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Civilian Radioactive Waste Management System
Management & Operating Contractor

Summary Report of Commercial Reactor Criticality Data for Quad Cities Unit 2

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September 1999

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HISTORY OF CHANGE PAGE

REV 00, Initial Issuance ..... July 14, 1998

REV 01, Update ..... September 1999

This is a complete revision. Node length changed to reflect equal length nodes, Tables 3-5, 3-6 and 4-1. Revised method to calculate fuel temperatures. Fuel temperatures in Tables 4-5 through 4-246 changed to reflect revised method. Added moderator density tabulations for last point in fuel history, Tables 4-5 through 4-246. Added heavy metal U-weight for each fuel type and linear weight of heavy metal U per node, Table 4-247. Control blade history data was added in Tables 4-257 and 4-258, replacing REV 00 Tables 4-257 through 4-234 (depleted blade axial exposure and radial power factor). Editorial changes are made throughout the report.

Acknowledgements

The author (preparer) would like to express his thanks to Commonwealth Edison for their assistance with gathering and verification of the information used to model the critical statepoint conditions for the Quad Cities Unit 2 reactor. The author would also like to thank Commonwealth Edison for granting permission to publish this information.

CONTENTS

FIGURES

Page

TABLES

Page

TABLES (cont.)

Page

TABLES (cont.)

Page

TABLES (cont.)

Page

TABLES (cont.)

Page

TABLES (cont.)

Page

TABLES (cont.)

1. INTRODUCTION

The "Summary Report of Commercial Reactor Criticality Data for Quad Cities Unit 2" contains the detailed information necessary to perform commercial reactor criticality (CRC) analyses for the Quad Cities Unit 2 (QC2) reactor.

1.1 PURPOSE

The United States Department of Energy (DOE) Office of Civilian Radioactive Waste Management (OCRWM) is developing a methodology for criticality analysis to support disposal of commercial spent nuclear fuel in a geologic repository. A revision to the *Disposal Criticality Analysis Methodology Topical Report* (DOE 1998a) on the disposal criticality analysis methodology will be submitted to the United States Nuclear Regulatory Commission (NRC) for formal review. This summary report provides data that will be used in analyses that will support the development of parts of the disposal criticality analysis methodology. Revision 01 of this summary report documents the most recent changes and additional data required to support the development of this methodology. This summary report was developed in accordance with QAP-3-5, REV 08.

1.2 OBJECTIVE

The objective of this report is to present the data required for performing analytical CRC evaluations for the QC2 reactor. Results from the CRC evaluations will support the development and validation of the neutronics models used for criticality analyses involving commercial spent nuclear fuel. These models and their validation will be discussed in the revised *Disposal Criticality Analysis Methodology Topical Report.*

1.3 SCOPE

The scope of this Summary Report is the presentation of data required to perform 6 statepoint calculations for Cycles 13 and 14 of QC2. The only interface for the development of the information in this document is with Framatome Cogema Fuels (FCF). FCF is one of the teammates of the Civilian Radioactive Waste Management System (CRWMS) Management and Operating Contractor (M&O). FCF requested and received permission from Commonwealth Edison, the owner/operator of QC2, to publish the non-proprietary information related to statepoint measurements that are recorded in this document. All the information contained in this report is documented in an FCF calculation file (FCF 1999). The data provided in FCF (1999) was obtained from various other reports, calculations, and drawings developed under a NRC approved quality assurance program (FCF 1997). The data has supported prior licensing submittals. The data has yet to be classified as "accepted data" per the retroactive procedural requirement of AP-SIII.2Q initiated by the July 27, 1999 issuance of the DOE Letter, "Accepted Data Call", from R. E. Spence to J. L. Younker (DOE 1999). The "accepted data" classification of this data is pending receipt of a DOE rationale concurrence letter approving the classification (TBV-1349).

1.4 QUALITY ASSURANCE

The Quality Assurance (QA) program applies to the development of this report. The data provided in this report will indirectly be used to develop the methodology for evaluating the Monitored Geologic Repository (MGR) waste package and engineered barrier segment. The QAP-2-3 (*Classification of Permanent Items*) evaluation entitled *Classification of the Preliminary MGDS Repository Design* (CRWMS M&O 1999a) has identified the waste package as a MGR (formerly MGDS) item important to safety and waste isolation. The Waste Package Operations responsible manager has evaluated the technical document development activity in accordance with QAP-2-0, *Conduct of Activities*. The QAP-2-0 activity evaluation, *Neutronics Methodology - SR*, WP-16 (CRWMS M&O 1999b), has determined that the preparation and review of this technical document is subject to *Quality Assurance Requirements and Description* (DOE 1998b) requirements. As specified in NLP-3-18, *Documentation of QA Controls on Drawings, Specifications, Design Analyses, and Technical Documents*, this activity is subject to QA controls. No scientific and engineering software or computational software was used in the development of this report.

1.5 USE OF COMPUTER SOFTWARE

No computer software was used in the development of the data summary report.

2. REACTOR DESIGN INFORMATION

2.1 REACTOR DESCRIPTION

This section provides general material and geometry data for modeling the QC2 reactor and internals. Quad Cities 2 is a General Electric boiling water reactor (BWR) with a rated power of 2511 MWt. The reactor core for Cycles 9 through 14 consisted of 724 GE 8x8 fuel assemblies. Figure 2-1 illustrates a typical core cell for an 8x8 lattice with a control blade. Table 2-1 summarizes core structure design information. A brief discussion of the reactor vessel internals is provided below.

The reactor vessel internal shroud is a stainless steel cylinder, which surrounds the reactor core and serves as a barrier to separate the upward flow of the coolant through the reactor core from the downward recirculation flow.

There are 53 incore nuclear instrumentation guide tubes extending up through the bottom of the reactor vessel to the core top grid. The guide tubes are inserted into the reactor through housings that are attached to the bottom head of the reactor vessel and extend down to the same level as the drive housing flanges. Twelve of the tubes are closed at the top end and are designed for the same pressure as the reactor vessel to prevent leakage of reactor water. Four of these twelve tubes are for the source range monitor detectors and the remaining eight are for the intermediate range monitor detectors. The other 41 incore nuclear instrumentation guide tubes are designed for the local power range monitor incore detector strings and include smaller guide tubes designed for the travelling incore probe.

Control of reactivity is accomplished by a combination of cruciform control blade movement and integral burnable absorbers. The control blades (CRBs) contain a boron carbide (B_4C) absorber material. Integral burnable absorbers are located in gadolinia-bearing (Gd_2O_3-UO_2) fuel rods placed at different axial and radial locations in the fuel assemblies. The 177 movable CRBs are used in the reactivity control system and are used to control the fission rate and fission density. The gadolina-bearing fuel rods (GDRs) are used to balance reactivity effects in fresh and partially burned BWR fuel.

Table 2-1. Quad Cities Unit 2 Core Design Information

Reactor Vessel	
Inner diameter	20 ft 11 in.
Base metal material	SA-302 Grade B
Wall thickness	6.125 in. minimum
Clad material	Weld-deposited E-308 stainless steel electrode
Clad thickness	0.125 in. minimum
Reactor Internals Material	
Shroud	304 stainless steel
Core top and bottom grids	Stainless steel
Fuel support piece	304 stainless steel
Control blade guide tubes	Stainless steel
Incore instrument tubes	304 stainless steel
Core	
Equivalent core diameter	182.2 in.
Circumscribed core diameter	189.7 in.
Core lattice pitch	12 in.
Total fuel assemblies in core	724

2.2 FUEL ASSEMBLY DESIGN INFORMATION

This section provides fuel assembly design data for Cycles 9 through 14 of the QC2 reactor. Material and geometry data for the fuel assembly components are included. The fuel assembly U-235 weight percentage enrichments and gadolinia (Gd_2O_3) enrichments for each fuel design of Cycles 9 through 14 are presented. A brief description of each fuel design used in QC2 Cycles 9 through 14 is provided below.

GE8x8EB (GE7) fuel is designed and manufactured by GE; fuel rods are pressurized to 3 atmospheres of helium and have two water rods. This fuel was used in QC2 Cycle 9 reloads. Figures 2-1 and 2-2 show the GE8x8EB fuel assembly layout.

GE8 fuel is designed and manufactured by GE; 8x8 fuel with 4 water rods, axially zoned enrichments and GDRs, fuel rod pressurization increased to 5 atmospheres of helium. This fuel was used in QC2 Cycle 10 reloads.

GE8x8NB (GE9) fuel is designed and manufactured by GE. This barrier type fuel was first used in QC2 Cycle 11 reloads. The fuel has ferrule type spacer grids, large diameter water rods which span 4 fuel rod positions, axially zoned enrichment, and integral burnable absorbers. Additionally, this fuel rod has a 12-inch instead of 6-inch natural uranium blanket at the top, barrier cladding, and is pressurized to 5 atmospheres of helium. Figures 2-3 and 2-5 show the GE8x8NB fuel assembly layout.

GE8x8NB-3 (GE10) fuel is designed and manufactured by GE. This offset barrier type fuel was first used in QC2 Cycle 14 reloads. It has a fuel channel that is 0.254 cm thick at the corners, 0.1651 cm thick on the sides, and uses flow directors that are located inside the channel. This fuel has a 0.1016 cm offset toward the control blade. Figures 2-4 and 2-5 show the GE8x8NB-3 fuel assembly layout.

2.3 GENERAL FUEL BATCH DATA

Table 2-2 presents material and geometry data for each fuel batch in Cycles 9-14. The radial dimensions of the fuel clad and water tube are also presented. This data can be used for fuel assembly modeling in the depletion calculations and reactor criticality calculations for the statepoints defined in Table 3-8. The number of digits for cited values does not necessarily indicate accuracy. It may reflect results of a calculation, values reported in a reference, or be an artifact of conversion.

Table 2-2. Quad Cities Unit 2 Fuel Assembly Core Data

Fuel Assembly Array Size and Types	GE 8x8R
Number of Fuel Pins (N_R) / Assembly	60 or 62
Number of Water Rods	1, 2, or 4
Number of Assemblies in Core	724
System Pressure	1020 psia (7.03265 MPa)
Core Height (H)	145.24 in. (368.9096 cm)
Pin Pitch	0.64 in. (1.6256 cm)
Assembly Pitch (P)	6 in. (15.24 cm)
Fuel Pin Cladding Outer Diameter (OD)	0.483 in. (1.2268 cm)
Fuel Pin Cladding Inner Diameter (ID)	0.419 in. (1.06426 cm)
Fuel Pin Clad Thickness	0.032 in. (0.08128 cm)
Fuel Pin Cladding Material	Zircaloy-2
Fuel Pellet Diameter	~0.41 in. (1.0414 cm)
Fuel Material	UO_2
Water Rod 4-pin Outside Diameter	2.6187 cm
Water Rod 4-pin Inside Diameter	2.4561 cm
Water Rod 2-pin Outside Diameter	2.4536 cm
Water Rod 2-pin Inside Diameter	2.1285 cm
Large Water Rod OD and ID	Use 4-pin dimensions
Water Rod Material	Zircaloy
Channel - Inner Width	5.278 in. (13.4061 cm)
- Thickness	0.080 in. (0.2032 cm) Cycles 9-13 fuel
- Thickness	0.100 in. corner and 0.065 in. wall for Cycle 14 fuel
Channel Material	Zircaloy-2 and -4
Reference Moderator Density	0.7396 g/cm^3

Additional fuel cycle design, core operations, and reactor criticality statepoint information is provided in Section 4.

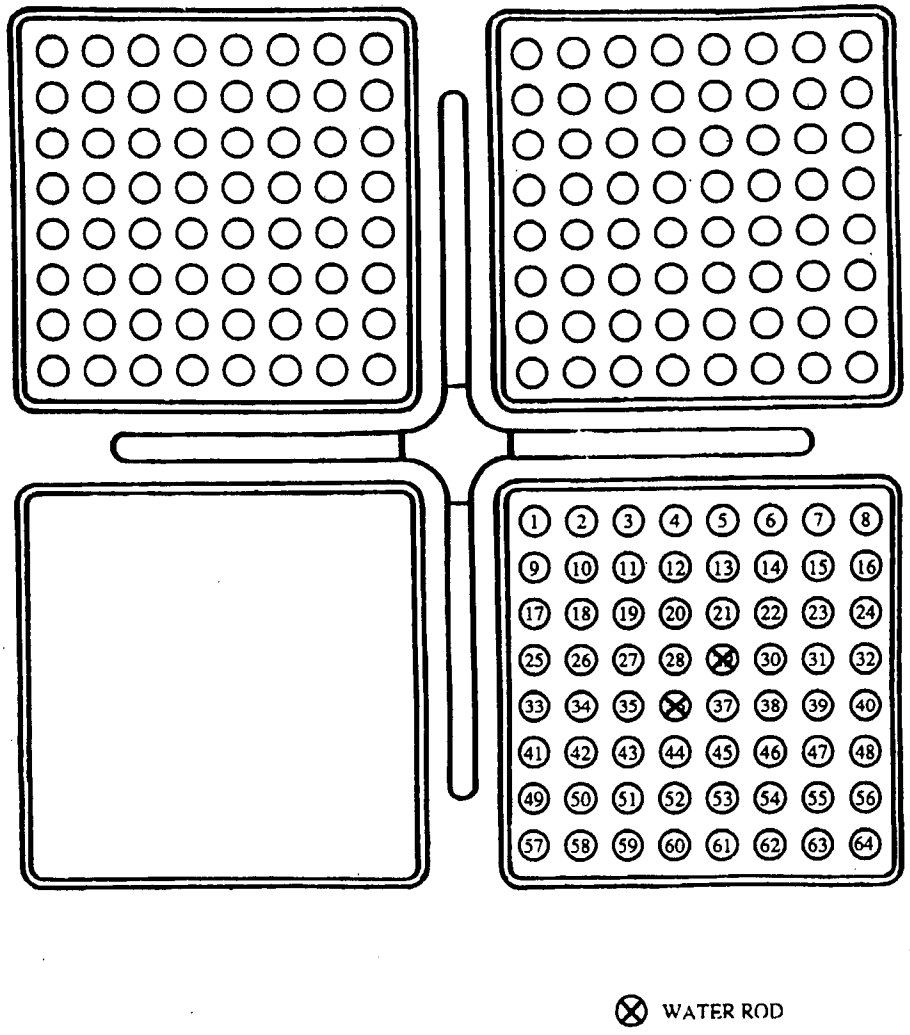


Figure 2-1. QC2 Typical Core Cell for 8x8 Array

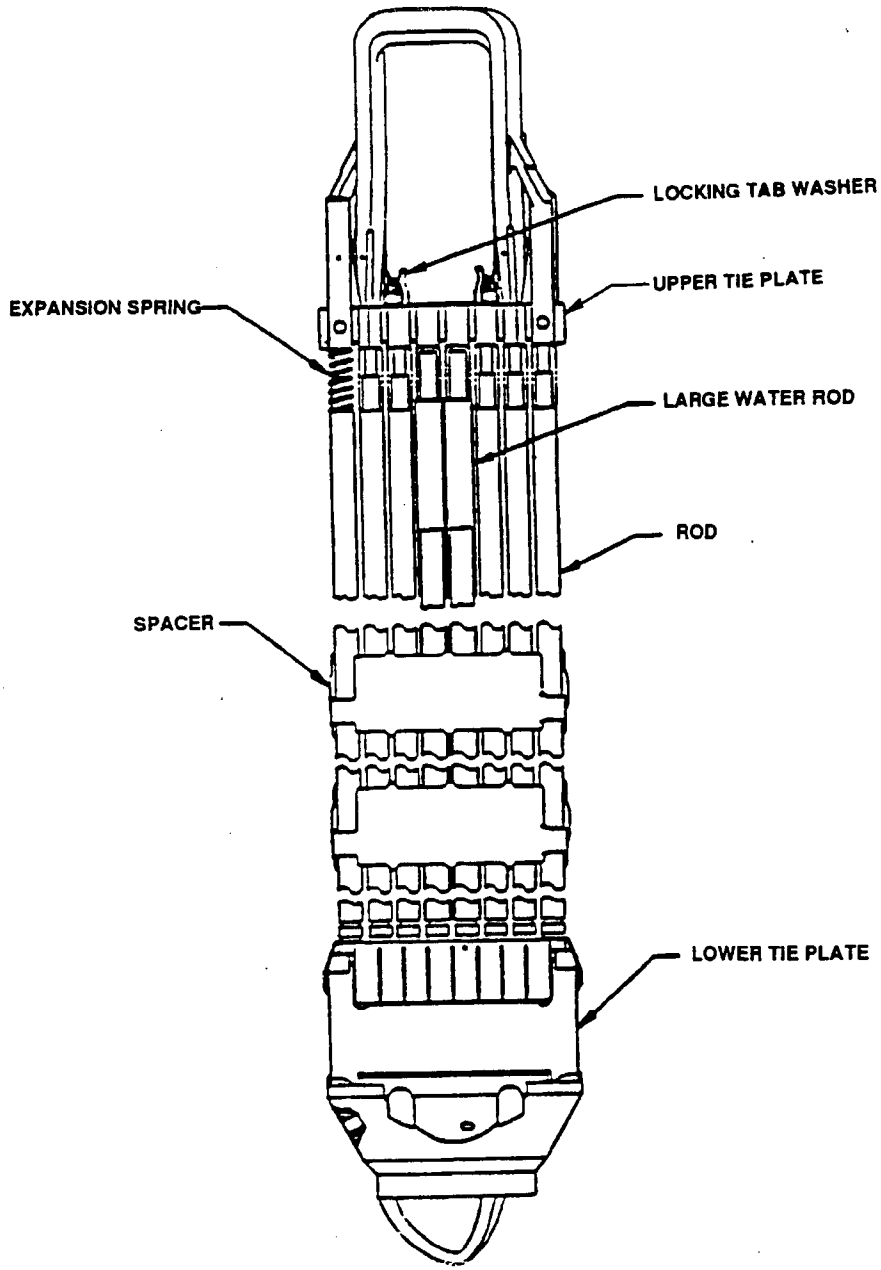


Figure 2-2. GE 8x8EB Fuel Assembly

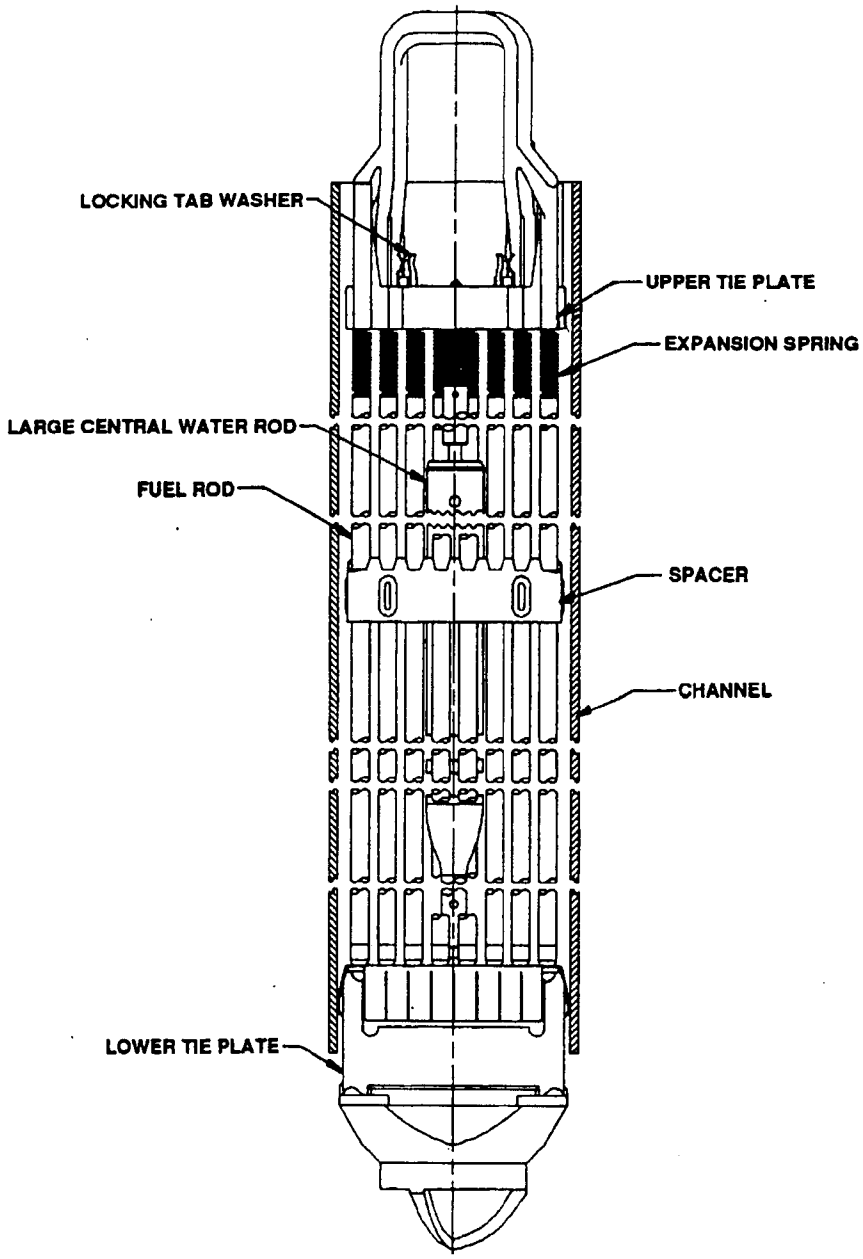


Figure 2-3. GE 8x8NB Fuel Assembly

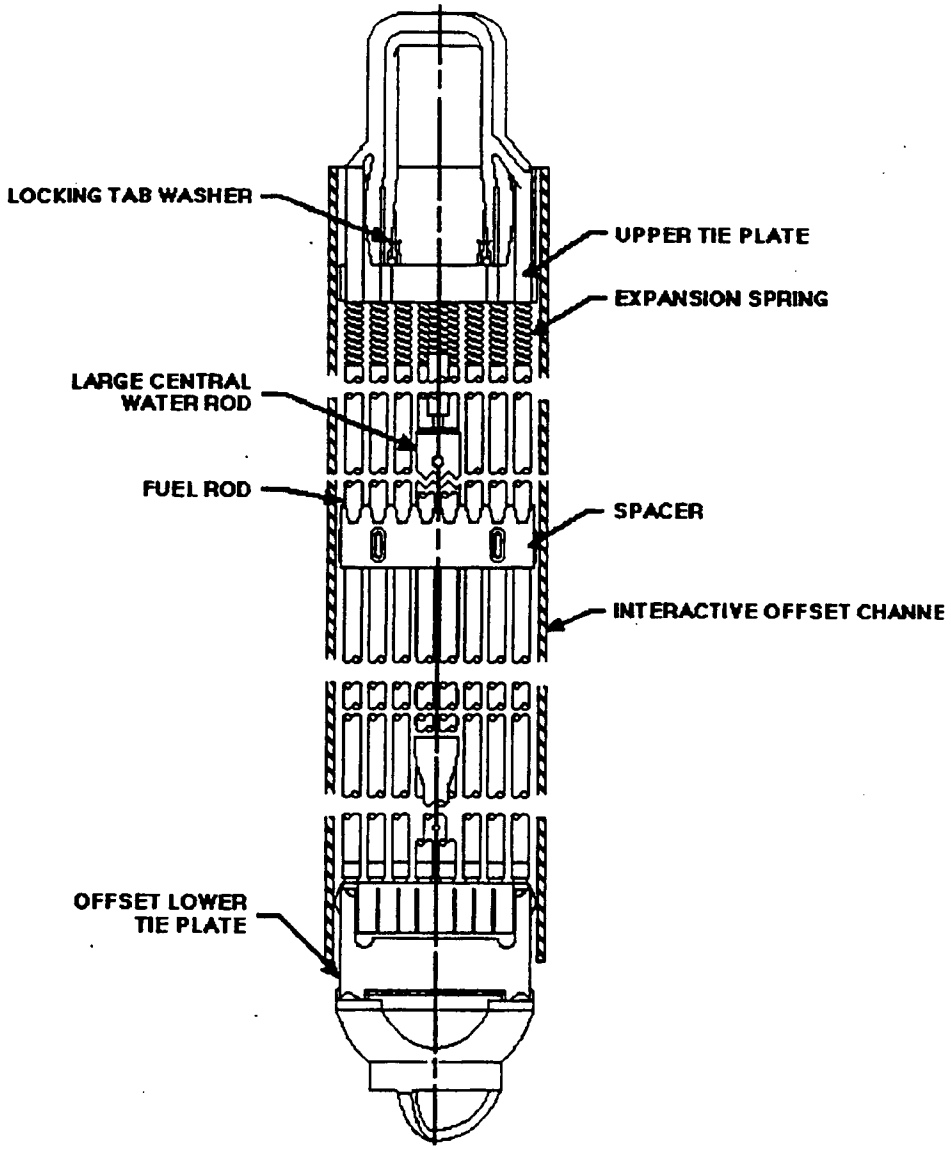


Figure 2-4. GE 8x8NB-3 Fuel Assembly

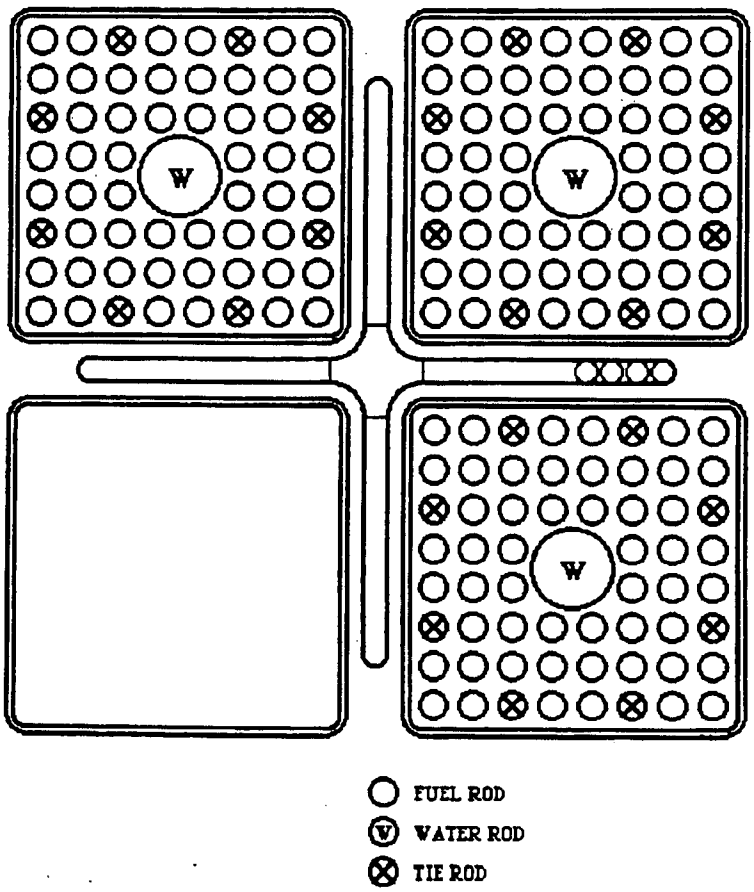


Figure 2-5. QC2 Typical Core Cell for GE8x8NB and GE 8x8NB-3 Array

3. FUEL CYCLE DESIGN INFORMATION

This section provides fuel assembly design data for Cycles 9 through 14 of the QC2 reactor. Material and geometry data for the fuel assembly components are presented in Section 3.1. The fuel assembly locations for Cycles 9 through 14, fuel enrichments, and burnable absorber enrichments for each assembly are presented in Section 3.2.

3.1 FUEL BATCH DATA

Material and geometry data for each fresh fuel batch present in Cycles 9-14 are given in Table 3-1. This includes the fuel assembly type, the average enrichment, and the diameter of the fuel. Information concerning the use of CRBs and the mode of operation (operated with regulating CRBs inserted) are given in Section 4.2. The radial dimensions of the fuel clad are also presented. This data should be used in modeling each fuel assembly type for burnup calculations and the reactor criticality calculations for the statepoints defined in Table 3-8. Table 3-3 provides the number of each type of fuel assembly in the core during Cycles 9 through 14.

The length of each fuel cycle, expressed as effective full power days (EFPD), is provided in Table 3-8. The time during each cycle where statepoint criticality data was measured is also presented.

Table 3-1. Fuel Assembly Cycle Description for QC2 Cycles 9-14

Cycle	SAS2H Design	Fresh Fuel Batch Type	Fuel Design	Fuel Type	Assy. Average Weight % U-235	No. of Water Rods
9	A	GE7	GE8x8EB	6	2.986	2
	B	GE7	GE8x8EB	7	2.986	2
10	C	GE8	GE8x8EB	9	3.003	4
	D	GE8	GE8x8EB	10	3.165	4
11	E	GE9	GE8x8NB	14	3.103	1
	F	GE9	GE8x8NB	12	2.989	1
12	G	GE9	GE8x8NB	17	2.862	1
	H	GE9	GE8x8NB	18	2.860	1
13	J	GE9	GE8x8NB	16	3.085	1
	K	GE9	GE8x8NB	15	3.099	1
14	L	GE10	GE8x8NB-3	1	3.12	1
	M	GE10	GE8x8NB-3	2	3.16	1

Description	Material	OD (cm)	ID (cm)
Fuel Clad	Zircaloy-2	1.2268	1.06426
Fuel Pellet	UO_2	1.0414	

Table 3-2. Not Used

Table 3-3. Fuel Assembly Types for QC2 Cycles 9-14

SAS2H	Fuel	Product	Number of Assemblies in Core					
Designation	Type	Line	Cycle 9	Cycle 10	Cycle 11	Cycle 12	Cycle 13	Cycle 14
N/A[1]	Other[2]	Other	572	408	240	88		
A	6	GE7	88	88	88	88	60	
B	7	GE7	64	64	64	64	36	
C	9	GE8		92	92	92	92	52
D	10	GE8		72	72	72	72	64
E	14	GE9			96	96	96	96
F	12	GE9			72	72	72	72
G	17	GE9				72	72	72
H	18	GE9				80	80	80
J	16	GE9					112	112
K	15	GE9					32	32
L	1	GE10						16
M	2	GE10						128
Total in Core			724	724	724	724	724	724

[1] Not applicable.

[2] These assemblies are active in the reactor core during the specific cycle but are not required for the QC2 Cycle 9-14 depletion calculations.

Table 3-4 provides a summary of the average axial enrichments for each axial zone, GDR enrichments, and channel thicknesses. Table 3-4 also shows the fuel and gadolinia enrichments for the GDR pellets. Tables 3-5 and 3-6 provide axial compositions for each type of fuel. These compositions are provided for the 24 node format in Table 3-5 and for 10 node format in Table 3-6. The 24 node and 10 node formats are discussed in Section 4.1.

Table 3-4. Fuel Assembly Cross Section Properties for QC2 Cycles 9-14

Cross Section	Number of	Average	Gadolinia		Channel
Number	Rods	(wt% U-235)	No. of Rods	(wt%)	Thick. (in.)
100	60	0.710			0.080
101	62	3.190	7	3.0	0.080
102	62	3.190	7	4.0	0.080
103	60	3.370	9	3.0	0.080
104	60	3.194	9	3.0	0.080
105	60	3.375	7	4.0	0.080
106	60	3.215	9	3.0	0.080
107	60	3.343	7	3.0	0.080
108	60	3.370	2 / 9	4.0 / 3.0	0.080
109	60	3.505	7	3.0	0.080
110	60	3.505	2 / 7	4.0 / 3.0	0.080
111	60	0.710			0.100
112	62	0.710			0.080
113	60	0.710			0.080
114	60	3.358	3 / 4	4.0 / 3.0	0.100
115	60	3.537	1 / 6	4.0 / 3.0	0.100
116	60	3.358	7	3.0	0.100
117	53	0.710			0.100
118	60	3.060	7	3.0	0.080
119	60	3.238	7	3.0	0.080
120	60	3.238	2 / 7	4.0 / 3.0	0.080
121	60	0.710			0.080
122	60	3.343	7	3.0	0.080
123	60	3.505	7	3.0	0.080
124	60	0.710			0.080
125	60	3.323	8 / 2	4.0 / 3.0	0.080
126	60	3.485	8 / 2	4.0 / 3.0	0.080
127	60	3.413	6 / 2	4.0 / 3.0	0.100
128	60	3.573	6 / 2	4.0 / 3.0	0.100
129	60	3.413	8	3.0	0.100
130	52	0.710			0.100
131	53	0.710			0.080
132	51	0.710			0.080
133	51	0.710			0.080
134	49	0.710			0.080
135	51	0.710			0.080
136	53	0.710			0.080
137	53	0.710			0.080
138	50	0.710			0.080

Table 3-5. 24 Node Fuel Assembly Axial Composition for QC2 Cycles 9-14
Cross Section Number by Node

Assembly Nodes	Node Length (in.)	Node Length (cm)	Type 6	Type 7	Type 9	Type 10	Type 12	Type 14	Type 15	Type 16	Type 17	Type 18	Type 1	Type 2
Top 24	6	15.24	112	112	132	131	134	133	136	138	135	137	117	130
23	6	15.24	101	102	104	105	100	100	121	124	100	100	111	111
22	6	15.24	101	102	104	105	107	107	122	125	118	118	116	129
21	6	15.24	101	102	104	105	107	107	122	125	118	118	116	129
20	6	15.24	101	102	104	105	107	107	122	125	118	118	116	129
19	6	15.24	101	102	104	105	108	110	123	126	120	119	115	128
18	6	15.24	101	102	104	105	108	110	123	126	120	119	115	128
17	6	15.24	101	102	104	105	108	110	123	126	120	119	115	128
16	6	15.24	101	102	104	105	103	109	123	126	119	119	115	128
15	6	15.24	101	102	104	105	103	109	123	126	119	119	115	128
14	6	15.24	101	102	104	105	103	109	123	126	119	119	115	128
13	6	15.24	101	102	104	105	103	109	123	126	119	119	115	128
12	6	15.24	101	102	104	105	103	109	123	126	119	119	115	128
11	6	15.24	101	102	104	105	103	109	123	126	119	119	115	128
10	6	15.24	101	102	104	105	103	109	123	126	119	119	115	128
9	6	15.24	101	102	104	105	103	109	123	126	119	119	115	128
8	6	15.24	101	102	104	105	106	107	122	125	118	118	114	127
7	6	15.24	101	102	104	105	106	107	122	125	118	118	114	127
6	6	15.24	101	102	104	105	106	107	122	125	118	118	114	127
5	6	15.24	101	102	104	105	106	107	122	125	118	118	114	127
4	6	15.24	101	102	104	105	106	107	122	125	118	118	114	127
3	6	15.24	101	102	104	105	106	107	122	125	118	118	114	127
2	6	15.24	101	102	104	105	106	107	122	125	118	118	114	127
Bottom 1	6	15.24	112	112	113	113	100	100	121	124	100	100	111	111
Average Enrichment wt% U-235			2.986	2.986	3.003	3.165	2.989	3.103	3.099	3.085	2.862	2.860	3.12	3.16

Table 3-6. 10 Node Fuel Assembly Axial Composition for QC2 Cycles 9-14 Cross Section Number by Node

	SAS2H Nodes	Node Length		Type 6 Fuel	Type 7 Fuel	Type 9 Fuel	Type 10 Fuel
		(in.)	(cm)				
Top	10	6	15.24	112	112	132	131
	9	24	60.96	101	102	104	105
	8	18	45.72	101	102	104	105
	7	18	45.72	101	102	104	105
	6	18	45.72	101	102	104	105
	5	12	30.48	101	102	104	105
	4	18	45.72	101	102	104	105
	3	12	30.48	101	102	104	105
	2	12	30.48	101	102	104	105
Bottom	1	6	15.24	112	112	113	113
Average Enrichment wt% U-235				2.986	2.986	3.003	3.165

SAS2H Nodes	Node Length		Type 12 Fuel	Type 14 Fuel	Type 15 Fuel	Type 16 Fuel	Type 17 Fuel	Type 18 Fuel	Type 1 Fuel	Type 2 Fuel
	(in.)	(cm)								
10	6	15.24	134	133	136	138	135	137	117	130
	6	15.24	100	100	121	124	100	100	111	111
9	18	45.72	106	107	122	125	118	118	116	129
8	18	45.72	108	110	123	126	120	119	115	128
7	18	45.72	103	109	123	126	119	119	115	128
6	18	45.72	103	109	123	126	119	119	115	128
5	12	30.48	103	109	123	126	119	119	115	128
4	18	45.72	106	107	122	125	118	118	114	127
3	12	30.48	106	107	122	125	118	118	114	127
2	12	30.48	106	107	122	125	118	118	114	127
1	6	15.24	100	100	100	124	100	100	111	111
Average Enrichment wt% U-235			2.989	3.103	3.099	3.085	2.862	2.860	3.120	3.160

3.2 FUEL ASSEMBLY DATA

This section provides operating cycle and fuel assembly histories for QC2 Cycles 9 through 14 and statepoint (SP) histories during Cycles 13 and 14. The time during Cycles 13 and 14 where statepoint criticality data was measured is also presented.

Table 3-7 summarizes the QC2 core operating cycle history for Cycles 9 through 14. This table provides the cycle depletion as a function of EFPD. Shutdown history is provided in terms of calendar days between cycles.

Table 3-7. Core Operating Cycle History for QC2 Cycles 9-14

Cycle	Beginning of Cycle (BOC) Month-Day-Year	End of Cycle (EOC) Month-Day-Year	EFPD
9	2/1/1987	4/10/1988	348.44
10	6/25/1988	2/3/1990	467.48
11	5/8/1990	12/20/1991	484.20
12	5/8/1992	3/6/1993	263.70
13	6/1/1993	3/4/1995	387.07
14	7/20/1995	--	--

Shutdown History Between Cycles

Outage EOC to BOC	Calendar Days
9 to 10	75
10 to 11	95
11 to 12	138
12 to 13	85
13 to 14	136

A statepoint is defined as a point at which a reactor criticality startup test is performed. Actual measured data must exist at the selected statepoint so that depletion and reactivity calculations can be performed. Statepoints of this type typically represent conditions that exist when a reactor first reaches a critical state at BOC and at restarts during cycle operation. At the point of the initial critical configuration for each BOC or restart statepoint, the reactor is considered to be at zero power.

The BOC and restart data for Quad Cities Unit 2 contained in this document includes cores which contain both fresh (BOC) and burned fuel and cores that have all burned fuel (restarts). The depletion and reactivity calculations will encompass various fuel burnup and U-235 enrichments and will include long and short decay times from shutdown to startup of various cycles. Key statepoints have been chosen for which the assembly history is available so that effective multiplication factors (k_{eff}) predicted by depletion and reactivity calculations can be compared to measured values of k_{eff} taken during critical experiments.

Table 4-259 provides the critical conditions for the BOCs and restarts during cycle operation where a statepoint was chosen. This table also includes the statepoint number and EFPDs during the cycle for which the statepoint is selected.

Some of the fuel assemblies present in Cycle 13 and Cycle 14 for the statepoint evaluations were initially inserted in the core during Cycles 9 through 12, as well as Cycles 13 and 14 reloads. The modeling of the fuel assemblies which were inserted prior to Cycles 13 and 14 requires fuel operating history data from the point when the fresh fuel assembly was first inserted into the core. This data is provided at datapoints for the cycles prior to Cycles 13 and 14 and at statepoints and datapoints for Cycles 13 and 14. In addition to the 6 statepoints, 10 datapoints are selected at BOC and at middle of cycle (MOC) of Cycles 9 through 12 and at MOC of Cycles 13 and 14. Table 3-8 provides a listing of these datapoints.

Table 3-7 provides shutdown and startup dates for Cycle 9 through 14. Table 4-259 provides the startup date for each statepoint. The cycle shutdown and startup dates could be used in determining the downtime between cycles for fuel assemblies when performing the burnup calculations.

Table 3-8. Datapoints and Statepoints for SAS2H Input Listings

Data Point	Cycle	Cycle Position	Burnup	EFPD
DP1	9	BOC	0	0
DP2	9	MOC	2985.9 MWd/STU[1]	167.47
	9	EOC	6212.4 MWd/STU	348.44
DP3	10	BOC	0	0
DP4	10	MOC	3985.1 MWd/STU	222.47
	10	EOC	8374.1 MWd/STU	467.48
DP5	11	BOC	0	0
DP6	11	MOC	3554.16 MWd/MTU	180.3
	11	EOC	9544.11 MWd/MTU	484.2
DP7	12	BOC	0	0
DP8	12	MOC	2820.04 MWd/MTU	142.2
	12	EOC	5229.25 MWd/MTU	263.7
SP9	13	BOC	0	0
SP10	13	MOC	201.61 MWd/MTU	10.1
SP11	13	MOC	2257.20 MWd/MTU	112.94
DP12[2]	13	MOC	4484.31 MWd/MTU	224.4
SP13	13	MOC	6489.46 MWd/MTU	324.73
	13	EOC	7735.18 MWd/MTU	387.07
SP14	14	BOC	0	0
DP15[2]	14	MOC	1878.65 MWd/MTU	93.56
SP16	14	MOC	4238.45 MWd/MTU	211.09

[1]Burnup for Cycles 9 and 10 are given in MWd/Short Ton U units.
[2]Exposure and critical configuration data do not match at these datapoints. Isotopic concentrations determined in depletion calculations at these datapoints cannot be used for reactivity calculations.

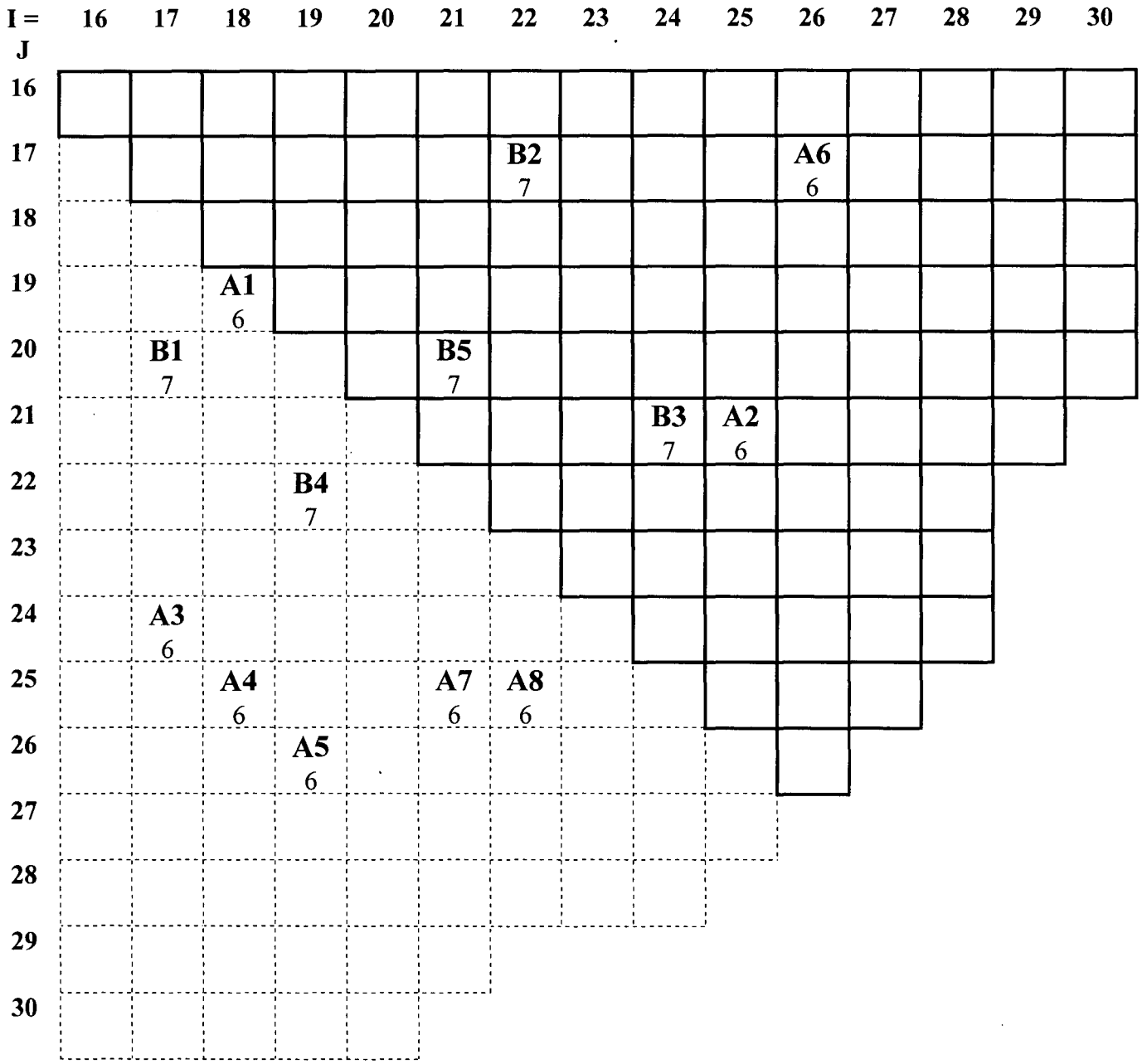
The QC2 reactor core contains 724 fuel assemblies. The core loading is approximately 1/8 core symmetric. To aid in the depletion calculations and the generation of isotopic data for the statepoint calculations, the selection of fuel assemblies is reduced from 724 to the number described by the core symmetry. Table 3-9 traces each fuel assembly by identification and cycle from the time the assembly was first inserted in the reactor through Cycle 14. Note that only those fuel assemblies which contribute to the statepoint calculations in Cycle 13 and Cycle 14 are included in this table. The coordinates given in Figures 3-7 through 3-12 indicate the location of each assembly in each cycle. In Figures 3-7 through 3-12 "I" represents row and "J" represents column for Cycles 11 through 14; "J" represents row and "I" represents column for Cycles 9 and 10. Six of the 1/8 core symmetric Cycle 13 fuel assemblies inserted in Cycle 14 are selected

outside of the Cycle 14 - 1/8 core. This assembly selection process ensures that the complete depletion history is included in the calculation for all of the required fuel assemblies. This selection process reduces the required number of assemblies to 121.

Each fuel assembly is given a unique alphanumeric designation, which is then used in tracking the assembly through its lifetime in the core. Unique assembly numbers are assigned for each of the selected 121 fuel assemblies. Starting with the letters A and B for Cycle 9, each subsequent cycle is assigned two unique letter designations (C and D for Cycle 10; E and F for Cycle 11; G and H for Cycle 12; J and K for Cycle 13; L and M for Cycle 14). In addition to the letter designation, each fuel assembly is assigned a number. This number is assigned in the ascending order of the fuel assembly number.

Table 3-10 indicates the location of assemblies in active CRB locations. This data is important for the modeling of CRB insertions during the lifetime of the assembly.

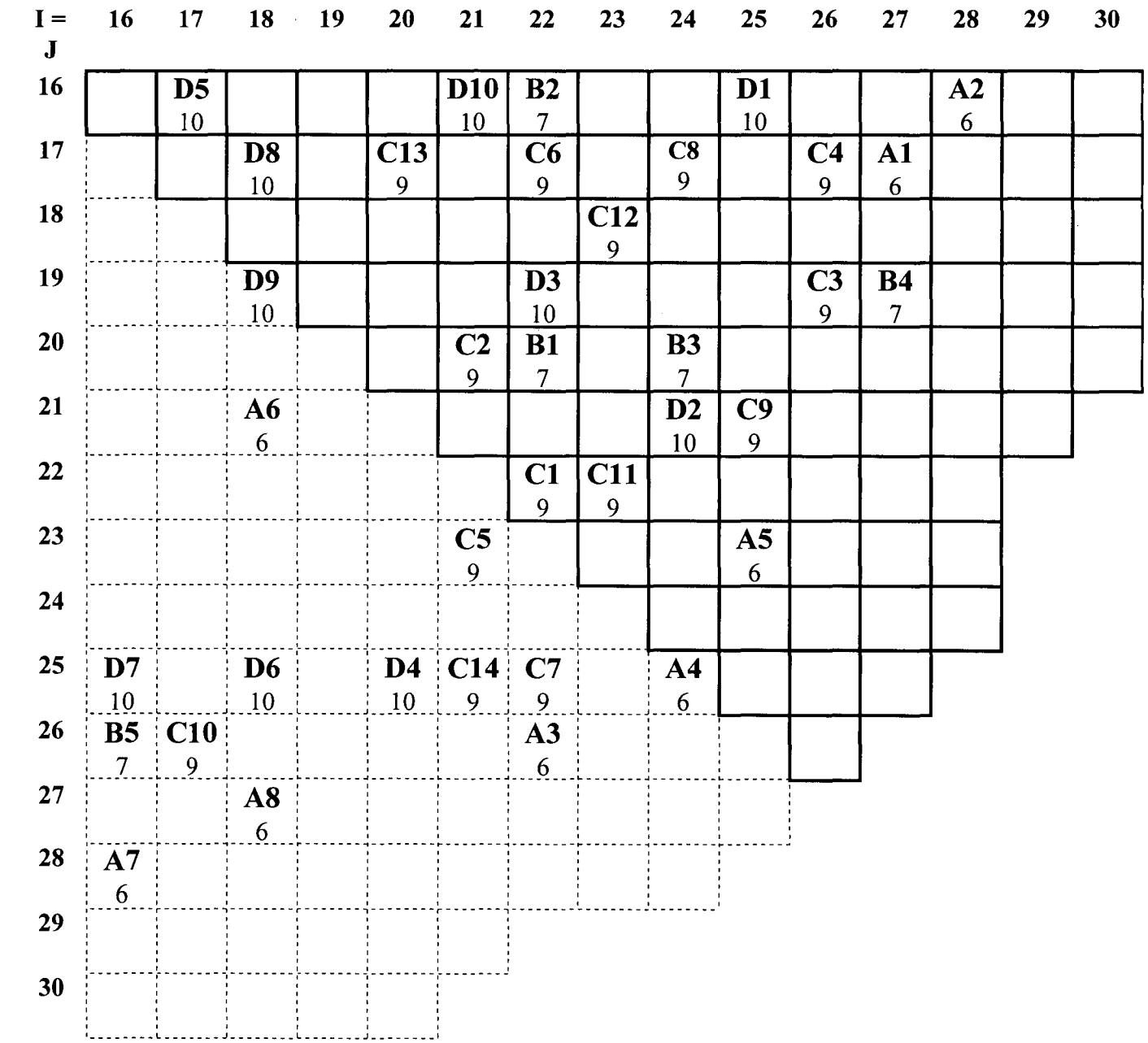
Figure 3-1. Not Used
Figure 3-2. Not Used
Figure 3-3. Not Used
Figure 3-4. Not Used
Figure 3-5. Not Used
Figure 3-6. Not Used



Fi
N

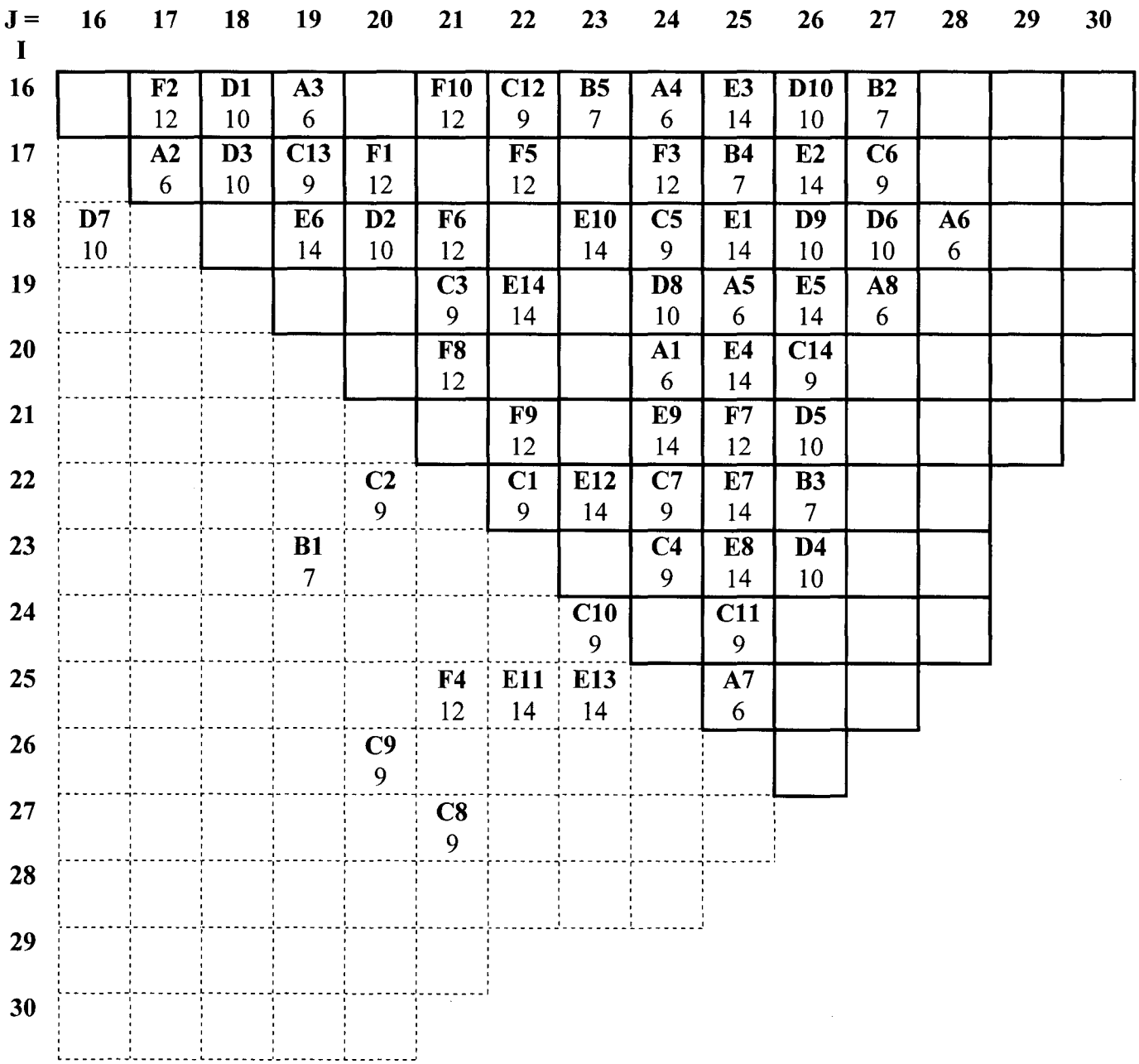
Fuel Assembly Designation (**Ai** and **Bi** are fresh fuel assemblies in Cycle 9)
Fuel Type (Types 6 and 7 are fresh fuel assemblies in Cycle 9)

Figure 3-7. Cycle 9 Fuel Assembly Identification, Location, and Type for QC2



Fi N	Fuel Assembly Designation (**Ci** and **Di** are fresh fuel assemblies in Cycle 10) Fuel Type (Types 9 and 10 are fresh fuel assemblies in Cycle 10)

Figure 3-8. Cycle 10 Fuel Assembly Identification, Location, and Type for QC2



Fi
N

Fuel Assembly Designation (**Ei** and **Fi** are fresh fuel assemblies in Cycle 11)
Fuel Type (Types 12 and 14 are fresh fuel assemblies in Cycle 11)

Figure 3-9. Cycle 11 Fuel Assembly Identification, Location, and Type for QC2

J = I	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
16	**A7** 6	**E5** 14	**G11** 17	**C3** 9	**C7** 9	**C4** 9	**H10**	**C6** 9	**D6** 10	**D4** 10	**H11** 18	**E6** 14	**A6** 6	**A1** 6	
17		**E4** 14		**H9** 18	**F9** 12	**G8** 17	**D1** 10	**G9** 17	**D5** 10	**G10** 17	**C14** 9	**E7** 14	**E9** 14	**B2** 7	
18			**E13** 14	**D8** 10	**H5** 18	**F5** 12	**H6** 18	**E2** 14	**H7** 18	**E1** 14	**H8** 18	**E3** 14	**A4** 6	**B4** 7	
19				**C8** 9	**D10** 10	**H3** 18	**D2** 10	**C5** 9	**D9** 10	**H4** 18	**C12** 9	**E14** 14	**A2** 6		
20						**F3** 12	**G6** 17	**D3** 10	**C11** 9	**G7** 17	**E10** 14	**F7** 12	**A5** 6		
21	**C10** 9					**E8** 14	**C13** 9	**G4** 17	**H2** 18	**F2** 12	**G5** 17				
22		**D7** 10			**G2** 17			**F6** 12	**E12** 14	**G3** 17	**F8** 12	**B3** 7			
23								**C1** 9		**F10** 12	**F1** 12				
24								**C2** 9		**A8** 6	**A3** 6	**B5** 7			
25															
26	**H1** 18	**C9** 9				**G1** 17									
27		**E11** 14			**F4** 12										
28															
29				**B1** 7											
30															

Fi N	Fuel Assembly Designation (**Gi** and **Hi** are fresh fuel assemblies in Cycle 12) Fuel Type (Types 17 and 18 are fresh fuel assemblies in Cycle 12)

Figure 3-10. Cycle 12 Fuel Assembly Identification, Location, and Type for QC2

J = I	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
16	**C4** 9	**J11** 16	**F3** 12	**G9** 17	**F8** 12	**K3** 15	**F6** 12	**H7** 18	**F5** 12	**J14** 16	**E6** 14	**E5** 14	**H8** 18	**D8** 10	**A4** 6
17		**E8** 14	**J16** 16	**C6** 9	**K4** 15	**C3** 9	**J7** 16	**C2** 9	**K1** 15	**E4** 14	**G2** 17	**C8** 9	**G3** 17	**D2** 10	**B2** 7
18			**C10** 9	**K2** 15	**G8** 17	**J10** 16	**H6** 18	**J5** 16	**H5** 18	**J3** 16	**E3** 14	**G10** 17	**F4** 12	**D4** 10	**B3** 7
19				**C9** 9	**F10** 12	**C7** 9	**J13** 16	**F2** 12	**E12** 14	**J2** 16	**E10** 14	**H11** 18	**D6** 10	**D3** 10	**A3** 6
20					**C14** 9	**J8** 16	**H10** 18	**E2** 14	**H4** 18	**J1** 16	**E1** 14	**G1** 17	**D10** 10	**C5** 9	**B4** 7
21			**J9** 16			**E13** 14	**J6** 16	**F9** 12	**J15** 16	**H3** 18	**G4** 17	**H9** 18	**A8** 6	**A5** 6	
22				**J12** 16			**C1** 9	**J4** 16	**H2** 18	**E9** 14	**E14** 14	**C11** 9	**A6** 6		
23								**E7** 14	**F1** 12	**G7** 17	**D5** 10	**D9** 10	**B5** 7		
24									**E11** 14	**G11** 17	**D1** 10	**C12** 9	**A2** 6		
25										**A7** 6	**C13** 9	**A1** 6			
26		**G6** 17									**B1** 7				
27				**H1** 18	**G5** 17										
28			**F7** 12												
29															
30															

Fi N	Fuel Assembly Designation (**Ji** and **Ki** are fresh fuel assemblies in Cycle 13) Fuel Type (Types 15 and 16 are fresh fuel assemblies in Cycle 13)

Figure 3-11. Cycle 13 Fuel Assembly Identification, Location, and Type for QC2

J = I	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
16	**F4** 12	**M1** 2	**G9** 17	**G10** 17	**H3** 18	**J9** 16	**H8** 18	**J5** 16	**H2** 18	**M2** 2	**H7** 18	**G11** 17	**J8** 16	**E2** 14	**D5** 10
17		**F7** 12	**M3** 2	**G4** 17	**M4** 2	**F1** 12	**M5** 2	**E9** 14	**M6** 2	**H10** 18	**G1** 17	**K1** 15	**J4** 16	**E1** 14	**D3** 10
18			**E7** 14	**M7** 2	**E8** 14	**M8** 2	**F8** 12	**M9** 2	**G8** 17	**M10** 2	**J6** 16	**J11** 16	**E12** 14	**F3** 12	**D8** 10
19				**G6** 17	**J3** 16	**G7** 17	**L1** 1	**H9** 18	**H1** 18	**M11** 2	**H5** 18	**K4** 15	**E10** 14	**F5** 12	**D6** 10
20			**E13** 14		**G2** 17	**M12** 2	**H6** 18	**E14** 14	**G3** 17	**M13** 2	**J1** 16	**J15** 16	**F6** 12	**D4** 10	**C9** 9
21	**J10** 16					**E11** 14	**M14** 2	**M15** 2	**M16** 2	**L2** 1	**J14** 16	**E3** 14	**D9** 10	**C13** 9	
22							**J12** 16	**F10** 12	**K3** 15	**H4** 18	**K2** 15	**E6** 14	**C12** 9		
23								**J13** 16	**J2** 16	**J16** 16	**E5** 14	**F2** 12	**D10** 10		
24				**H11** 18					**C5** 9	**J7** 16	**E4** 14	**F9** 12	**C6** 9		
25										**D2** 10	**C11** 9	**C8** 9			
26		**G5** 17									**D7** 10				
27															
28									**C4** 9						
29															
30					**C14** 9										

Fi N	Fuel Assembly Designation (**Li** and **Mi** are fresh fuel assemblies in Cycle 14) Fuel Type (Types 1 and 2 are fresh fuel assemblies in Cycle 14)

Figure 3-12. Cycle 14 Fuel Assembly Identification, Location, and Type for QC2

Table 3-9. Fuel Assembly Location in Core for QC2 Cycles 9-14

Fuel Assembly	Cycle First Inserted	Fuel Type	Cycle 9 Location (J,I)[1]	Cycle 10 Location (J,I)	Cycle 11 Location (I,J)	Cycle 12 Location (I,J)	Cycle 13 Location (I,J)	Cycle 14 Location (I,J)
Cycle 9								
A1	9	6	19, 18	17, 27	20, 24	16, 29	25, 27	
A2	9	6	21, 25	16, 28	17, 17	19, 28	24, 28	
A3	9	6	24, 17	26, 22	16, 19	24, 26	19, 30	
A4	9	6	25, 18	25, 24	16, 24	18, 28	16, 30	
A5	9	6	26, 19	23, 25	19, 25	20, 28	21, 29	
A6	9	6	17, 26	21, 18	18, 28	16, 28	22, 28	
A7	9	6	25, 21	28, 16	25, 25	16, 16	25, 25	
A8	9	6	25, 22	27, 18	19, 27	24, 25	21, 28	
B1	9	7	20, 17	20, 22	23, 19	29, 19	26, 26	
B2	9	7	17, 22	16, 22	16, 27	17, 29	17, 30	
B3	9	7	21, 24	20, 24	22, 26	22, 27	18, 30	
B4	9	7	22, 19	19, 27	17, 25	18, 29	20, 30	
B5	9	7	20, 21	26, 16	16, 23	24, 27	23, 28	
Cycle 10								
C1	10	9		22, 22	22, 22	23, 23	22, 22	
C2	10	9		20, 21	22, 20	24, 23	17, 23	
C3	10	9		19, 26	19, 21	16, 19	17, 21	
C4	10	9		17, 26	23, 24	16, 21	16, 16	28, 24
C5	10	9		23, 21	18, 24	19, 23	20, 29	24, 24
C6	10	9		17, 22	17, 27	16, 23	17, 19	24, 28
C7	10	9		25, 22	22, 24	16, 20	19, 21	
C8	10	9		17, 24	27, 21	19, 19	17, 27	25, 27
C9	10	9		21, 25	26, 20	26, 17	19, 19	20, 30
C10	10	9		26, 17	24, 23	21, 16	18, 18	
C11	10	9		22, 23	24, 25	20, 24	22, 27	25, 26
C12	10	9		18, 23	16, 22	19, 26	24, 27	22, 28
C13	10	9		17, 20	17, 19	21, 22	25, 26	21, 29
C14	10	9		25, 21	20, 26	17, 26	20, 20	30, 20
D1	10	10		16, 25	16, 18	17, 22	24, 26	
D2	10	10		21, 24	18, 20	19, 22	17, 29	25, 25
D3	10	10		19, 22	17, 18	20, 23	19, 29	17, 30
D4	10	10		25, 20	23, 26	16, 25	18, 29	20, 29
D5	10	10		16, 17	21, 26	17, 24	23, 26	16, 30
D6	10	10		25, 18	18, 27	16, 24	19, 28	19, 30
D7	10	10		25, 16	18, 16	22, 17	26, 24	26, 26
D8	10	10		17, 18	19, 24	18, 19	16, 29	18, 30
D9	10	10		19, 18	18, 26	19, 24	23, 27	21, 28
D10	10	10		16, 21	16, 26	19, 20	20, 28	23, 28
Cycle 11								
E1	11	14			18, 25	18, 25	20, 26	17, 29
E2	11	14			17, 26	18, 23	20, 23	16, 29
E3	11	14			16, 25	18, 27	18, 26	21, 27
E4	11	14			20, 25	17, 17	17, 25	24, 26
E5	11	14			19, 26	16, 17	16, 27	23, 26
E6	11	14			18, 19	16, 27	16, 26	22, 27
E7	11	14			22, 25	17, 27	23, 23	18, 18
E8	11	14			23, 25	21, 21	17, 17	18, 20
E9	11	14			21, 24	17, 28	22, 25	17, 23

Table 3-9. Fuel Assembly Location in Core for QC2 Cycles 9-14 (cont.)

Fuel Assembly	Cycle First Inserted	Fuel Type	Cycle 9 Location (J,I)[1]	Cycle 10 Location (J,I)	Cycle 11 Location (I,J)	Cycle 12 Location (I,J)	Cycle 13 Location (I,J)	Cycle 14 Location (I,J)
E10	11	14			18, 23	20, 26	19, 26	19, 28
E11	11	14			25, 22	27, 17	24, 24	21, 21
E12	11	14			22, 23	22, 24	19, 24	18, 28
E13	11	14			25, 23	18, 18	21, 21	20, 18
E14	11	14			19, 22	19, 27	22, 26	20, 23
F1	11	12			17, 20	23, 26	23, 24	17,21
F2	11	12			16, 17	21, 25	19, 23	23, 27
F3	11	12			17, 24	20, 21	16, 18	18, 29
F4	11	12			25, 21	27, 20	18, 28	16, 16
F5	11	12			17, 22	18, 21	16, 24	19, 29
F6	11	12			18, 21	22, 23	16, 22	20, 28
F7	11	12			21, 25	20, 27	28, 18	17, 17
F8	11	12			20, 21	22, 26	16, 20	18, 22
F9	11	12			21, 22	17, 20	21, 23	24, 27
F10	11	12			16, 21	23, 25	19, 20	22, 23
Cycle 12								
G1	12	17				26, 21	20, 27	17, 26
G2	12	17				22, 20	17, 26	20, 20
G3	12	17				22, 25	17, 28	20, 24
G4	12	17				21, 23	21, 26	17, 19
G5	12	17				21, 26	27, 20	26, 17
G6	12	17				20, 22	26, 17	19, 19
G7	12	17				20, 25	23, 25	19, 21
G8	12	17				17, 21	18, 20	18, 24
G9	12	17				17, 23	16, 19	16, 18
G10	12	17				17, 25	18, 27	16, 19
G11	12	17				16, 18	24, 25	16, 27
H1	12	18				26, 16	27, 19	19, 24
H2	12	18				21, 24	22, 24	16, 24
H3	12	18				19, 21	21, 25	16, 20
H4	12	18				19, 25	20, 24	22, 25
H5	12	18				18, 20	18, 24	19, 26
H6	12	18				18, 22	18, 22	20, 22
H7	12	18				18, 24	16, 23	16, 26
H8	12	18				18, 26	16, 28	16, 22
H9	12	18				17, 19	21, 27	19, 23
H10	12	18				16, 22	20, 22	17, 25
H11	12	18				16, 26	19, 27	24, 19
Cycle 13								
J1	13	16					20, 25	20, 26
J2	13	16					19, 25	23, 24
J3	13	16					18, 25	19, 20
J4	13	16					22, 23	17, 28
J5	13	16					18, 23	16, 23
J6	13	16					21, 22	18, 26
J7	13	16					17, 22	24, 25
J8	13	16					20, 21	16, 28
J9	13	16					21, 18	16, 21
J10	13	16					18, 21	21, 16

Table 3-9. Fuel Assembly Location in Core for QC2 Cycles 9-14 (cont.)

Fuel Assembly	Cycle First Inserted	Fuel Type	Cycle 9 Location (J,I)[1]	Cycle 10 Location (J,I)	Cycle 11 Location (I,J)	Cycle 12 Location (I,J)	Cycle 13 Location (I,J)	Cycle 14 Location (I,J)
J11	13	16					16, 17	18, 27
J12	13	16					22, 19	22, 22
J13	13	16					19, 22	23, 23
J14	13	16					16, 25	21, 26
J15	13	16					21, 24	20, 27
J16	13	16					17, 18	23, 25
K1	13	15					17, 24	17, 27
K2	13	15					18, 19	22, 26
K3	13	15					16, 21	22, 24
K4	13	15					17, 20	19, 27
Cycle 14								
L1	14	1						19, 22
L2	14	1						21, 25
M1	14	2						16, 17
M2	14	2						16, 25
M3	14	2						17, 18
M4	14	2						17, 20
M5	14	2						17, 22
M6	14	2						17, 24
M7	14	2						18, 19
M8	14	2						18, 21
M9	14	2						18, 23
M10	14	2						18, 25
M11	14	2						19, 25
M12	14	2						20, 21
M13	14	2						20, 25
M14	14	2						21, 22
M15	14	2						21, 23
M16	14	2						21, 24

[1] "I" represents row and "J" represents column for Cycles 11 through 14; "J" represents row and "I" represents column for Cycles 9 and 10.

Table 3-10. Bladed Fuel Assemblies and Control Group for QC2 Cycles 9-14

Fuel Assembly	Cycle First Inserted	Fuel Type	Cycle 9	Cycle 10	Cycle 11	Cycle 12	Cycle 13	Cycle 14
Cycle 9								
A1	9	6			10B			
A2	9	6		10C				
A3	9	6		564R	10A			
A4	9	6			9C			
A5	9	6						
A6	9	6		444R				
A7	9	6		10C		9A		
A8	9	6			9E			
B1	9	7			10B			
B2	9	7			10C			

Table 3-10. Bladed Fuel Assemblies and Control Group for QC2 Cycles 9-14 (cont.)

Fuel Assembly	Cycle First Inserted	Fuel Type	Cycle 9	Cycle 10	Cycle 11	Cycle 12	Cycle 13	Cycle 14
B3	9	7		10B				
B4	9	7		9E				
B5	9	7			9C			
Cycle 10								
C1	10	9						
C2	10	9						
C3	10	9				10A		
C4	10	9			9D		9A	
C5	10	9				10B		9D
C6	10	9		444R		9C		
C7	10	9		564R		10A		
C8	10	9				9B		
C9	10	9		564R			9B	
C10	10	9			9D			
C11	10	9		562R		10B		
C12	10	9						
C13	10	9						
C14	10	9		564R			9B	512R
D1	10	10						
D2	10	10		562R				
D3	10	10				10B		
D4	10	10						
D5	10	10						
D6	10	10				9C	9E	
D7	10	10						
D8	10	10			10B			
D9	10	10				10B		
D10	10	10				9B	9E	
Cycle 11								
E1	11	14						
E2	11	14					10B	
E3	11	14						
E4	11	14						
E5	11	14						
E6	11	14						
E7	11	14					9D	
E8	11	14						442R
E9	11	14						
E10	11	14						9E
E11	11	14					9D	
E12	11	14					10B	
E13	11	14						442R
E14	11	14						10B
F1	11	12					9D	
F2	11	12					10B	
F3	11	12						
F4	11	12						9A
F5	11	12					9C	
F6	11	12						9E

Table 3-10. Bladed Fuel Assemblies and Control Group for QC2 Cycles 9-14 (cont.)

Fuel Assembly	Cycle First Inserted	Fuel Type	Cycle 9	Cycle 10	Cycle 11	Cycle 12	Cycle 13	Cycle 14
F7	11	12						
F8	11	12					10A	
F9	11	12						
F10	11	12					9B	
Cycle 12								
G1	12	17					9E	
G2	12	17						9B
G3	12	17						10B
G4	12	17						442R
G5	12	17					9E	
G6	12	17						9B
G7	12	17						
G8	12	17						
G9	12	17					10A	
G10	12	17						10A
G11	12	17						10C
H1	12	18					9E	10B
H2	12	18						9C
H3	12	18						10A
H4	12	18					10B	
H5	12	18						
H6	12	18						
H7	12	18					9C	
H8	12	18						
H9	12	18						10B
H10	12	18						
H11	12	18					9E	10B
Cycle 13								
J1	13	16						
J2	13	16						9D
J3	13	16						9B
J4	13	16						
J5	13	16						9C
J6	13	16						
J7	13	16						
J8	13	16						10C
J9	13	16						
J10	13	16						
J11	13	16						
J12	13	16						
J13	13	16						9D
J14	13	16						
J15	13	16						9E
J16	13	16						
K1	13	15						
K2	13	15						
K3	13	15						
K4	13	15						9E
Cycle 14								

Table 3-10. Bladed Fuel Assemblies and Control Group for QC2 Cycles 9-14 (cont.)

Fuel Assembly	Cycle First Inserted	Fuel Type	Cycle 9	Cycle 10	Cycle 11	Cycle 12	Cycle 13	Cycle 14
L1	14	1						
L2	14	1						
M1	14	2						
M2	14	2						
M3	14	2						
M4	14	2						442R
M5	14	2						
M6	14	2						
M7	14	2						442R
M8	14	2						
M9	14	2						
M10	14	2						
M11	14	2						
M12	14	2						
M13	14	2						
M14	14	2						
M15	14	2						
M16	14	2						

4. CORE OPERATION AND STATEPOINT INFORMATION

This section provides core operation data for the depletion calculations required to generate isotopic concentrations for statepoint reactivity evaluations. This data includes burnup and thermal hydraulic feedback parameters as well as CRB insertion history. The measured critical conditions for the statepoints evaluated are also contained in this section.

4.1 CORE FOLLOW DATA

The use of commercial reactor criticality data for model validation requires detailed knowledge of how the reactor was operated for the lifetime of every fuel assembly contributing to the criticality database. To adequately model the conditions for burnup calculations at each axial location, nodal core follow data for each fuel assembly in the reactor core is required. Core follow calculations based on core operation data are used to provide local conditions as a function of time to be used for all burnup calculations performed in support of the statepoint evaluations. Additionally, control blade insertion data is also provided.

The core follow calculations provide three-dimensional thermal-hydraulic (TH) feedback and burnup data. These data are presented at axial node locations. The nodal spacing for the axial nodes is presented in Table 4-1, where node 1 represents the bottom axial node in the reactor core. Tables 4-5 through 4-246 provide axial burnup profiles for each assembly at each datapoint or statepoint along with axial fuel temperature and moderator density (specific gravity) (sp. gr.). Editorial discrepancies (misspelled words, etc.) occur in Tables 4-5 through 4-247. Such discrepancies do not affect the correctness of the TH feedback parameters provided in the tables. Table 4-247 provides uranium mass for the collapsed node format. The statepoint evaluations for QC2 occur at the beginning of Cycle 13 (0 EFPD) and at three Cycle 13 restart points and at the beginning of Cycle 14 (0 EFPD) and one Cycle 14 restart point during that cycle. Some of the fuel assemblies present in Cycle 13 and Cycle 14 for the statepoint evaluations were initially inserted in the core in Cycles 9 through 13. The modeling of the fuel assemblies requires the operating history from the point where the fuel was first inserted into the core. These data are provided as datapoints and statepoints for Cycles 9 through 14.

Control blade insertion times (by axial node) for each assembly with a control blade inserted during core operation are provided in Tables 4-251 through 4-256.

Table 4-1. Axial Node Spacing for QC2 Burnup Calculations

Axial Node	Fuel Type A, B, C and D 10 Node Spacing (cm)	Fuel Type E to M 10 Node Spacing (cm)	Fuel Type A to M 24 Node Spacing (cm)
1 bottom	15.24	15.24	15.24
2	30.48	30.48	15.24
3	30.48	30.48	15.24
4	45.72	45.72	15.24
5	30.48	30.48	15.24
6	45.72	45.72	15.24
7	45.72	45.72	15.24
8	45.72	45.72	15.24
9	60.96	45.72	15.24
10[1]	15.24	30.48	15.24
11			15.24
12			15.24
13			15.24
14			15.24
15			15.24
16			15.24
17			15.24
18			15.24
19			15.24
20			15.24
21			15.24
22			15.24
23			15.24
24 top			15.24

[1] Top node for 10 node fuel assembly.

Table 4-2. Not Used
Table 4-3. Not Used
Table 4-4. Not Used

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Table 4-5. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A1

	Assembly Number A1								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.030	633.1	0.7396	2.184	636.0	0.7396
2	0.000		0.7396	3.715	863.8	0.7396	7.928	882.0	0.7396
3	0.000		0.7396	5.065	1005.5	0.7396	10.681	1020.5	0.7396
4	0.000		0.7047	5.646	989.9	0.7256	11.762	991.3	0.7232
5	0.000		0.6414	5.693	994.6	0.6754	11.838	994.0	0.6721
6	0.000	Data Not	0.5849	5.505	976.0	0.6235	11.513	981.4	0.6201
7	0.000	Required	0.5369	5.247	951.0	0.5751	11.072	964.8	0.5714
8	0.000		0.4976	5.018	929.4	0.5326	10.683	950.6	0.5283
9	0.000		0.4647	4.865	915.3	0.4958	10.424	941.2	0.4909
10	0.000		0.4366	4.808	910.1	0.4637	10.335	938.4	0.4583
11	0.000		0.4119	4.845	913.4	0.4351	10.410	941.8	0.4296
12	0.000		0.3897	4.924	920.7	0.4094	10.522	944.7	0.4036
13	0.000		0.3696	4.957	923.7	0.3862	10.568	945.8	0.3805
14	0.000		0.3518	4.929	921.1	0.3654	10.533	945.2	0.3598
15	0.000		0.3359	4.851	914.0	0.3471	10.429	942.9	0.3413
16	0.000		0.3219	4.738	903.7	0.3308	10.272	939.1	0.3248
17	0.000		0.3096	4.597	891.0	0.3164	10.068	933.6	0.3103
18	0.000		0.2988	4.428	876.1	0.3036	9.809	925.8	0.2973
19	0.000		0.2898	4.215	857.7	0.2925	9.469	915.0	0.2856
20	0.000		0.2820	3.930	833.7	0.2827	8.983	898.1	0.2752
21	0.000		0.2755	3.548	802.6	0.2743	8.238	868.5	0.2662
22	0.000		0.2702	2.996	759.8	0.2675	7.044	818.6	0.2586
23	0.000		0.2663	2.244	705.1	0.2621	5.319	748.5	0.2528
24	0.000		0.2641	0.859	613.9	0.2590	2.035	628.2	0.2494

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.528	631.7	0.7396	4.698	615.9	0.7396	5.218	592.9	0.7396
2	12.751	855.6	0.7396	16.630	765.1	0.7396	18.408	681.3	0.7396
3	16.919	964.8	0.7396	21.608	815.2	0.7396	23.973	726.0	0.7396
4	18.685	947.6	0.7254	23.688	792.4	0.7312	26.503	731.5	0.7333
5	19.062	969.4	0.6768	24.255	802.7	0.6876	27.493	760.6	0.6940
6	18.848	977.6	0.6260	24.227	812.9	0.6409	28.056	803.3	0.6525
7	18.401	977.2	0.5774	23.984	824.3	0.5957	28.918	889.8	0.6131
8	17.918	970.2	0.5338	23.706	835.9	0.5541	29.169	934.7	0.5729
9	17.501	958.7	0.4954	23.477	846.6	0.5165	29.053	944.5	0.5332
10	17.214	944.5	0.4621	23.347	855.7	0.4826	28.849	938.1	0.4961
11	17.066	928.7	0.4329	23.316	862.6	0.4516	28.652	923.7	0.4624
12	16.956	913.3	0.4071	23.293	867.7	0.4236	28.432	906.9	0.4326
13	16.803	899.7	0.3843	23.204	871.5	0.3984	28.130	889.1	0.4061
14	16.600	888.4	0.3641	23.050	874.4	0.3758	27.752	870.8	0.3827
15	16.369	879.9	0.3462	22.855	876.6	0.3557	27.313	851.4	0.3620
16	16.151	875.9	0.3306	22.673	878.8	0.3376	26.855	829.9	0.3435
17	15.931	874.9	0.3166	22.484	880.6	0.3215	26.380	808.3	0.3271
18	15.540	866.2	0.3038	22.055	878.3	0.3069	25.757	793.9	0.3126
19	14.980	852.0	0.2924	21.390	872.1	0.2936	25.102	794.6	0.3005
20	14.164	831.2	0.2821	20.359	859.4	0.2819	24.035	792.0	0.2896
21	12.927	801.1	0.2731	18.727	836.6	0.2717	22.196	777.0	0.2800
22	10.994	758.1	0.2656	16.090	797.4	0.2633	19.061	742.1	0.2716
23	8.253	702.6	0.2598	12.232	739.2	0.2569	14.533	697.6	0.2651
24	3.125	611.5	0.2563	4.641	624.9	0.2528	5.488	609.4	0.2607

Table 4-5. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A1

	Assembly Number A1								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.751	619.3	0.7396	7.088	586.8	0.7396	7.344	583.7	0.7396
2	23.136	761.0	0.7396	24.083	639.5	0.7396	24.788	628.7	0.7396
3	29.799	815.7	0.7396	30.902	653.6	0.7396	31.718	640.3	0.7396
4	32.937	802.4	0.7329	34.107	646.7	0.7337	34.968	634.5	0.7342
5	34.258	817.1	0.6971	35.485	651.1	0.6990	36.384	637.8	0.7003
6	35.060	827.9	0.6583	36.345	655.6	0.6616	37.285	641.4	0.6639
7	35.960	829.6	0.6202	37.306	660.3	0.6249	38.284	644.8	0.6282
8	36.335	835.3	0.5814	37.765	666.8	0.5877	38.800	649.9	0.5921
9	36.426	844.8	0.5432	37.955	674.6	0.5515	39.057	655.9	0.5570
10	36.437	854.8	0.5074	38.066	682.6	0.5174	39.238	662.3	0.5242
11	36.432	863.9	0.4745	38.151	689.8	0.4861	39.391	668.5	0.4942
12	36.380	871.9	0.4449	38.178	696.3	0.4577	39.484	674.6	0.4670
13	36.213	878.4	0.4185	38.075	701.5	0.4322	39.442	680.3	0.4424
14	35.929	883.0	0.3948	37.843	705.8	0.4092	39.262	685.1	0.4202
15	35.528	884.8	0.3736	37.479	708.8	0.3885	38.943	689.4	0.4000
16	35.027	882.7	0.3547	37.000	710.7	0.3697	38.499	692.7	0.3816
17	34.421	876.4	0.3376	36.397	710.9	0.3526	37.919	694.9	0.3648
18	33.601	867.0	0.3225	35.557	709.3	0.3374	37.084	695.4	0.3497
19	32.700	855.3	0.3098	34.599	704.5	0.3242	36.100	692.9	0.3363
20	31.476	848.0	0.2993	33.273	696.2	0.3129	34.712	687.0	0.3246
21	29.156	825.9	0.2897	30.808	684.4	0.3029	32.148	677.8	0.3144
22	25.026	782.0	0.2810	26.461	667.2	0.2941	27.641	663.0	0.3055
23	19.142	726.1	0.2742	20.243	641.5	0.2872	21.157	639.1	0.2985
24	7.267	621.4	0.2697	7.664	589.9	0.2820	7.994	589.1	0.2927

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.353	569.4	0.7396	7.474	572.7	0.7396	7.567	568.7	0.7396
2	24.814	589.2	0.7396	25.152	597.8	0.7396	25.407	585.8	0.7396
3	31.749	595.2	0.7396	32.142	604.3	0.7396	32.435	589.9	0.7396
4	35.002	595.7	0.7342	35.420	602.9	0.7345	35.730	589.8	0.7347
5	36.421	598.8	0.7004	36.858	604.8	0.7010	37.184	591.3	0.7015
6	37.325	601.8	0.6639	37.783	606.9	0.6651	38.127	592.9	0.6658
7	38.329	606.9	0.6283	38.810	609.2	0.6298	39.175	594.8	0.6310
8	38.849	611.0	0.5923	39.361	612.3	0.5943	39.753	597.3	0.5959
9	39.112	617.2	0.5573	39.660	616.0	0.5599	40.084	600.2	0.5619
10	39.299	623.4	0.5245	39.882	619.5	0.5278	40.339	603.3	0.5303
11	39.458	629.7	0.4946	40.075	623.0	0.4983	40.566	606.4	0.5013
12	39.556	634.9	0.4674	40.204	626.1	0.4715	40.730	609.6	0.4750
13	39.517	638.1	0.4429	40.193	629.0	0.4473	40.756	613.1	0.4513
14	39.340	641.3	0.4207	40.039	631.4	0.4252	40.642	616.8	0.4297
15	39.021	641.3	0.4005	39.739	633.4	0.4051	40.385	620.8	0.4101
16	38.578	642.4	0.3821	39.306	634.4	0.3867	39.993	624.7	0.3921
17	37.996	640.2	0.3653	38.729	634.9	0.3699	39.449	627.8	0.3756
18	37.160	639.2	0.3502	37.887	634.3	0.3547	38.632	630.2	0.3606
19	36.173	636.0	0.3367	36.882	632.4	0.3412	37.635	631.0	0.3471
20	34.780	630.7	0.3251	35.455	628.9	0.3293	36.193	629.5	0.3351
21	32.210	624.4	0.3148	32.833	623.6	0.3189	33.533	625.9	0.3246
22	27.695	616.1	0.3059	28.235	615.1	0.3099	28.857	618.6	0.3157
23	21.198	602.8	0.2989	21.613	602.6	0.3028	22.095	605.6	0.3085
24	8.008	575.6	0.2931	8.154	576.0	0.2967	8.320	576.7	0.3019

Table 4-5. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A1

	Assembly Number A1					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.639	567.4	0.7396	7.676	565.9	0.7396
2	25.602	581.7	0.7396	25.702	577.7	0.7396
3	32.658	585.0	0.7396	32.771	580.2	0.7396
4	35.965	585.3	0.7348	36.082	580.6	0.7349
5	37.431	586.6	0.7018	37.551	581.1	0.7021
6	38.388	588.0	0.6665	38.516	582.4	0.6668
7	39.452	589.6	0.6318	39.588	583.7	0.6322
8	40.054	592.0	0.5971	40.201	585.5	0.5976
9	40.410	594.6	0.5635	40.573	588.1	0.5643
10	40.694	597.5	0.5322	40.873	590.7	0.5332
11	40.950	600.5	0.5036	41.146	593.5	0.5048
12	41.144	603.5	0.4778	41.359	596.6	0.4792
13	41.201	606.7	0.4544	41.435	599.7	0.4561
14	41.120	610.1	0.4333	41.374	603.0	0.4353
15	40.893	613.2	0.4141	41.170	606.8	0.4164
16	40.531	616.3	0.3966	40.830	610.4	0.3992
17	40.015	619.2	0.3803	40.337	614.3	0.3832
18	39.221	621.6	0.3656	39.564	617.8	0.3687
19	38.237	623.0	0.3522	38.595	620.3	0.3555
20	36.793	622.8	0.3403	37.159	621.6	0.3437
21	34.113	620.7	0.3298	34.474	620.8	0.3334
22	29.382	615.0	0.3210	29.716	616.3	0.3247
23	22.508	603.4	0.3138	22.773	604.8	0.3175
24	8.463	576.0	0.3067	8.554	576.4	0.3101

Table 4-6. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A2

	Assembly Number A2								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.851	619.7	0.7396	1.972	633.7	0.7396
2	0.000		0.7396	3.098	805.3	0.7396	7.302	881.1	0.7396
3	0.000		0.7396	4.489	942.7	0.7396	10.466	1059.2	0.7396
4	0.000		0.7396	5.442	1048.8	0.7341	12.169	1049.5	0.7222
5	0.000		0.6950	6.011	1027.0	0.6857	12.821	1057.7	0.6683
6	0.000	Data Not	0.6373	6.313	1058.8	0.6278	12.973	1042.9	0.6106
7	0.000	Required	0.5815	6.297	1057.1	0.5717	12.804	1028.1	0.5563
8	0.000		0.5320	6.103	1036.6	0.5216	12.532	1020.6	0.5082
9	0.000		0.4902	5.840	1009.5	0.4792	12.227	1016.7	0.4672
10	0.000		0.4554	5.568	982.2	0.4439	11.886	1010.1	0.4323
11	0.000		0.4263	5.315	957.5	0.4143	11.546	1002.0	0.4029
12	0.000		0.4017	5.087	935.8	0.3894	11.222	993.0	0.3778
13	0.000		0.3807	4.886	917.2	0.3681	10.919	983.7	0.3562
14	0.000		0.3625	4.709	901.1	0.3496	10.640	974.4	0.3374
15	0.000		0.3469	4.555	887.3	0.3335	10.385	965.2	0.3210
16	0.000		0.3331	4.423	875.7	0.3194	10.150	956.0	0.3065
17	0.000		0.3210	4.308	865.7	0.3068	9.925	946.3	0.2936
18	0.000		0.3104	4.194	855.9	0.2954	9.680	934.9	0.2820
19	0.000		0.3011	4.039	842.8	0.2853	9.342	919.2	0.2717
20	0.000		0.2931	3.780	821.3	0.2763	8.782	893.9	0.2624
21	0.000		0.2863	3.364	788.0	0.2685	7.858	852.9	0.2545
22	0.000		0.2808	2.755	741.8	0.2622	6.460	793.1	0.2480
23	0.000		0.2766	2.017	689.3	0.2575	4.721	723.4	0.2431
24	0.000		0.2741	0.761	607.8	0.2547	1.784	619.3	0.2401

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	2.873	607.0	0.7396	3.598	593.8	0.7396	4.967	651.5	0.7396
2	10.640	753.0	0.7396	13.114	684.4	0.7396	17.767	925.1	0.7396
3	14.634	808.9	0.7396	17.557	709.4	0.7396	23.464	1054.0	0.7396
4	16.699	791.7	0.7295	19.780	695.4	0.7345	26.292	1030.9	0.7226
5	17.549	803.5	0.6831	20.761	701.7	0.6929	27.540	1057.1	0.6779
6	17.844	812.1	0.6325	21.242	710.6	0.6480	28.113	1066.3	0.6298
7	17.795	819.5	0.5848	21.438	722.5	0.6064	28.319	1067.3	0.5849
8	17.602	824.3	0.5423	21.521	736.2	0.5697	28.366	1063.7	0.5455
9	17.339	826.9	0.5055	21.535	750.2	0.5377	28.287	1054.4	0.5119
10	17.010	827.7	0.4738	21.465	763.5	0.5096	28.060	1039.0	0.4828
11	16.630	825.2	0.4458	21.312	775.3	0.4836	27.699	1018.9	0.4567
12	16.235	820.8	0.4211	21.105	785.3	0.4594	27.246	995.7	0.4331
13	15.854	816.0	0.3994	20.872	793.2	0.4370	26.749	971.4	0.4118
14	15.511	812.1	0.3807	20.643	799.4	0.4164	26.229	945.4	0.3927
15	15.252	811.9	0.3650	20.482	804.7	0.3983	25.744	917.3	0.3762
16	15.221	824.4	0.3542	20.602	813.0	0.3846	25.493	886.2	0.3641
17	15.385	848.8	0.3465	20.977	824.8	0.3734	25.470	854.1	0.3546
18	15.164	850.3	0.3334	20.805	827.5	0.3575	24.964	828.1	0.3408
19	14.668	840.3	0.3200	20.278	825.8	0.3415	24.136	805.4	0.3267
20	13.828	822.8	0.3079	19.321	819.3	0.3273	22.873	783.0	0.3141
21	12.471	796.6	0.2979	17.705	805.0	0.3157	20.876	755.9	0.3036
22	10.382	756.5	0.2900	15.076	776.0	0.3069	17.753	722.3	0.2955
23	7.618	700.6	0.2836	11.315	725.2	0.3000	13.420	685.1	0.2885
24	2.821	609.0	0.2781	4.170	617.8	0.2933	4.971	606.8	0.2822

Table 4-6. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A2

	Assembly Number A2								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.918	636.5	0.7396	7.366	596.1	0.7396	7.709	592.2	0.7396
2	23.695	820.9	0.7396	24.964	668.8	0.7396	25.917	654.7	0.7396
3	30.585	884.5	0.7396	32.080	690.0	0.7396	33.196	672.3	0.7396
4	33.838	852.9	0.7195	35.434	680.0	0.7210	36.625	664.0	0.7221
5	35.259	861.0	0.6767	36.937	686.5	0.6801	38.187	669.4	0.6825
6	35.972	867.7	0.6307	37.735	693.4	0.6362	39.049	675.3	0.6400
7	36.364	876.6	0.5875	38.223	701.2	0.5951	39.605	681.7	0.6005
8	36.655	888.5	0.5493	38.613	709.4	0.5587	40.068	688.5	0.5654
9	36.846	901.8	0.5161	38.902	717.6	0.5269	40.432	695.7	0.5349
10	36.897	915.7	0.4868	39.042	725.1	0.4987	40.642	702.4	0.5075
11	36.805	929.4	0.4603	39.026	731.6	0.4728	40.691	708.6	0.4823
12	36.597	942.1	0.4360	38.883	737.2	0.4489	40.608	714.5	0.4591
13	36.315	953.3	0.4137	38.655	741.8	0.4269	40.436	720.0	0.4374
14	35.950	961.6	0.3936	38.327	745.1	0.4067	40.156	724.7	0.4174
15	35.533	965.2	0.3759	37.929	746.7	0.3887	39.794	728.3	0.3994
16	35.220	961.9	0.3618	37.609	746.1	0.3739	39.489	729.8	0.3844
17	35.004	951.6	0.3502	37.358	743.1	0.3616	39.231	729.1	0.3715
18	34.270	939.7	0.3358	36.575	738.8	0.3468	38.427	727.0	0.3565
19	33.127	923.5	0.3216	35.352	731.9	0.3324	37.156	722.3	0.3419
20	31.395	899.9	0.3088	33.496	721.4	0.3193	35.217	714.1	0.3286
21	28.654	863.8	0.2981	30.572	706.1	0.3083	32.157	700.9	0.3174
22	24.408	812.2	0.2896	26.041	682.9	0.2995	27.403	679.8	0.3085
23	18.615	749.8	0.2822	19.841	651.0	0.2919	20.872	649.5	0.3007
24	7.014	630.6	0.2762	7.461	593.5	0.2856	7.838	593.1	0.2941

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.717	568.2	0.7396	7.819	570.6	0.7396	7.900	567.5	0.7396
2	25.939	584.5	0.7396	26.217	590.8	0.7396	26.434	581.8	0.7396
3	33.223	590.4	0.7396	33.543	595.7	0.7396	33.792	585.2	0.7396
4	36.654	590.7	0.7221	36.993	595.0	0.7224	37.254	585.3	0.7227
5	38.219	593.7	0.6826	38.572	596.4	0.6832	38.846	586.5	0.6837
6	39.083	595.7	0.6402	39.453	598.1	0.6412	39.742	587.9	0.6421
7	39.643	599.8	0.6006	40.035	600.3	0.6021	40.344	589.7	0.6033
8	40.110	603.9	0.5657	40.527	602.8	0.5676	40.861	592.0	0.5691
9	40.478	607.9	0.5351	40.925	605.8	0.5374	41.285	594.4	0.5393
10	40.693	613.1	0.5078	41.170	608.8	0.5106	41.558	596.9	0.5129
11	40.747	618.2	0.4828	41.254	611.8	0.4860	41.672	599.7	0.4886
12	40.667	621.3	0.4595	41.205	614.9	0.4631	41.653	602.4	0.4662
13	40.498	624.4	0.4378	41.064	617.8	0.4419	41.545	605.5	0.4454
14	40.220	626.5	0.4179	40.809	620.1	0.4222	41.325	608.7	0.4262
15	39.860	628.6	0.3999	40.467	622.0	0.4044	41.017	611.9	0.4089
16	39.555	628.6	0.3849	40.173	623.1	0.3895	40.756	614.9	0.3942
17	39.296	627.6	0.3720	39.918	623.5	0.3765	40.526	617.3	0.3815
18	38.490	625.5	0.3570	39.111	623.4	0.3614	39.739	619.1	0.3667
19	37.218	624.4	0.3423	37.828	622.3	0.3467	38.466	620.1	0.3522
20	35.275	620.3	0.3290	35.862	619.9	0.3334	36.496	619.7	0.3391
21	32.212	617.2	0.3178	32.760	616.0	0.3222	33.368	617.3	0.3280
22	27.451	610.0	0.3089	27.932	609.2	0.3133	28.475	611.2	0.3192
23	20.908	597.8	0.3011	21.278	598.1	0.3055	21.701	600.1	0.3114
24	7.851	574.6	0.2945	7.980	574.3	0.2986	8.126	574.9	0.3040

Table 4-6. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A2

	Assembly Number A2					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.960	566.0	0.7396	7.990	564.6	0.7396
2	26.595	577.7	0.7396	26.674	573.8	0.7396
3	33.974	580.2	0.7396	34.063	575.7	0.7396
4	37.445	580.9	0.7228	37.538	576.7	0.7229
5	39.045	581.7	0.6841	39.140	577.0	0.6843
6	39.953	582.9	0.6426	40.054	578.0	0.6429
7	40.571	584.5	0.6041	40.679	579.2	0.6045
8	41.106	586.4	0.5702	41.225	581.0	0.5707
9	41.551	588.5	0.5407	41.682	582.9	0.5413
10	41.847	590.8	0.5145	41.992	585.2	0.5153
11	41.986	593.3	0.4906	42.145	587.5	0.4916
12	41.993	596.0	0.4685	42.168	590.1	0.4697
13	41.913	598.8	0.4481	42.105	592.8	0.4495
14	41.721	601.7	0.4293	41.931	595.8	0.4309
15	41.442	604.7	0.4123	41.671	598.9	0.4142
16	41.208	607.4	0.3981	41.457	602.2	0.4002
17	41.002	609.9	0.3857	41.271	605.5	0.3880
18	40.237	612.2	0.3712	40.525	608.6	0.3738
19	38.981	613.9	0.3570	39.286	611.4	0.3599
20	37.017	614.5	0.3440	37.334	613.4	0.3473
21	33.878	613.4	0.3333	34.195	613.4	0.3367
22	28.940	608.8	0.3246	29.234	609.6	0.3284
23	22.068	598.7	0.3169	22.303	599.9	0.3208
24	8.252	574.3	0.3091	8.333	574.8	0.3126

Table 4-7. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A3

	Assembly Number A3								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.035	633.5	0.7396	2.238	639.4	0.7396
2	0.000		0.7396	3.761	868.3	0.7396	8.182	901.3	0.7396
3	0.000		0.7396	5.277	1029.7	0.7396	11.184	1051.6	0.7396
4	0.000		0.7206	6.098	1036.1	0.7171	12.510	1019.0	0.7135
5	0.000		0.6595	6.389	1067.0	0.6599	12.828	1021.6	0.6567
6	0.000	Data Not	0.6009	6.397	1067.9	0.6008	12.735	1012.0	0.5994
7	0.000	Required	0.5472	6.213	1048.2	0.5465	12.465	1003.9	0.5471
8	0.000		0.5020	5.946	1020.3	0.5000	12.148	999.3	0.5016
9	0.000		0.4646	5.668	992.1	0.4613	11.835	996.0	0.4626
10	0.000		0.4335	5.416	967.3	0.4289	11.542	992.2	0.4297
11	0.000		0.4073	5.203	946.8	0.4017	11.294	989.0	0.4014
12	0.000		0.3850	5.022	929.8	0.3784	11.095	987.3	0.3770
13	0.000		0.3656	4.858	914.6	0.3583	10.933	987.5	0.3557
14	0.000		0.3488	4.702	900.5	0.3409	10.747	984.8	0.3369
15	0.000		0.3342	4.547	886.6	0.3257	10.564	982.2	0.3203
16	0.000		0.3212	4.389	872.7	0.3121	10.385	980.3	0.3056
17	0.000		0.3099	4.226	858.6	0.3002	10.162	974.8	0.2923
18	0.000		0.2998	4.053	844.0	0.2897	9.908	967.5	0.2804
19	0.000		0.2913	3.860	827.9	0.2804	9.549	952.7	0.2697
20	0.000		0.2841	3.659	811.5	0.2724	9.040	925.8	0.2604
21	0.000		0.2779	3.397	790.6	0.2653	8.269	883.2	0.2524
22	0.000		0.2729	2.875	750.7	0.2590	6.950	820.6	0.2455
23	0.000		0.2692	2.158	699.1	0.2540	5.198	746.1	0.2400
24	0.000		0.2670	0.818	611.3	0.2511	1.972	626.9	0.2367

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.164	608.4	0.7396	4.344	616.4	0.7396	5.039	604.7	0.7396
2	11.540	754.3	0.7396	15.560	773.6	0.7396	17.944	727.5	0.7396
3	15.609	826.9	0.7396	20.590	833.9	0.7396	23.672	783.9	0.7396
4	17.617	826.6	0.7264	22.972	811.6	0.7326	26.516	782.4	0.7340
5	18.413	856.8	0.6817	23.847	816.0	0.6920	27.984	826.5	0.6966
6	18.643	877.8	0.6335	24.052	814.6	0.6464	29.334	919.0	0.6541
7	18.580	891.6	0.5863	23.958	812.9	0.6010	29.758	964.5	0.6088
8	18.388	900.0	0.5433	23.768	813.0	0.5590	29.683	974.9	0.5649
9	18.114	902.7	0.5045	23.547	815.9	0.5207	29.434	972.4	0.5245
10	17.792	900.7	0.4701	23.321	821.3	0.4866	29.096	962.2	0.4885
11	17.440	893.7	0.4398	23.069	826.9	0.4560	28.670	946.7	0.4567
12	17.091	883.7	0.4131	22.812	832.1	0.4283	28.214	929.4	0.4285
13	16.763	872.7	0.3894	22.566	836.7	0.4037	27.738	909.7	0.4034
14	16.419	862.4	0.3687	22.293	840.8	0.3815	27.214	888.7	0.3812
15	16.090	853.0	0.3504	22.016	843.8	0.3617	26.665	866.6	0.3615
16	15.783	844.8	0.3343	21.729	844.9	0.3438	26.089	843.7	0.3438
17	15.443	837.5	0.3198	21.376	844.2	0.3277	25.445	821.3	0.3280
18	15.062	829.5	0.3069	20.939	841.0	0.3130	24.731	800.5	0.3137
19	14.527	818.7	0.2953	20.292	834.6	0.3000	23.821	781.3	0.3009
20	13.749	802.3	0.2852	19.307	822.9	0.2884	22.556	761.4	0.2896
21	12.557	777.5	0.2764	17.744	802.4	0.2783	20.650	737.7	0.2799
22	10.579	740.1	0.2690	15.125	768.2	0.2702	17.594	708.5	0.2720
23	7.887	689.8	0.2629	11.410	716.7	0.2638	13.381	676.7	0.2663
24	2.960	606.8	0.2591	4.282	616.7	0.2594	5.029	603.7	0.2621

Table 4-7. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A3

	Assembly Number A3								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.570	619.2	0.7396	6.899	586.1	0.7396	7.144	582.6	0.7396
2	22.602	757.7	0.7396	23.546	639.3	0.7396	24.238	627.4	0.7396
3	29.330	807.1	0.7396	30.434	653.7	0.7396	31.243	639.5	0.7396
4	32.689	791.0	0.7339	33.852	646.2	0.7346	34.707	633.9	0.7351
5	34.357	799.7	0.6995	35.559	649.2	0.7013	36.447	636.8	0.7025
6	35.754	801.8	0.6598	36.992	651.9	0.6628	37.906	639.1	0.6650
7	36.368	810.2	0.6175	37.668	656.7	0.6220	38.627	643.1	0.6253
8	36.598	823.8	0.5763	37.982	663.2	0.5826	38.998	648.2	0.5870
9	36.701	839.9	0.5380	38.181	670.8	0.5462	39.263	654.1	0.5517
10	36.718	856.4	0.5035	38.295	678.4	0.5133	39.445	660.3	0.5202
11	36.626	872.3	0.4723	38.293	685.6	0.4837	39.513	666.7	0.4917
12	36.480	887.3	0.4440	38.230	692.3	0.4567	39.519	673.0	0.4659
13	36.266	900.2	0.4185	38.089	698.3	0.4322	39.442	679.0	0.4423
14	35.947	910.5	0.3956	37.830	703.2	0.4100	39.243	684.6	0.4210
15	35.528	917.0	0.3748	37.459	707.2	0.3898	38.922	689.3	0.4013
16	34.996	919.2	0.3561	36.957	709.7	0.3713	38.461	693.2	0.3833
17	34.304	916.8	0.3391	36.276	710.6	0.3544	37.807	695.7	0.3667
18	33.446	909.6	0.3237	35.406	709.6	0.3388	36.946	696.6	0.3514
19	32.276	896.6	0.3099	34.197	706.4	0.3249	35.724	695.4	0.3374
20	30.593	876.2	0.2976	32.439	700.2	0.3124	33.922	691.2	0.3249
21	28.046	845.9	0.2872	29.755	689.0	0.3016	31.145	682.4	0.3140
22	23.972	799.9	0.2787	25.448	670.4	0.2929	26.661	666.0	0.3053
23	18.377	741.6	0.2725	19.492	642.6	0.2863	20.417	640.1	0.2983
24	6.997	628.0	0.2682	7.391	589.7	0.2809	7.717	588.8	0.2920

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.156	572.9	0.7396	7.292	574.4	0.7396	7.406	570.9	0.7396
2	24.270	596.4	0.7396	24.646	602.3	0.7396	24.957	591.8	0.7396
3	31.282	604.7	0.7396	31.716	609.1	0.7396	32.070	596.4	0.7396
4	34.751	605.9	0.7351	35.206	606.6	0.7354	35.574	595.1	0.7356
5	36.496	611.0	0.7026	36.965	608.0	0.7033	37.345	596.2	0.7038
6	37.958	614.1	0.6651	38.441	609.4	0.6663	38.835	597.5	0.6671
7	38.683	618.2	0.6254	39.189	611.7	0.6271	39.609	599.9	0.6284
8	39.058	622.4	0.5872	39.596	614.9	0.5894	40.048	602.8	0.5912
9	39.327	626.5	0.5520	39.900	618.5	0.5548	40.388	606.1	0.5572
10	39.513	630.7	0.5205	40.122	622.2	0.5239	40.648	609.6	0.5268
11	39.583	632.8	0.4921	40.226	625.6	0.4959	40.790	613.2	0.4994
12	39.592	636.0	0.4663	40.266	628.8	0.4704	40.868	616.7	0.4744
13	39.516	637.0	0.4428	40.216	631.5	0.4471	40.852	619.9	0.4515
14	39.318	638.1	0.4214	40.037	633.5	0.4258	40.704	622.8	0.4305
15	38.998	639.2	0.4018	39.731	634.9	0.4063	40.426	625.5	0.4113
16	38.536	638.1	0.3838	39.278	635.8	0.3882	39.998	627.8	0.3933
17	37.882	638.1	0.3671	38.627	636.2	0.3715	39.366	629.6	0.3768
18	37.019	636.0	0.3518	37.759	635.6	0.3561	38.511	630.9	0.3615
19	35.795	633.9	0.3378	36.520	634.1	0.3420	37.273	631.0	0.3474
20	33.989	629.7	0.3253	34.684	631.0	0.3294	35.423	629.6	0.3348
21	31.207	624.4	0.3144	31.855	626.1	0.3186	32.556	626.0	0.3239
22	26.716	617.2	0.3057	27.284	618.0	0.3098	27.907	618.7	0.3151
23	20.458	602.8	0.2987	20.897	605.0	0.3028	21.382	605.8	0.3081
24	7.732	576.7	0.2924	7.890	577.2	0.2963	8.063	577.3	0.3013

Table 4-7. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A3

	Assembly Number A3					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.484	568.1	0.7396	7.522	566.1	0.7396
2	25.169	583.7	0.7396	25.269	577.7	0.7396
3	32.308	586.8	0.7396	32.421	580.2	0.7396
4	35.820	586.5	0.7357	35.935	580.3	0.7358
5	37.598	587.2	0.7042	37.716	580.8	0.7043
6	39.097	588.1	0.6677	39.220	581.6	0.6680
7	39.889	589.9	0.6293	40.020	582.9	0.6297
8	40.351	592.2	0.5924	40.496	585.2	0.5930
9	40.719	595.1	0.5588	40.880	587.8	0.5595
10	41.009	598.1	0.5287	41.187	590.5	0.5297
11	41.183	601.4	0.5017	41.381	593.8	0.5029
12	41.294	604.8	0.4772	41.513	597.2	0.4787
13	41.313	608.3	0.4548	41.555	601.0	0.4565
14	41.200	612.0	0.4343	41.466	605.0	0.4363
15	40.956	615.5	0.4154	41.247	609.1	0.4178
16	40.561	618.9	0.3979	40.879	613.6	0.4006
17	39.960	622.1	0.3817	40.306	618.3	0.3848
18	39.132	625.0	0.3666	39.501	622.1	0.3699
19	37.912	626.9	0.3528	38.301	625.5	0.3563
20	36.066	627.3	0.3402	36.467	627.5	0.3440
21	33.180	625.3	0.3295	33.578	627.0	0.3334
22	28.474	619.3	0.3208	28.842	622.0	0.3249
23	21.829	606.9	0.3137	22.121	609.3	0.3178
24	8.221	577.6	0.3066	8.324	578.3	0.3103

Table 4-8. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A4

	Assembly Number A4								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.151	642.3	0.7396	2.433	645.0	0.7396
2	0.000		0.7396	4.188	911.2	0.7396	8.894	928.5	0.7396
3	0.000		0.7396	5.858	1098.5	0.7396	12.059	1084.0	0.7396
4	0.000		0.7032	6.701	1101.2	0.6995	13.379	1044.7	0.6998
5	0.000		0.6348	6.981	1133.0	0.6339	13.667	1045.5	0.6369
6	0.000	Data Not	0.5701	7.007	1136.0	0.5698	13.580	1034.5	0.5763
7	0.000	Required	0.5144	6.796	1111.9	0.5135	13.286	1026.5	0.5227
8	0.000		0.4689	6.499	1078.9	0.4668	12.971	1024.8	0.4773
9	0.000		0.4321	6.190	1045.7	0.4287	12.669	1025.4	0.4391
10	0.000		0.4019	5.904	1016.0	0.3975	12.360	1023.2	0.4069
11	0.000		0.3769	5.656	990.9	0.3716	12.076	1019.8	0.3795
12	0.000		0.3557	5.441	969.7	0.3496	11.817	1015.6	0.3561
13	0.000		0.3374	5.249	951.2	0.3308	11.577	1011.1	0.3358
14	0.000		0.3218	5.073	934.5	0.3146	11.343	1005.6	0.3182
15	0.000		0.3081	4.905	918.9	0.3003	11.110	999.5	0.3025
16	0.000		0.2961	4.742	904.1	0.2878	10.869	992.3	0.2888
17	0.000		0.2860	4.575	889.1	0.2768	10.604	983.3	0.2765
18	0.000		0.2771	4.392	873.0	0.2669	10.287	971.1	0.2654
19	0.000		0.2693	4.171	854.0	0.2582	9.866	953.2	0.2556
20	0.000		0.2624	3.875	829.1	0.2504	9.248	925.1	0.2468
21	0.000		0.2566	3.451	794.9	0.2437	8.294	880.8	0.2392
22	0.000		0.2519	2.842	748.2	0.2382	6.865	816.7	0.2327
23	0.000		0.2484	2.100	695.0	0.2338	5.069	741.2	0.2277
24	0.000		0.2463	0.789	609.5	0.2314	1.907	624.8	0.2248

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.111	594.9	0.7396	4.013	602.6	0.7396	4.581	596.1	0.7396
2	11.371	698.5	0.7396	14.436	717.4	0.7396	16.422	696.8	0.7396
3	15.267	744.5	0.7396	18.987	755.6	0.7396	21.642	748.9	0.7396
4	17.049	742.4	0.7136	21.016	738.6	0.7219	24.167	754.5	0.7253
5	17.732	764.6	0.6651	21.821	744.7	0.6798	25.434	787.4	0.6875
6	18.013	785.9	0.6192	22.177	748.5	0.6391	26.431	835.5	0.6503
7	18.048	805.5	0.5776	22.292	752.6	0.6014	27.250	891.8	0.6137
8	18.013	822.6	0.5398	22.352	757.5	0.5661	27.558	912.6	0.5768
9	17.976	839.1	0.5058	22.453	764.6	0.5334	27.675	913.9	0.5418
10	17.920	855.2	0.4752	22.580	774.2	0.5033	27.776	911.7	0.5098
11	17.680	858.0	0.4458	22.489	782.0	0.4741	27.545	899.9	0.4792
12	17.350	853.4	0.4188	22.298	789.5	0.4470	27.160	883.9	0.4511
13	16.990	845.8	0.3947	22.068	796.5	0.4223	26.722	867.0	0.4260
14	16.628	837.7	0.3734	21.840	803.8	0.4002	26.275	849.6	0.4035
15	16.284	830.8	0.3549	21.628	811.0	0.3804	25.842	832.4	0.3836
16	15.971	826.3	0.3386	21.391	815.2	0.3623	25.465	821.7	0.3658
17	15.715	826.9	0.3247	21.159	816.5	0.3459	25.360	831.4	0.3506
18	15.472	831.5	0.3127	20.900	815.6	0.3312	25.019	825.1	0.3360
19	15.002	828.4	0.3015	20.392	813.5	0.3178	24.438	819.5	0.3227
20	14.176	815.6	0.2910	19.441	806.7	0.3057	23.397	812.8	0.3109
21	12.832	792.1	0.2820	17.835	792.4	0.2957	21.461	788.4	0.3005
22	10.740	753.8	0.2747	15.217	764.6	0.2878	18.304	750.1	0.2923
23	7.929	698.7	0.2685	11.441	716.1	0.2813	13.871	706.0	0.2858
24	2.932	608.5	0.2637	4.223	615.3	0.2758	5.116	612.1	0.2802

Table 4-8. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A4

	Assembly Number A4								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	5.952	612.7	0.7396	6.483	603.2	0.7396	6.893	598.8	0.7396
2	20.791	743.9	0.7396	22.371	698.2	0.7396	23.556	679.8	0.7396
3	27.080	796.0	0.7396	28.974	728.8	0.7396	30.384	704.9	0.7396
4	30.166	783.5	0.7276	32.199	715.7	0.7291	33.709	693.7	0.7302
5	31.816	800.1	0.6933	33.927	722.2	0.6966	35.498	699.6	0.6990
6	33.257	819.8	0.6578	35.411	725.9	0.6628	37.020	703.2	0.6664
7	34.493	838.8	0.6214	36.688	729.4	0.6276	38.333	706.7	0.6325
8	35.034	849.6	0.5844	37.307	736.1	0.5919	39.013	712.6	0.5979
9	35.338	858.4	0.5496	37.698	743.6	0.5581	39.471	719.2	0.5650
10	35.630	867.4	0.5176	38.060	749.7	0.5268	39.892	725.0	0.5344
11	35.574	875.8	0.4874	38.067	755.2	0.4971	39.956	730.7	0.5052
12	35.346	883.4	0.4596	37.892	759.9	0.4695	39.835	736.1	0.4781
13	35.038	889.8	0.4344	37.625	763.6	0.4444	39.615	740.9	0.4533
14	34.693	894.8	0.4119	37.303	765.7	0.4218	39.331	744.8	0.4307
15	34.359	899.7	0.3918	36.973	766.0	0.4015	39.023	747.0	0.4102
16	33.933	897.3	0.3733	36.535	764.9	0.3828	38.595	748.0	0.3914
17	33.656	888.8	0.3572	36.211	760.7	0.3662	38.252	746.1	0.3746
18	33.273	886.7	0.3424	35.751	753.9	0.3510	37.749	741.7	0.3590
19	32.673	885.8	0.3292	35.033	743.6	0.3373	36.954	733.9	0.3448
20	31.283	869.0	0.3167	33.491	730.5	0.3244	35.304	723.2	0.3317
21	28.762	841.5	0.3059	30.758	712.6	0.3134	32.412	707.6	0.3205
22	24.601	796.4	0.2971	26.284	686.9	0.3044	27.692	684.1	0.3113
23	18.761	737.4	0.2900	20.023	653.8	0.2971	21.084	652.2	0.3040
24	7.001	625.1	0.2846	7.466	594.8	0.2917	7.859	594.4	0.2984

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	6.913	582.2	0.7396	7.113	581.8	0.7396	7.273	575.8	0.7396
2	23.614	628.0	0.7396	24.178	624.7	0.7396	24.622	606.2	0.7396
3	30.454	643.0	0.7396	31.115	636.6	0.7396	31.628	613.8	0.7396
4	33.785	639.2	0.7302	34.483	631.3	0.7307	35.022	610.8	0.7311
5	35.578	643.4	0.6992	36.294	633.2	0.7002	36.851	612.5	0.7010
6	37.102	645.6	0.6665	37.829	634.3	0.6681	38.404	614.2	0.6694
7	38.417	647.7	0.6327	39.159	635.8	0.6347	39.759	616.5	0.6364
8	39.099	649.9	0.5981	39.869	638.8	0.6005	40.509	620.3	0.6029
9	39.560	653.1	0.5652	40.364	642.3	0.5680	41.050	624.6	0.5709
10	39.984	656.4	0.5347	40.821	645.8	0.5376	41.552	628.9	0.5410
11	40.050	658.5	0.5055	40.919	649.2	0.5087	41.693	633.0	0.5125
12	39.930	659.6	0.4784	40.828	652.2	0.4817	41.643	636.9	0.4859
13	39.711	660.7	0.4536	40.633	654.8	0.4569	41.484	640.3	0.4612
14	39.427	660.7	0.4309	40.365	656.5	0.4343	41.247	643.3	0.4388
15	39.119	660.7	0.4105	40.065	657.3	0.4137	40.971	645.7	0.4182
16	38.689	658.5	0.3916	39.637	657.6	0.3948	40.563	647.6	0.3993
17	38.344	656.4	0.3748	39.281	656.4	0.3778	40.214	648.3	0.3822
18	37.838	653.1	0.3592	38.753	654.0	0.3621	39.683	648.0	0.3664
19	37.038	647.7	0.3451	37.915	650.0	0.3478	38.826	646.2	0.3520
20	35.382	641.3	0.3320	36.209	644.7	0.3347	37.083	642.6	0.3387
21	32.483	633.9	0.3207	33.237	637.1	0.3233	34.051	636.8	0.3272
22	27.754	624.4	0.3115	28.403	626.2	0.3142	29.114	627.0	0.3180
23	21.131	609.0	0.3042	21.630	611.0	0.3068	22.179	611.8	0.3106
24	7.876	578.7	0.2986	8.063	580.0	0.3012	8.266	580.1	0.3050

Table 4-8. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A4

	Assembly Number A4					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.381	571.6	0.7396	7.434	568.9	0.7396
2	24.920	594.0	0.7396	25.063	585.9	0.7396
3	31.968	599.0	0.7396	32.130	589.5	0.7396
4	35.377	597.5	0.7313	35.545	588.9	0.7314
5	37.216	598.5	0.7015	37.388	589.6	0.7018
6	38.781	599.7	0.6702	38.958	590.4	0.6706
7	40.154	601.6	0.6375	40.341	592.0	0.6381
8	40.933	604.5	0.6044	41.138	595.0	0.6051
9	41.512	608.4	0.5729	41.737	598.2	0.5738
10	42.052	612.4	0.5435	42.302	602.3	0.5447
11	42.235	616.7	0.5155	42.511	606.6	0.5170
12	42.227	621.1	0.4893	42.533	611.6	0.4911
13	42.110	625.5	0.4651	42.447	616.8	0.4673
14	41.913	629.7	0.4429	42.281	622.0	0.4455
15	41.674	633.6	0.4227	42.072	627.0	0.4255
16	41.300	637.2	0.4039	41.728	632.1	0.4070
17	40.978	640.1	0.3869	41.431	636.4	0.3900
18	40.463	641.8	0.3710	40.937	640.0	0.3743
19	39.610	642.3	0.3565	40.095	641.9	0.3598
20	37.856	641.1	0.3432	38.344	642.4	0.3465
21	34.788	637.2	0.3317	35.262	640.0	0.3350
22	29.770	628.7	0.3225	30.200	632.5	0.3259
23	22.692	613.7	0.3151	23.030	616.9	0.3185
24	8.453	580.5	0.3093	8.576	581.6	0.3125

Table 4-9. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A5

	Assembly Number A5								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.062	635.5	0.7396	2.162	632.2	0.7396
2	0.000		0.7396	3.848	876.9	0.7396	7.877	865.1	0.7396
3	0.000		0.7396	5.335	1036.3	0.7396	10.741	998.6	0.7396
4	0.000		0.7117	6.116	1038.0	0.7155	12.071	976.5	0.7188
5	0.000		0.6473	6.409	1069.2	0.6573	12.464	985.7	0.6642
6	0.000	Data Not	0.5859	6.454	1074.0	0.5976	12.478	982.8	0.6078
7	0.000	Required	0.5314	6.321	1059.7	0.5425	12.318	980.4	0.5557
8	0.000		0.4859	6.104	1036.7	0.4952	12.111	981.3	0.5098
9	0.000		0.4485	5.862	1011.7	0.4557	11.893	983.5	0.4703
10	0.000		0.4176	5.624	987.7	0.4228	11.659	983.8	0.4365
11	0.000		0.3915	5.405	966.2	0.3951	11.421	982.1	0.4075
12	0.000		0.3695	5.204	946.9	0.3717	11.184	978.8	0.3824
13	0.000		0.3507	5.021	929.7	0.3516	10.950	974.2	0.3606
14	0.000		0.3344	4.853	914.2	0.3342	10.720	968.6	0.3415
15	0.000		0.3201	4.696	899.9	0.3189	10.490	962.0	0.3247
16	0.000		0.3076	4.544	886.3	0.3055	10.254	954.5	0.3098
17	0.000		0.2967	4.392	873.0	0.2936	10.001	945.6	0.2966
18	0.000		0.2873	4.227	858.7	0.2830	9.707	934.4	0.2847
19	0.000		0.2791	4.023	841.4	0.2736	9.317	918.4	0.2741
20	0.000		0.2719	3.743	818.3	0.2653	8.742	893.6	0.2649
21	0.000		0.2657	3.336	785.9	0.2582	7.856	855.0	0.2569
22	0.000		0.2608	2.749	741.3	0.2524	6.519	797.9	0.2502
23	0.000		0.2570	2.027	690.0	0.2479	4.811	728.7	0.2451
24	0.000		0.2549	0.754	607.4	0.2453	1.793	620.3	0.2422

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	2.994	603.3	0.7396	4.186	617.1	0.7396	5.154	623.3	0.7396
2	10.959	736.4	0.7396	15.060	778.5	0.7396	18.339	800.5	0.7396
3	14.858	805.4	0.7396	19.957	841.6	0.7396	24.217	887.8	0.7396
4	16.865	807.5	0.7304	22.333	817.9	0.7360	27.202	884.4	0.7329
5	17.762	838.5	0.6883	23.316	822.7	0.6976	28.608	919.9	0.6950
6	18.147	862.2	0.6420	23.668	820.8	0.6535	29.297	949.2	0.6511
7	18.250	879.4	0.5958	23.729	818.5	0.6087	29.609	971.7	0.6057
8	18.230	891.9	0.5530	23.699	817.9	0.5664	29.714	984.1	0.5622
9	18.159	901.8	0.5139	23.681	820.9	0.5274	29.694	983.9	0.5221
10	18.048	910.2	0.4787	23.687	827.4	0.4919	29.589	973.7	0.4860
11	17.745	905.7	0.4471	23.482	833.0	0.4597	29.215	958.5	0.4537
12	17.354	895.3	0.4191	23.184	838.3	0.4311	28.728	941.7	0.4253
13	16.936	883.0	0.3947	22.857	843.5	0.4058	28.190	923.4	0.4003
14	16.525	871.1	0.3734	22.540	848.9	0.3833	27.641	903.7	0.3784
15	16.138	860.8	0.3549	22.246	854.3	0.3635	27.092	882.6	0.3590
16	15.785	853.3	0.3385	21.932	856.6	0.3455	26.496	859.8	0.3417
17	15.489	850.6	0.3242	21.624	855.9	0.3294	25.893	836.6	0.3261
18	15.210	851.5	0.3117	21.288	852.5	0.3148	25.310	817.7	0.3122
19	14.716	844.9	0.3001	20.703	847.3	0.3016	24.528	803.0	0.2996
20	13.879	828.5	0.2898	19.668	835.9	0.2899	23.284	787.6	0.2883
21	12.543	801.0	0.2808	17.974	815.8	0.2799	21.262	764.1	0.2787
22	10.479	758.6	0.2735	15.262	780.7	0.2718	18.053	729.9	0.2708
23	7.721	701.3	0.2676	11.434	726.0	0.2655	13.621	690.3	0.2647
24	2.861	610.5	0.2641	4.258	619.9	0.2615	5.068	607.3	0.2608

Table 4-9. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A5

	Assembly Number A5								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.994	631.9	0.7396	7.369	590.0	0.7396	7.657	586.8	0.7396
2	24.002	807.3	0.7396	25.057	649.3	0.7396	25.855	638.4	0.7396
3	31.106	871.8	0.7396	32.337	665.3	0.7396	33.265	652.1	0.7396
4	34.555	843.9	0.7295	35.862	657.3	0.7303	36.848	645.5	0.7310
5	36.111	850.9	0.6931	37.481	662.2	0.6952	38.515	649.8	0.6967
6	36.854	853.4	0.6508	38.297	667.9	0.6546	39.384	654.6	0.6573
7	37.232	856.5	0.6074	38.762	674.7	0.6130	39.910	660.1	0.6170
8	37.460	862.3	0.5659	39.087	682.4	0.5734	40.303	666.3	0.5787
9	37.614	870.6	0.5276	39.345	690.8	0.5370	40.634	673.0	0.5437
10	37.686	879.1	0.4930	39.513	698.6	0.5039	40.876	679.9	0.5118
11	37.480	887.3	0.4617	39.395	705.9	0.4740	40.828	686.5	0.4831
12	37.156	895.3	0.4340	39.151	712.5	0.4473	40.653	693.0	0.4574
13	36.742	901.4	0.4093	38.806	718.3	0.4234	40.371	699.0	0.4342
14	36.270	905.3	0.3872	38.388	722.8	0.4018	40.010	704.5	0.4132
15	35.735	906.0	0.3676	37.889	725.9	0.3824	39.557	708.9	0.3942
16	35.074	902.7	0.3499	37.244	727.2	0.3647	38.944	712.1	0.3767
17	34.317	895.1	0.3340	36.478	726.5	0.3485	38.191	713.3	0.3606
18	33.511	884.2	0.3195	35.634	723.3	0.3337	37.336	712.2	0.3456
19	32.442	870.3	0.3064	34.496	717.4	0.3202	36.158	708.4	0.3318
20	30.790	851.0	0.2947	32.737	708.5	0.3080	34.326	701.3	0.3194
21	28.108	820.7	0.2846	29.892	695.1	0.2976	31.363	690.0	0.3088
22	23.871	775.8	0.2764	25.396	674.3	0.2892	26.668	671.4	0.3002
23	18.114	721.5	0.2699	19.261	645.0	0.2825	20.225	643.6	0.2933
24	6.784	619.3	0.2661	7.193	590.8	0.2779	7.537	590.3	0.2882

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.668	571.7	0.7396	7.825	576.8	0.7396	7.962	573.3	0.7396
2	25.888	597.5	0.7396	26.327	609.7	0.7396	26.699	598.4	0.7396
3	33.308	609.6	0.7396	33.824	618.9	0.7396	34.253	604.6	0.7396
4	36.899	613.1	0.7310	37.450	616.3	0.7314	37.904	603.0	0.7317
5	38.572	619.2	0.6969	39.149	618.9	0.6976	39.622	604.7	0.6983
6	39.448	626.5	0.6574	40.049	621.3	0.6588	40.547	607.0	0.6600
7	39.979	631.8	0.6172	40.610	624.4	0.6192	41.141	610.1	0.6210
8	40.376	636.0	0.5790	41.041	627.9	0.5817	41.610	613.6	0.5840
9	40.711	640.2	0.5440	41.412	631.6	0.5472	42.021	617.4	0.5501
10	40.956	643.4	0.5122	41.690	635.0	0.5158	42.338	621.0	0.5193
11	40.912	647.7	0.4835	41.677	638.2	0.4874	42.362	624.5	0.4914
12	40.738	648.8	0.4578	41.531	641.2	0.4619	42.252	627.9	0.4662
13	40.458	650.9	0.4346	41.274	643.6	0.4388	42.026	630.9	0.4435
14	40.097	650.9	0.4137	40.928	645.2	0.4179	41.709	633.6	0.4227
15	39.644	650.9	0.3946	40.484	646.1	0.3987	41.289	635.9	0.4037
16	39.030	649.9	0.3771	39.873	646.4	0.3812	40.699	637.9	0.3862
17	38.275	647.7	0.3610	39.113	645.9	0.3649	39.953	639.3	0.3699
18	37.417	644.5	0.3460	38.240	644.3	0.3498	39.084	639.7	0.3548
19	36.236	641.3	0.3322	37.031	641.4	0.3359	37.866	638.8	0.3408
20	34.399	636.0	0.3197	35.150	636.8	0.3234	35.957	636.1	0.3282
21	31.429	628.6	0.3092	32.116	630.2	0.3127	32.869	631.0	0.3175
22	26.725	619.2	0.3006	27.314	620.1	0.3041	27.970	621.8	0.3088
23	20.268	604.9	0.2936	20.716	605.9	0.2971	21.219	607.5	0.3018
24	7.552	576.7	0.2885	7.709	577.1	0.2917	7.885	577.6	0.2961

Table 4-9. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A5

	Assembly Number A5					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.058	570.2	0.7396	8.103	567.4	0.7396
2	26.956	589.1	0.7396	27.079	582.1	0.7396
3	34.546	593.4	0.7396	34.684	584.9	0.7396
4	38.211	592.6	0.7319	38.354	584.9	0.7319
5	39.942	593.9	0.6988	40.090	585.7	0.6990
6	40.884	595.7	0.6608	41.041	587.1	0.6611
7	41.501	598.0	0.6221	41.671	589.2	0.6226
8	41.999	601.0	0.5856	42.185	591.9	0.5863
9	42.442	604.2	0.5521	42.646	594.8	0.5530
10	42.793	607.7	0.5217	43.018	598.2	0.5229
11	42.851	611.2	0.4943	43.099	602.0	0.4958
12	42.778	615.1	0.4696	43.049	605.8	0.4714
13	42.587	618.7	0.4473	42.884	610.1	0.4494
14	42.304	622.2	0.4269	42.627	614.4	0.4293
15	41.916	625.6	0.4082	42.264	618.6	0.4108
16	41.355	628.7	0.3909	41.729	623.0	0.3938
17	40.635	631.4	0.3748	41.034	627.2	0.3780
18	39.784	633.3	0.3598	40.203	630.6	0.3632
19	38.572	633.9	0.3458	39.006	633.1	0.3493
20	36.656	633.2	0.3332	37.093	633.7	0.3368
21	33.535	629.7	0.3225	33.961	631.8	0.3262
22	28.562	621.9	0.3139	28.947	624.8	0.3176
23	21.678	608.1	0.3068	21.979	610.8	0.3104
24	8.045	577.8	0.3007	8.149	578.5	0.3042

Table 4-10. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A6

	Assembly Number A6								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.238	648.9	0.7396	2.475	641.8	0.7396
2	0.000		0.7396	4.491	942.9	0.7396	9.021	911.7	0.7396
3	0.000		0.7396	6.180	1138.4	0.7396	12.095	1052.5	0.7396
4	0.000		0.6888	6.909	1124.7	0.6933	13.284	1015.5	0.6992
5	0.000		0.6180	7.009	1136.2	0.6267	13.448	1021.6	0.6377
6	0.000	Data Not	0.5538	6.834	1116.2	0.5640	13.226	1017.1	0.5788
7	0.000	Required	0.5011	6.547	1084.2	0.5101	12.883	1011.8	0.5273
8	0.000		0.4585	6.237	1050.7	0.4657	12.531	1007.9	0.4835
9	0.000		0.4240	5.942	1019.9	0.4293	12.199	1004.4	0.4464
10	0.000		0.3956	5.677	993.0	0.3992	11.896	1000.8	0.4148
11	0.000		0.3719	5.447	970.3	0.3740	11.627	997.2	0.3877
12	0.000		0.3517	5.246	950.9	0.3526	11.386	993.5	0.3644
13	0.000		0.3343	5.064	933.7	0.3343	11.159	989.3	0.3441
14	0.000		0.3192	4.895	918.0	0.3182	10.938	984.6	0.3263
15	0.000		0.3060	4.733	903.2	0.3042	10.716	979.1	0.3105
16	0.000		0.2945	4.574	889.0	0.2918	10.484	972.5	0.2965
17	0.000		0.2847	4.413	874.8	0.2809	10.229	964.0	0.2840
18	0.000		0.2761	4.240	859.8	0.2711	9.928	952.6	0.2728
19	0.000		0.2684	4.032	842.2	0.2624	9.525	935.5	0.2627
20	0.000		0.2616	3.755	819.3	0.2547	8.933	908.6	0.2539
21	0.000		0.2560	3.352	787.1	0.2480	8.025	867.1	0.2461
22	0.000		0.2514	2.762	742.3	0.2425	6.650	806.6	0.2397
23	0.000		0.2479	2.036	690.6	0.2382	4.902	734.2	0.2348
24	0.000		0.2458	0.762	607.9	0.2357	1.837	622.3	0.2318

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.740	627.3	0.7396	5.358	638.8	0.7396	5.898	594.3	0.7396
2	13.548	834.2	0.7396	18.802	851.8	0.7396	20.487	674.4	0.7396
3	18.038	941.0	0.7396	24.374	926.0	0.7396	26.430	702.2	0.7396
4	20.048	936.3	0.7108	26.756	890.0	0.7156	29.046	696.9	0.7185
5	20.703	971.7	0.6556	27.487	894.6	0.6624	30.005	711.7	0.6698
6	20.784	994.3	0.5999	27.589	895.9	0.6078	30.340	727.2	0.6203
7	20.619	1007.8	0.5489	27.477	899.2	0.5574	30.443	741.8	0.5744
8	20.319	1011.8	0.5036	27.247	903.5	0.5118	30.395	754.3	0.5328
9	19.945	1008.5	0.4643	26.971	909.5	0.4717	30.256	763.9	0.4954
10	19.557	1002.1	0.4306	26.695	916.5	0.4366	30.075	770.7	0.4622
11	19.206	995.8	0.4016	26.447	923.0	0.4061	29.876	774.2	0.4323
12	18.930	993.2	0.3766	26.269	929.2	0.3793	29.701	774.4	0.4054
13	18.708	993.6	0.3550	26.155	936.1	0.3559	29.560	772.4	0.3812
14	18.413	988.0	0.3357	25.948	941.8	0.3349	29.311	769.5	0.3594
15	18.058	978.1	0.3186	25.674	947.1	0.3162	28.979	765.3	0.3399
16	17.653	965.4	0.3035	25.327	950.8	0.2995	28.557	760.1	0.3224
17	17.195	950.7	0.2902	24.891	952.3	0.2847	28.033	753.9	0.3067
18	16.663	934.2	0.2783	24.323	949.9	0.2714	27.375	747.7	0.2927
19	15.998	916.0	0.2679	23.527	941.4	0.2595	26.483	741.1	0.2803
20	15.069	893.0	0.2585	22.334	924.5	0.2490	25.170	732.9	0.2695
21	13.632	858.2	0.2505	20.426	895.2	0.2398	23.077	720.5	0.2603
22	11.425	806.3	0.2438	17.415	847.4	0.2323	19.746	699.6	0.2529
23	8.486	737.6	0.2387	13.232	778.7	0.2266	15.053	667.3	0.2473
24	3.203	624.5	0.2356	5.095	641.3	0.2233	5.750	598.5	0.2426

Table 4-10. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A6

	Assembly Number A6								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.596	585.9	0.7396	7.151	605.3	0.7396	7.585	601.2	0.7396
2	22.542	640.9	0.7396	24.163	702.1	0.7396	25.394	684.9	0.7396
3	28.844	656.0	0.7396	30.774	732.4	0.7396	32.233	710.5	0.7396
4	31.638	650.0	0.7215	33.723	720.0	0.7234	35.296	699.8	0.7246
5	32.759	655.8	0.6768	34.956	729.5	0.6812	36.614	708.0	0.6843
6	33.278	662.5	0.6318	35.569	737.6	0.6385	37.301	715.2	0.6434
7	33.583	669.9	0.5907	35.960	745.1	0.5992	37.759	721.8	0.6057
8	33.757	678.1	0.5536	36.219	752.5	0.5635	38.084	728.3	0.5711
9	33.857	687.1	0.5208	36.398	759.5	0.5316	38.327	734.7	0.5400
10	33.929	696.7	0.4918	36.538	765.6	0.5029	38.523	740.4	0.5119
11	33.983	706.4	0.4657	36.637	769.6	0.4769	38.667	745.0	0.4861
12	34.045	715.6	0.4421	36.723	771.8	0.4530	38.785	748.2	0.4622
13	34.117	724.0	0.4204	36.803	772.5	0.4308	38.887	750.5	0.4399
14	34.058	731.6	0.4004	36.743	772.4	0.4104	38.845	752.3	0.4193
15	33.884	738.0	0.3821	36.559	771.5	0.3916	38.671	753.4	0.4002
16	33.580	742.7	0.3652	36.234	769.6	0.3743	38.347	753.5	0.3827
17	33.132	745.8	0.3497	35.748	766.2	0.3585	37.848	752.1	0.3665
18	32.507	747.2	0.3354	35.058	760.4	0.3439	37.122	748.4	0.3517
19	31.602	746.7	0.3227	34.050	751.3	0.3308	36.044	741.3	0.3382
20	30.200	743.0	0.3114	32.493	737.8	0.3192	34.376	730.1	0.3263
21	27.884	734.0	0.3021	29.954	718.8	0.3094	31.668	713.4	0.3163
22	24.070	714.9	0.2948	25.813	691.8	0.3018	27.269	688.6	0.3084
23	18.484	680.7	0.2893	19.797	657.7	0.2960	20.900	656.0	0.3023
24	6.987	602.9	0.2820	7.471	596.1	0.2887	7.880	595.7	0.2951

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.603	579.8	0.7396	7.843	586.4	0.7396	8.045	580.2	0.7396
2	25.449	624.3	0.7396	26.119	637.7	0.7396	26.670	618.0	0.7396
3	32.301	640.5	0.7396	33.090	652.5	0.7396	33.730	628.0	0.7396
4	35.374	641.3	0.7247	36.220	646.7	0.7253	36.901	624.1	0.7259
5	36.700	649.9	0.6845	37.583	650.6	0.6860	38.298	627.3	0.6872
6	37.395	658.5	0.6437	38.308	653.8	0.6459	39.061	631.0	0.6478
7	37.858	664.0	0.6059	38.802	657.1	0.6086	39.598	635.1	0.6113
8	38.189	670.6	0.5714	39.165	660.6	0.5744	40.008	639.6	0.5778
9	38.437	676.2	0.5403	39.446	664.1	0.5434	40.336	644.1	0.5472
10	38.636	679.6	0.5122	39.675	667.4	0.5154	40.606	648.1	0.5193
11	38.782	681.8	0.4865	39.844	669.9	0.4895	40.813	651.8	0.4937
12	38.902	684.1	0.4625	39.979	671.5	0.4654	40.979	654.9	0.4695
13	39.004	684.1	0.4402	40.089	672.4	0.4429	41.115	657.4	0.4470
14	38.961	682.9	0.4195	40.049	672.7	0.4221	41.097	659.6	0.4261
15	38.784	679.6	0.4004	39.869	672.4	0.4030	40.937	661.6	0.4068
16	38.457	676.2	0.3829	39.532	671.3	0.3852	40.615	663.1	0.3891
17	37.955	672.9	0.3668	39.010	669.1	0.3690	40.100	663.8	0.3727
18	37.224	667.3	0.3518	38.248	665.7	0.3540	39.333	663.3	0.3576
19	36.140	660.7	0.3384	37.119	660.9	0.3405	38.179	660.8	0.3440
20	34.465	653.1	0.3265	35.379	653.9	0.3285	36.390	655.9	0.3318
21	31.748	643.4	0.3165	32.571	644.3	0.3184	33.498	647.7	0.3215
22	27.336	629.7	0.3085	28.033	631.2	0.3104	28.834	635.5	0.3135
23	20.951	613.1	0.3024	21.480	614.0	0.3042	22.094	617.8	0.3072
24	7.898	579.7	0.2953	8.096	581.1	0.2971	8.322	582.2	0.3000

Table 4-10. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A6

	Assembly Number A6					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.189	575.8	0.7396	8.260	572.3	0.7396
2	27.060	605.1	0.7396	27.248	594.5	0.7396
3	34.177	612.0	0.7396	34.390	599.4	0.7396
4	37.373	609.5	0.7262	37.595	597.7	0.7264
5	38.792	611.7	0.6880	39.022	599.0	0.6883
6	39.581	614.4	0.6492	39.824	601.2	0.6498
7	40.152	618.0	0.6132	40.412	604.0	0.6141
8	40.602	622.1	0.5802	40.886	607.9	0.5814
9	40.973	626.7	0.5502	41.285	612.6	0.5517
10	41.289	631.5	0.5228	41.631	617.6	0.5246
11	41.538	636.0	0.4974	41.911	622.8	0.4996
12	41.744	640.2	0.4736	42.148	628.0	0.4761
13	41.916	644.1	0.4511	42.350	633.1	0.4539
14	41.930	647.6	0.4303	42.394	638.3	0.4332
15	41.800	650.8	0.4110	42.292	643.1	0.4141
16	41.503	653.5	0.3933	42.022	647.8	0.3963
17	41.007	655.6	0.3768	41.550	652.0	0.3799
18	40.248	656.5	0.3616	40.810	655.3	0.3647
19	39.088	655.8	0.3478	39.659	656.9	0.3509
20	37.273	653.0	0.3356	37.838	655.9	0.3386
21	34.324	646.8	0.3252	34.864	651.5	0.3282
22	29.557	635.8	0.3170	30.035	640.7	0.3199
23	22.652	618.4	0.3106	23.024	622.6	0.3134
24	8.527	582.3	0.3034	8.662	583.6	0.3061

Table 4-11. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A7

	Assembly Number A7								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.845	619.3	0.7396	1.961	633.3	0.7396
2	0.000		0.7396	3.076	803.2	0.7396	7.261	879.4	0.7396
3	0.000		0.7396	4.457	939.3	0.7396	10.415	1057.2	0.7396
4	0.000		0.7396	5.410	1045.0	0.7348	12.124	1048.2	0.7227
5	0.000		0.6962	5.988	1024.6	0.6868	12.789	1056.8	0.6691
6	0.000	Data Not	0.6386	6.299	1057.3	0.6290	12.955	1042.5	0.6115
7	0.000	Required	0.5828	6.293	1056.7	0.5730	12.798	1027.9	0.5572
8	0.000		0.5330	6.106	1036.9	0.5227	12.534	1020.6	0.5091
9	0.000		0.4911	5.847	1010.2	0.4802	12.236	1016.8	0.4678
10	0.000		0.4562	5.578	983.2	0.4446	11.899	1010.4	0.4329
11	0.000		0.4269	5.325	958.5	0.4149	11.561	1002.4	0.4034
12	0.000		0.4022	5.097	936.8	0.3899	11.236	993.4	0.3782
13	0.000		0.3811	4.895	918.0	0.3685	10.933	984.1	0.3566
14	0.000		0.3629	4.717	901.8	0.3499	10.652	974.7	0.3377
15	0.000		0.3472	4.561	887.8	0.3339	10.395	965.6	0.3212
16	0.000		0.3334	4.427	876.0	0.3196	10.157	956.3	0.3067
17	0.000		0.3212	4.309	865.8	0.3070	9.928	946.5	0.2937
18	0.000		0.3106	4.194	855.9	0.2956	9.680	934.9	0.2821
19	0.000		0.3013	4.038	842.7	0.2855	9.339	919.0	0.2718
20	0.000		0.2933	3.778	821.2	0.2765	8.778	893.7	0.2626
21	0.000		0.2865	3.362	787.9	0.2687	7.854	852.8	0.2547
22	0.000		0.2810	2.753	741.6	0.2624	6.457	793.1	0.2482
23	0.000		0.2768	2.016	689.3	0.2577	4.719	723.3	0.2432
24	0.000		0.2743	0.761	607.8	0.2550	1.783	619.3	0.2402

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	2.861	607.0	0.7396	3.586	593.8	0.7396	4.062	590.0	0.7396
2	10.596	752.8	0.7396	13.073	684.6	0.7396	14.738	672.9	0.7396
3	14.582	808.8	0.7396	17.508	709.6	0.7396	19.632	707.3	0.7396
4	16.652	791.5	0.7299	19.736	695.6	0.7348	22.145	704.6	0.7367
5	17.513	803.2	0.6838	20.727	701.8	0.6935	23.364	719.6	0.6994
6	17.819	811.7	0.6332	21.217	710.6	0.6486	24.062	733.5	0.6589
7	17.780	818.9	0.5855	21.421	722.4	0.6069	24.454	746.4	0.6213
8	17.594	823.7	0.5429	21.509	736.0	0.5702	24.694	756.9	0.5875
9	17.337	826.2	0.5060	21.527	749.9	0.5381	24.821	764.6	0.5573
10	17.012	827.0	0.4742	21.461	763.2	0.5098	24.823	769.4	0.5299
11	16.637	824.7	0.4461	21.313	775.0	0.4837	24.714	772.2	0.5041
12	16.247	820.7	0.4214	21.113	785.1	0.4596	24.541	774.1	0.4799
13	15.872	816.3	0.3997	20.889	793.2	0.4371	24.344	776.0	0.4571
14	15.534	812.8	0.3809	20.668	799.5	0.4166	24.128	776.4	0.4359
15	15.279	812.9	0.3652	20.515	805.1	0.3985	23.924	772.7	0.4165
16	15.254	826.0	0.3544	20.646	813.6	0.3848	23.927	763.7	0.4008
17	15.428	851.3	0.3467	21.037	825.7	0.3736	24.141	751.3	0.3874
18	15.218	853.8	0.3337	20.886	829.1	0.3577	23.828	740.1	0.3706
19	14.732	844.5	0.3202	20.377	827.8	0.3417	23.166	729.8	0.3542
20	13.894	827.2	0.3081	19.426	821.4	0.3274	22.047	718.5	0.3398
21	12.531	800.4	0.2980	17.801	806.9	0.3157	20.199	703.9	0.3280
22	10.430	759.4	0.2900	15.154	777.5	0.3069	17.212	682.1	0.3191
23	7.651	702.5	0.2835	11.370	726.3	0.2998	12.941	652.0	0.3121
24	2.833	609.6	0.2781	4.189	618.1	0.2931	4.728	591.9	0.3049

Table 4-11. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A7

	Assembly Number A7								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	4.841	589.1	0.7396	5.391	604.8	0.7396	6.010	619.9	0.7396
2	17.287	661.8	0.7396	19.074	718.2	0.7396	20.976	762.5	0.7396
3	22.742	686.3	0.7396	24.950	760.6	0.7396	27.247	811.5	0.7396
4	25.492	677.6	0.7390	27.869	778.2	0.7396	30.313	830.5	0.7387
5	26.854	682.9	0.7062	29.297	750.8	0.7089	31.793	794.1	0.7086
6	27.696	688.3	0.6706	30.163	752.9	0.6750	32.671	795.4	0.6753
7	28.265	695.0	0.6374	30.746	754.2	0.6428	33.255	795.5	0.6435
8	28.710	702.9	0.6074	31.211	755.9	0.6133	33.724	795.9	0.6141
9	29.048	711.1	0.5803	31.578	758.5	0.5865	34.110	798.0	0.5872
10	29.249	718.9	0.5554	31.808	761.1	0.5615	34.379	802.3	0.5621
11	29.323	726.1	0.5317	31.905	763.1	0.5376	34.502	805.1	0.5380
12	29.310	732.5	0.5091	31.907	764.5	0.5146	34.539	809.0	0.5147
13	29.256	738.2	0.4874	31.867	765.7	0.4927	34.577	817.7	0.4925
14	29.157	743.0	0.4669	31.774	766.3	0.4719	34.526	822.4	0.4713
15	29.034	746.3	0.4477	31.642	765.5	0.4524	34.419	825.2	0.4515
16	29.056	747.1	0.4309	31.625	762.0	0.4352	34.425	827.8	0.4339
17	29.224	745.2	0.4157	31.724	755.9	0.4196	34.494	824.4	0.4179
18	28.858	743.0	0.3983	31.277	748.7	0.4021	33.998	818.9	0.4004
19	28.108	739.5	0.3818	30.419	739.3	0.3856	33.075	811.7	0.3841
20	26.830	733.1	0.3671	29.000	727.2	0.3710	31.512	795.8	0.3695
21	24.687	721.3	0.3552	26.695	713.6	0.3590	28.980	771.4	0.3575
22	21.164	700.4	0.3460	22.892	690.6	0.3497	24.818	734.4	0.3483
23	16.015	667.5	0.3391	17.311	656.4	0.3426	18.790	690.8	0.3411
24	5.801	597.4	0.3310	6.266	594.8	0.3348	6.837	609.4	0.3333

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	6.035	588.1	0.7396	6.402	601.2	0.7396	6.678	588.1	0.7396
2	21.054	653.2	0.7396	22.158	693.0	0.7396	22.969	647.4	0.7396
3	27.345	679.2	0.7396	28.691	725.6	0.7396	29.660	665.8	0.7396
4	30.424	677.3	0.7388	31.880	714.0	0.7395	32.920	674.2	0.7396
5	31.914	688.6	0.7087	33.434	721.5	0.7106	34.528	664.2	0.7119
6	32.802	700.0	0.6755	34.376	727.8	0.6785	35.526	669.8	0.6808
7	33.398	714.0	0.6439	35.025	734.1	0.6477	36.241	676.4	0.6509
8	33.883	733.1	0.6147	35.563	740.4	0.6190	36.850	683.6	0.6232
9	34.286	753.9	0.5878	36.013	746.0	0.5925	37.373	691.1	0.5975
10	34.571	774.0	0.5628	36.331	750.0	0.5676	37.753	697.6	0.5733
11	34.706	789.5	0.5387	36.488	752.7	0.5434	37.965	703.3	0.5497
12	34.747	794.7	0.5154	36.542	754.3	0.5200	38.071	708.8	0.5268
13	34.783	792.1	0.4932	36.581	754.6	0.4976	38.166	714.8	0.5048
14	34.728	786.9	0.4719	36.519	753.8	0.4762	38.172	722.1	0.4837
15	34.614	777.9	0.4520	36.383	751.1	0.4560	38.108	729.9	0.4639
16	34.610	765.2	0.4343	36.333	745.5	0.4381	38.110	735.5	0.4460
17	34.667	750.2	0.4183	36.323	737.5	0.4217	38.118	737.5	0.4294
18	34.161	737.9	0.4008	35.742	728.6	0.4041	37.528	736.5	0.4117
19	33.226	723.5	0.3843	34.716	718.0	0.3876	36.452	731.1	0.3949
20	31.649	707.0	0.3698	33.022	704.5	0.3730	34.663	720.8	0.3800
21	29.100	687.5	0.3578	30.310	686.1	0.3609	31.791	703.7	0.3675
22	24.915	661.8	0.3486	25.910	662.6	0.3515	27.145	678.3	0.3578
23	18.862	634.9	0.3414	19.598	635.2	0.3443	20.507	646.0	0.3502
24	6.863	587.7	0.3336	7.128	587.7	0.3366	7.448	590.7	0.3424

Table 4-11. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A7

	Assembly Number A7					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	6.900	584.9	0.7396	7.021	581.7	0.7396
2	23.611	636.2	0.7396	23.951	624.4	0.7396
3	30.422	651.5	0.7396	30.818	635.6	0.7396
4	33.737	658.6	0.7396	34.152	639.5	0.7396
5	35.389	650.6	0.7130	35.818	632.3	0.7134
6	36.436	655.9	0.6826	36.885	635.7	0.6835
7	37.208	662.2	0.6535	37.686	640.7	0.6548
8	37.884	669.6	0.6266	38.401	647.5	0.6283
9	38.478	677.6	0.6017	39.040	655.3	0.6038
10	38.927	685.4	0.5782	39.535	663.5	0.5808
11	39.202	692.6	0.5553	39.856	671.7	0.5585
12	39.364	699.1	0.5330	40.063	679.8	0.5366
13	39.512	705.3	0.5114	40.253	687.5	0.5155
14	39.567	711.0	0.4906	40.346	694.5	0.4949
15	39.541	715.5	0.4710	40.357	701.4	0.4755
16	39.566	718.2	0.4530	40.413	707.3	0.4577
17	39.582	719.2	0.4361	40.455	712.2	0.4409
18	38.988	718.7	0.4183	39.881	716.0	0.4231
19	37.885	715.5	0.4014	38.782	716.8	0.4063
20	36.035	708.3	0.3863	36.913	713.1	0.3912
21	33.052	695.4	0.3737	33.874	702.6	0.3784
22	28.217	673.9	0.3637	28.927	681.8	0.3684
23	21.307	644.0	0.3559	21.840	650.2	0.3604
24	7.732	590.3	0.3481	7.920	592.2	0.3524

Table 4-12. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A8

	Assembly Number A8								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.764	613.3	0.7396	1.752	624.4	0.7396
2	0.000		0.7396	2.789	777.3	0.7396	6.467	833.8	0.7396
3	0.000		0.7396	3.985	890.6	0.7396	9.204	979.4	0.7396
4	0.000		0.7396	4.806	976.8	0.7396	10.752	1055.9	0.7380
5	0.000		0.7145	5.306	956.6	0.7100	11.435	992.5	0.6951
6	0.000	Data Not	0.6620	5.555	980.9	0.6609	11.641	988.5	0.6443
7	0.000	Required	0.6115	5.590	984.3	0.6101	11.594	981.0	0.5938
8	0.000		0.5636	5.477	973.2	0.5621	11.427	976.1	0.5469
9	0.000		0.5218	5.289	955.0	0.5196	11.191	971.7	0.5053
10	0.000		0.4861	5.077	934.9	0.4830	10.921	966.5	0.4691
11	0.000		0.4559	4.867	915.4	0.4519	10.641	960.2	0.4380
12	0.000		0.4302	4.671	897.7	0.4251	10.364	953.0	0.4110
13	0.000		0.4080	4.494	881.9	0.4022	10.098	945.2	0.3877
14	0.000		0.3889	4.337	868.2	0.3822	9.853	937.5	0.3674
15	0.000		0.3723	4.205	856.9	0.3647	9.636	930.1	0.3494
16	0.000		0.3577	4.102	848.1	0.3491	9.452	923.2	0.3335
17	0.000		0.3448	4.034	842.4	0.3352	9.296	915.7	0.3194
18	0.000		0.3335	4.009	840.3	0.3225	9.181	908.1	0.3066
19	0.000		0.3235	3.974	837.4	0.3108	9.022	897.7	0.2951
20	0.000		0.3147	3.780	821.3	0.3002	8.573	876.8	0.2848
21	0.000		0.3070	3.399	790.8	0.2911	7.736	840.6	0.2758
22	0.000		0.3007	2.799	745.0	0.2837	6.403	785.8	0.2684
23	0.000		0.2958	2.045	691.2	0.2782	4.685	719.2	0.2628
24	0.000		0.2931	0.758	607.6	0.2750	1.741	617.0	0.2597

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.097	631.8	0.7396	4.293	617.3	0.7396	5.031	607.6	0.7396
2	11.392	863.1	0.7396	15.399	772.8	0.7396	17.852	732.9	0.7396
3	15.575	975.7	0.7396	20.385	822.9	0.7396	23.478	784.8	0.7396
4	17.730	951.6	0.7346	22.791	795.5	0.7386	26.262	777.2	0.7392
5	18.613	966.1	0.6911	23.780	801.3	0.6988	27.544	798.5	0.7024
6	18.851	968.4	0.6410	24.123	807.0	0.6521	28.167	819.4	0.6592
7	18.762	965.3	0.5915	24.174	814.8	0.6057	28.481	839.6	0.6156
8	18.495	958.0	0.5456	24.068	823.7	0.5620	28.539	852.4	0.5738
9	18.121	948.1	0.5049	23.865	833.4	0.5227	28.414	858.6	0.5351
10	17.691	936.7	0.4695	23.601	842.8	0.4877	28.158	859.2	0.4998
11	17.239	924.6	0.4390	23.298	851.4	0.4567	27.809	855.6	0.4681
12	16.789	912.7	0.4126	22.971	858.6	0.4290	27.408	849.7	0.4399
13	16.360	901.5	0.3897	22.639	864.3	0.4044	26.974	841.7	0.4146
14	15.967	891.5	0.3696	22.316	868.4	0.3822	26.523	831.8	0.3920
15	15.619	882.8	0.3520	22.015	871.2	0.3624	26.072	820.4	0.3717
16	15.320	875.2	0.3364	21.740	872.7	0.3444	25.623	807.3	0.3534
17	15.045	867.4	0.3224	21.459	872.3	0.3282	25.156	793.5	0.3368
18	14.767	856.9	0.3098	21.128	869.2	0.3134	24.651	780.9	0.3219
19	14.382	842.4	0.2984	20.627	862.3	0.3001	23.987	769.2	0.3085
20	13.617	822.7	0.2883	19.658	850.4	0.2884	22.837	756.5	0.2967
21	12.316	794.6	0.2794	17.986	829.2	0.2784	20.903	738.4	0.2868
22	10.269	753.3	0.2723	15.269	792.3	0.2704	17.780	711.3	0.2789
23	7.548	698.9	0.2668	11.453	735.5	0.2645	13.406	675.5	0.2730
24	2.798	610.0	0.2637	4.268	623.0	0.2607	4.974	601.4	0.2691

Table 4-12. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A8

	Assembly Number A8								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.049	598.5	0.7396	6.488	595.4	0.7396	6.813	590.4	0.7396
2	21.005	688.2	0.7396	22.290	670.3	0.7396	23.222	652.5	0.7396
3	27.285	717.7	0.7396	28.793	691.3	0.7396	29.887	669.9	0.7396
4	30.398	732.9	0.7396	31.990	699.3	0.7396	33.150	677.1	0.7396
5	32.090	723.6	0.7081	33.729	683.4	0.7102	34.931	665.0	0.7117
6	33.001	735.1	0.6696	34.700	688.2	0.6735	35.949	669.3	0.6762
7	33.517	743.3	0.6303	35.293	694.5	0.6361	36.601	674.8	0.6401
8	33.792	752.2	0.5922	35.660	702.0	0.5998	37.037	681.2	0.6053
9	33.908	762.1	0.5568	35.874	710.1	0.5660	37.326	688.3	0.5728
10	33.894	772.3	0.5243	35.953	717.9	0.5348	37.480	695.4	0.5427
11	33.775	782.1	0.4947	35.914	724.6	0.5062	37.510	702.0	0.5151
12	33.590	791.4	0.4680	35.802	730.8	0.4801	37.463	708.3	0.4897
13	33.338	799.3	0.4436	35.608	735.8	0.4560	37.328	714.0	0.4662
14	33.026	805.4	0.4213	35.338	739.4	0.4339	37.110	719.1	0.4444
15	32.659	809.2	0.4009	34.999	741.8	0.4134	36.813	723.3	0.4241
16	32.231	810.1	0.3820	34.581	742.7	0.3943	36.423	726.0	0.4051
17	31.724	808.3	0.3647	34.063	741.8	0.3767	35.917	727.2	0.3874
18	31.128	804.3	0.3488	33.433	738.8	0.3606	35.277	726.2	0.3710
19	30.313	797.7	0.3344	32.554	733.3	0.3458	34.362	722.7	0.3559
20	28.921	787.2	0.3219	31.060	724.6	0.3329	32.798	715.8	0.3428
21	26.567	769.3	0.3112	28.538	710.5	0.3220	30.156	704.1	0.3317
22	22.723	739.5	0.3028	24.423	688.3	0.3133	25.832	684.2	0.3229
23	17.261	696.7	0.2967	18.557	656.4	0.3070	19.639	654.1	0.3163
24	6.387	608.9	0.2920	6.853	594.8	0.3019	7.242	594.1	0.3111

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	6.835	584.5	0.7396	7.156	595.8	0.7396	7.437	588.6	0.7396
2	23.293	644.3	0.7396	24.226	670.8	0.7396	25.021	645.6	0.7396
3	29.980	672.6	0.7396	31.105	695.8	0.7396	32.041	661.9	0.7396
4	33.262	697.9	0.7396	34.473	707.3	0.7396	35.467	668.8	0.7396
5	35.057	694.3	0.7118	36.311	691.0	0.7132	37.343	658.0	0.7144
6	36.085	705.8	0.6765	37.376	695.2	0.6791	38.453	662.5	0.6811
7	36.744	714.0	0.6405	38.075	699.7	0.6443	39.209	668.1	0.6474
8	37.187	722.3	0.6058	38.562	704.7	0.6104	39.764	675.0	0.6147
9	37.482	729.5	0.5734	38.903	710.0	0.5789	40.173	681.9	0.5841
10	37.639	733.1	0.5434	39.096	714.1	0.5494	40.426	688.0	0.5556
11	37.671	735.5	0.5157	39.154	717.1	0.5221	40.531	692.9	0.5291
12	37.624	735.5	0.4904	39.123	719.0	0.4970	40.541	697.2	0.5044
13	37.487	733.1	0.4669	38.990	719.5	0.4736	40.440	700.5	0.4814
14	37.267	730.7	0.4451	38.762	718.5	0.4518	40.235	702.9	0.4598
15	36.966	725.9	0.4248	38.444	716.6	0.4312	39.933	704.6	0.4395
16	36.570	718.7	0.4057	38.019	713.2	0.4120	39.514	705.2	0.4203
17	36.057	710.5	0.3879	37.464	708.4	0.3941	38.951	704.4	0.4023
18	35.409	701.2	0.3715	36.759	701.9	0.3775	38.219	701.5	0.3855
19	34.486	692.0	0.3565	35.760	693.3	0.3623	37.167	696.0	0.3701
20	32.911	679.6	0.3433	34.086	682.3	0.3488	35.411	687.5	0.3564
21	30.256	665.1	0.3322	31.302	668.1	0.3374	32.502	674.8	0.3448
22	25.915	646.6	0.3234	26.788	649.6	0.3284	27.803	656.3	0.3355
23	19.701	624.4	0.3168	20.355	626.8	0.3218	21.117	631.8	0.3287
24	7.265	584.7	0.3115	7.501	584.9	0.3164	7.773	586.3	0.3231

Table 4-12. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly A8

	Assembly Number A8					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.637	582.3	0.7396	7.734	577.2	0.7396
2	25.575	625.2	0.7396	25.840	609.5	0.7396
3	32.685	636.5	0.7396	32.990	617.4	0.7396
4	36.146	640.9	0.7396	36.463	619.8	0.7396
5	38.046	633.6	0.7151	38.372	614.9	0.7155
6	39.188	637.0	0.6824	39.530	617.6	0.6831
7	39.987	641.6	0.6494	40.353	621.6	0.6503
8	40.596	647.4	0.6175	40.995	627.2	0.6187
9	41.067	654.2	0.5877	41.503	633.5	0.5894
10	41.382	661.0	0.5600	41.859	640.5	0.5622
11	41.547	667.6	0.5344	42.066	647.8	0.5370
12	41.614	674.0	0.5105	42.177	655.5	0.5137
13	41.565	679.8	0.4882	42.172	663.3	0.4919
14	41.407	685.2	0.4671	42.058	671.2	0.4714
15	41.143	689.5	0.4471	41.836	678.7	0.4519
16	40.756	693.2	0.4283	41.487	685.7	0.4335
17	40.213	695.5	0.4106	40.976	691.6	0.4160
18	39.484	695.8	0.3938	40.269	695.6	0.3995
19	38.412	693.5	0.3783	39.204	697.0	0.3841
20	36.607	687.9	0.3645	37.384	694.2	0.3703
21	33.607	677.6	0.3527	34.340	686.0	0.3586
22	28.753	660.3	0.3433	29.393	669.2	0.3491
23	21.835	635.2	0.3362	22.321	642.1	0.3419
24	8.028	587.4	0.3303	8.199	589.4	0.3357

Table 4-13. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B1

	Assembly Number B1								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.982	629.4	0.7396	2.163	637.7	0.7396
2	0.000		0.7396	3.486	841.2	0.7396	7.638	875.8	0.7396
3	0.000		0.7396	4.747	969.7	0.7396	10.402	1023.8	0.7396
4	0.000		0.7128	5.345	959.7	0.7322	11.614	1004.7	0.7249
5	0.000		0.6515	5.464	971.2	0.6860	11.788	1009.9	0.6750
6	0.000	Data Not	0.5959	5.342	959.4	0.6354	11.502	994.6	0.6225
7	0.000	Required	0.5474	5.132	939.4	0.5873	11.074	974.6	0.5734
8	0.000		0.5069	4.943	921.8	0.5442	10.712	959.1	0.5299
9	0.000		0.4730	4.827	911.2	0.5064	10.495	950.1	0.4921
10	0.000		0.4437	4.822	910.7	0.4730	10.465	947.9	0.4591
11	0.000		0.4175	4.990	926.2	0.4428	10.701	953.9	0.4298
12	0.000		0.3932	5.314	956.7	0.4147	11.161	966.1	0.4031
13	0.000		0.3708	5.402	965.2	0.3890	11.291	969.8	0.3786
14	0.000		0.3510	5.378	962.9	0.3660	11.269	970.0	0.3566
15	0.000		0.3335	5.288	954.2	0.3459	11.156	968.0	0.3372
16	0.000		0.3183	5.160	942.1	0.3284	10.984	964.0	0.3200
17	0.000		0.3051	5.005	927.6	0.3129	10.763	958.1	0.3049
18	0.000		0.2937	4.821	910.6	0.2994	10.478	949.2	0.2914
19	0.000		0.2842	4.589	889.8	0.2876	10.088	935.4	0.2795
20	0.000		0.2759	4.275	862.4	0.2774	9.524	914.0	0.2691
21	0.000		0.2690	3.827	824.8	0.2686	8.655	879.1	0.2601
22	0.000		0.2635	3.181	773.5	0.2615	7.274	821.5	0.2525
23	0.000		0.2594	2.376	714.1	0.2561	5.466	749.2	0.2468
24	0.000		0.2570	0.893	615.9	0.2530	2.084	629.0	0.2433

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.221	615.6	0.7396	4.895	641.6	0.7396	5.427	593.7	0.7396
2	11.481	786.2	0.7396	17.084	874.6	0.7396	18.889	683.1	0.7396
3	15.634	885.4	0.7396	22.504	964.1	0.7396	24.881	726.7	0.7396
4	17.719	890.4	0.7323	24.942	921.3	0.7308	27.758	731.3	0.7329
5	18.480	930.6	0.6885	25.665	918.9	0.6859	28.916	761.2	0.6922
6	18.615	960.6	0.6389	25.691	912.1	0.6358	29.561	805.9	0.6476
7	18.557	987.9	0.5904	25.555	907.2	0.5871	30.548	894.1	0.6050
8	18.530	1013.3	0.5447	25.467	903.5	0.5411	30.999	940.0	0.5610
9	18.346	1015.8	0.5031	25.323	905.9	0.4991	30.980	951.0	0.5178
10	18.193	1006.4	0.4664	25.287	913.2	0.4619	30.875	944.9	0.4781
11	18.229	991.2	0.4346	25.397	917.8	0.4290	30.819	930.5	0.4429
12	18.470	975.0	0.4065	25.690	921.1	0.3998	30.886	911.1	0.4118
13	18.428	962.4	0.3816	25.726	926.0	0.3739	30.686	891.4	0.3848
14	18.236	950.1	0.3597	25.614	931.1	0.3510	30.332	871.6	0.3611
15	17.947	937.6	0.3404	25.395	935.6	0.3308	29.857	851.2	0.3401
16	17.592	924.7	0.3234	25.081	938.2	0.3128	29.271	830.1	0.3216
17	17.177	911.3	0.3084	24.668	938.3	0.2968	28.584	809.4	0.3053
18	16.683	897.1	0.2952	24.118	934.7	0.2825	27.836	794.7	0.2910
19	16.047	880.7	0.2834	23.341	925.8	0.2698	27.039	793.3	0.2791
20	15.159	859.5	0.2732	22.183	908.8	0.2586	25.881	793.3	0.2688
21	13.827	830.2	0.2643	20.392	880.8	0.2488	23.906	779.9	0.2596
22	11.702	785.3	0.2569	17.466	834.1	0.2408	20.492	745.6	0.2515
23	8.792	723.3	0.2512	13.305	766.2	0.2345	15.665	701.2	0.2453
24	3.376	620.9	0.2478	5.175	637.1	0.2308	6.061	611.6	0.2412

Table 4-13. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B1

	Assembly Number B1								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.987	620.3	0.7396	7.239	579.7	0.7396	7.430	577.3	0.7396
2	23.640	761.9	0.7396	24.339	617.6	0.7396	24.859	609.8	0.7396
3	30.661	812.9	0.7396	31.463	626.6	0.7396	32.058	617.4	0.7396
4	34.090	797.6	0.7328	34.933	622.1	0.7333	35.556	613.8	0.7338
5	35.570	811.7	0.6957	36.452	625.0	0.6971	37.102	616.1	0.6981
6	36.475	823.4	0.6544	37.401	628.3	0.6568	38.082	618.8	0.6586
7	37.532	826.5	0.6137	38.504	631.7	0.6173	39.216	621.4	0.6197
8	38.132	833.3	0.5718	39.168	636.5	0.5766	39.922	625.1	0.5799
9	38.356	844.5	0.5308	39.471	642.5	0.5370	40.278	629.7	0.5413
10	38.505	856.3	0.4928	39.702	648.7	0.5006	40.565	634.5	0.5058
11	38.689	867.7	0.4587	39.971	655.2	0.4680	40.893	639.7	0.4743
12	38.943	876.7	0.4282	40.307	661.5	0.4390	41.289	645.1	0.4463
13	38.905	884.5	0.4012	40.349	667.8	0.4134	41.394	650.7	0.4218
14	38.676	890.6	0.3774	40.193	673.5	0.3907	41.300	656.2	0.4002
15	38.270	894.0	0.3561	39.848	678.4	0.3705	41.013	661.5	0.3810
16	37.676	893.6	0.3371	39.301	682.1	0.3523	40.517	666.2	0.3636
17	36.897	889.1	0.3201	38.551	684.4	0.3359	39.806	669.7	0.3479
18	35.974	880.6	0.3052	37.632	684.7	0.3212	38.908	671.7	0.3337
19	34.941	869.2	0.2925	36.570	682.4	0.3085	37.841	671.2	0.3211
20	33.615	861.2	0.2822	35.173	676.8	0.2977	36.407	667.8	0.3104
21	31.145	838.2	0.2730	32.594	668.2	0.2882	33.761	661.7	0.3008
22	26.724	793.2	0.2645	28.000	654.7	0.2798	29.044	650.6	0.2927
23	20.510	735.3	0.2580	21.495	632.7	0.2730	22.310	630.4	0.2859
24	7.968	625.8	0.2536	8.317	586.4	0.2673	8.605	585.6	0.2791

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.439	569.4	0.7396	7.567	573.5	0.7396	7.664	569.1	0.7396
2	24.886	590.4	0.7396	25.244	600.1	0.7396	25.509	586.9	0.7396
3	32.090	596.3	0.7396	32.506	606.9	0.7396	32.810	591.0	0.7396
4	35.591	596.7	0.7338	36.033	605.2	0.7340	36.356	590.9	0.7343
5	37.140	599.7	0.6982	37.605	607.5	0.6989	37.944	592.4	0.6994
6	38.124	603.8	0.6587	38.613	609.9	0.6599	38.973	594.3	0.6607
7	39.262	607.9	0.6199	39.776	612.4	0.6216	40.157	596.2	0.6228
8	39.974	614.0	0.5801	40.520	615.7	0.5824	40.931	599.0	0.5841
9	40.336	620.2	0.5416	40.920	619.5	0.5445	41.364	602.0	0.5467
10	40.631	628.5	0.5062	41.251	623.2	0.5098	41.730	605.2	0.5125
11	40.965	634.8	0.4748	41.620	626.8	0.4788	42.133	608.4	0.4820
12	41.366	640.1	0.4468	42.050	629.8	0.4511	42.597	611.5	0.4548
13	41.474	643.3	0.4223	42.184	632.4	0.4268	42.769	615.0	0.4309
14	41.381	644.4	0.4007	42.113	634.7	0.4054	42.740	619.0	0.4100
15	41.096	646.5	0.3814	41.844	636.4	0.3861	42.515	623.1	0.3912
16	40.599	645.4	0.3641	41.356	637.3	0.3687	42.069	627.1	0.3742
17	39.886	643.3	0.3484	40.645	637.5	0.3530	41.394	630.5	0.3587
18	38.986	641.2	0.3341	39.738	636.8	0.3386	40.511	632.8	0.3446
19	37.916	638.0	0.3216	38.647	634.6	0.3259	39.426	633.3	0.3319
20	36.477	632.7	0.3108	37.169	630.6	0.3149	37.930	631.6	0.3208
21	33.825	626.4	0.3012	34.459	624.6	0.3052	35.178	627.6	0.3109
22	29.098	616.1	0.2931	29.648	616.1	0.2969	30.283	619.7	0.3026
23	22.351	602.8	0.2863	22.772	603.1	0.2901	23.263	606.3	0.2957
24	8.620	576.6	0.2794	8.769	576.3	0.2829	8.941	577.2	0.2880

Table 4-13. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B1

	Assembly Number B1					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.739	567.7	0.7396	7.779	566.5	0.7396
2	25.716	583.1	0.7396	25.822	578.8	0.7396
3	33.047	586.7	0.7396	33.167	581.5	0.7396
4	36.605	586.7	0.7344	36.730	581.9	0.7345
5	38.207	588.1	0.6998	38.336	582.6	0.6999
6	39.251	589.7	0.6614	39.388	583.8	0.6617
7	40.454	591.6	0.6238	40.599	585.1	0.6242
8	41.251	593.9	0.5854	41.410	587.4	0.5860
9	41.713	596.8	0.5484	41.888	590.0	0.5493
10	42.108	599.8	0.5146	42.300	592.8	0.5157
11	42.542	603.0	0.4846	42.752	595.7	0.4859
12	43.036	606.0	0.4577	43.264	598.7	0.4593
13	43.238	609.1	0.4344	43.486	601.9	0.4361
14	43.241	612.4	0.4139	43.509	605.2	0.4159
15	43.047	615.6	0.3954	43.337	608.9	0.3978
16	42.632	618.8	0.3788	42.944	612.5	0.3814
17	41.983	621.5	0.3636	42.318	616.3	0.3665
18	41.121	623.7	0.3496	41.476	619.7	0.3528
19	40.047	624.9	0.3370	40.417	622.2	0.3403
20	38.547	624.5	0.3258	38.922	623.1	0.3292
21	35.770	621.8	0.3160	36.139	622.0	0.3195
22	30.818	615.9	0.3078	31.157	617.0	0.3114
23	23.683	604.1	0.3008	23.952	605.4	0.3044
24	9.088	576.4	0.2927	9.181	576.7	0.2959

Table 4-14. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B2

	Assembly Number B2								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.086	637.2	0.7396	2.362	644.4	0.7396
2	0.000		0.7396	3.865	878.1	0.7396	8.384	910.0	0.7396
3	0.000		0.7396	5.318	1033.6	0.7396	11.441	1074.4	0.7396
4	0.000		0.7051	6.051	1030.3	0.7166	12.762	1047.0	0.7117
5	0.000		0.6391	6.262	1052.5	0.6594	13.001	1049.8	0.6532
6	0.000	Data Not	0.5780	6.207	1046.7	0.6013	12.788	1034.4	0.5953
7	0.000	Required	0.5256	6.007	1025.8	0.5479	12.409	1017.3	0.5425
8	0.000		0.4825	5.774	1002.0	0.5021	12.047	1005.1	0.4972
9	0.000		0.4472	5.568	981.4	0.4636	11.762	997.7	0.4586
10	0.000		0.4176	5.417	966.7	0.4310	11.566	993.6	0.4258
11	0.000		0.3923	5.323	957.6	0.4030	11.456	992.1	0.3975
12	0.000		0.3702	5.260	951.6	0.3787	11.395	992.3	0.3729
13	0.000		0.3510	5.184	944.3	0.3574	11.323	992.7	0.3513
14	0.000		0.3341	5.084	934.9	0.3388	11.206	991.1	0.3322
15	0.000		0.3193	4.961	923.5	0.3224	11.055	988.5	0.3154
16	0.000		0.3062	4.820	910.6	0.3079	10.877	985.1	0.3004
17	0.000		0.2949	4.662	896.3	0.2951	10.654	979.2	0.2870
18	0.000		0.2853	4.483	880.4	0.2838	10.373	969.9	0.2751
19	0.000		0.2769	4.268	861.8	0.2740	9.979	953.9	0.2645
20	0.000		0.2696	3.999	839.0	0.2653	9.399	926.8	0.2552
21	0.000		0.2635	3.620	808.0	0.2578	8.510	884.1	0.2472
22	0.000		0.2585	3.022	761.4	0.2515	7.114	821.5	0.2401
23	0.000		0.2547	2.260	706.0	0.2467	5.326	747.6	0.2347
24	0.000		0.2527	0.853	613.4	0.2437	2.036	628.5	0.2314

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.513	620.8	0.7396	5.073	635.7	0.7396	5.760	604.1	0.7396
2	12.548	808.2	0.7396	17.748	847.7	0.7396	19.981	715.5	0.7396
3	17.040	913.4	0.7396	23.429	929.2	0.7396	26.208	758.6	0.7396
4	19.268	917.6	0.7213	26.061	894.6	0.7240	29.160	750.7	0.7260
5	20.149	963.2	0.6694	27.034	900.2	0.6734	30.390	768.6	0.6795
6	20.432	1000.0	0.6145	27.371	903.6	0.6190	30.946	784.3	0.6293
7	20.257	1015.6	0.5623	27.249	906.9	0.5673	31.009	797.8	0.5811
8	19.912	1016.9	0.5156	26.976	911.3	0.5204	30.871	807.8	0.5370
9	19.535	1009.8	0.4750	26.696	917.4	0.4792	30.665	813.3	0.4972
10	19.201	999.3	0.4402	26.470	924.2	0.4433	30.456	814.6	0.4620
11	18.952	988.8	0.4103	26.307	929.6	0.4119	30.263	812.4	0.4305
12	18.781	980.6	0.3844	26.205	934.0	0.3843	30.092	807.2	0.4025
13	18.619	974.0	0.3617	26.109	938.3	0.3601	29.915	801.2	0.3779
14	18.380	965.1	0.3417	25.943	943.0	0.3386	29.766	802.5	0.3566
15	18.067	953.3	0.3241	25.734	949.7	0.3195	29.883	827.0	0.3399
16	17.693	939.3	0.3084	25.489	958.1	0.3026	29.639	827.0	0.3226
17	17.244	923.5	0.2947	25.075	960.4	0.2872	29.078	815.9	0.3061
18	16.703	905.6	0.2824	24.503	958.4	0.2736	28.344	803.8	0.2914
19	15.994	884.4	0.2716	23.683	951.1	0.2614	27.360	791.7	0.2784
20	15.005	857.7	0.2621	22.427	933.9	0.2506	25.909	777.6	0.2672
21	13.559	822.6	0.2539	20.465	901.5	0.2413	23.667	757.8	0.2575
22	11.359	774.6	0.2470	17.379	848.7	0.2335	20.144	727.9	0.2496
23	8.481	714.1	0.2415	13.167	775.2	0.2274	15.304	686.9	0.2435
24	3.285	618.9	0.2385	5.165	640.6	0.2240	5.955	606.1	0.2390

Table 4-14. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B2

	Assembly Number B2								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.763	597.9	0.7396	7.097	586.5	0.7396	7.350	583.3	0.7396
2	22.987	681.5	0.7396	23.941	640.1	0.7396	24.646	628.6	0.7396
3	29.768	706.2	0.7396	30.877	654.0	0.7396	31.690	639.8	0.7396
4	32.957	694.3	0.7289	34.132	647.0	0.7298	34.990	634.1	0.7305
5	34.362	701.0	0.6872	35.590	651.1	0.6895	36.485	637.4	0.6911
6	35.109	708.4	0.6423	36.398	655.7	0.6462	37.335	641.1	0.6488
7	35.409	717.6	0.5994	36.775	661.7	0.6050	37.764	645.7	0.6088
8	35.543	728.4	0.5601	36.999	668.7	0.5675	38.048	651.0	0.5725
9	35.624	739.9	0.5247	37.177	676.4	0.5339	38.291	656.9	0.5402
10	35.698	751.4	0.4928	37.344	683.8	0.5037	38.526	663.0	0.5112
11	35.767	762.3	0.4639	37.498	690.6	0.4762	38.747	669.2	0.4849
12	35.817	771.5	0.4376	37.619	696.4	0.4509	38.930	674.9	0.4605
13	35.825	779.4	0.4136	37.685	701.1	0.4276	39.051	680.0	0.4380
14	35.911	789.4	0.3927	37.807	704.1	0.4070	39.216	684.0	0.4180
15	36.471	808.8	0.3764	38.364	703.8	0.3903	39.788	685.4	0.4012
16	36.382	815.7	0.3583	38.286	704.7	0.3722	39.736	687.9	0.3833
17	35.825	815.9	0.3409	37.736	705.3	0.3547	39.211	690.2	0.3661
18	35.037	813.5	0.3251	36.933	704.1	0.3389	38.416	691.0	0.3504
19	33.933	808.1	0.3111	35.785	700.5	0.3247	37.252	689.5	0.3363
20	32.257	798.3	0.2990	34.027	693.8	0.3123	35.448	685.2	0.3238
21	29.612	780.9	0.2886	31.252	683.3	0.3018	32.584	676.8	0.3133
22	25.373	750.9	0.2803	26.797	666.2	0.2934	27.968	662.0	0.3047
23	19.400	705.8	0.2739	20.492	640.7	0.2867	21.398	638.3	0.2981
24	7.495	613.2	0.2682	7.886	589.4	0.2801	8.210	588.6	0.2905

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.368	579.8	0.7396	7.552	579.9	0.7396	7.701	574.6	0.7396
2	24.698	620.5	0.7396	25.210	618.4	0.7396	25.617	602.1	0.7396
3	31.752	632.8	0.7396	32.344	628.1	0.7396	32.809	608.5	0.7396
4	35.057	629.6	0.7305	35.682	623.7	0.7309	36.170	606.1	0.7312
5	36.557	634.8	0.6912	37.205	626.1	0.6922	37.713	607.9	0.6931
6	37.411	639.1	0.6490	38.083	628.5	0.6509	38.619	610.5	0.6522
7	37.843	642.2	0.6091	38.547	631.8	0.6116	39.118	613.7	0.6136
8	38.131	646.5	0.5729	38.871	635.5	0.5759	39.485	617.8	0.5787
9	38.377	649.7	0.5406	39.153	639.3	0.5441	39.813	622.1	0.5474
10	38.615	653.0	0.5116	39.425	642.8	0.5154	40.130	626.3	0.5193
11	38.837	654.1	0.4852	39.679	646.2	0.4892	40.426	630.3	0.4935
12	39.022	656.2	0.4609	39.889	648.8	0.4649	40.673	633.8	0.4695
13	39.144	657.3	0.4384	40.030	650.8	0.4424	40.846	636.9	0.4472
14	39.309	657.3	0.4184	40.204	651.8	0.4222	41.045	639.3	0.4270
15	39.878	654.1	0.4015	40.766	651.0	0.4051	41.618	640.3	0.4097
16	39.824	651.9	0.3836	40.711	650.9	0.3870	41.578	641.8	0.3916
17	39.298	650.8	0.3665	40.180	650.4	0.3698	41.062	643.2	0.3744
18	38.501	648.7	0.3507	39.371	649.1	0.3540	40.257	643.6	0.3586
19	37.334	645.4	0.3366	38.179	646.5	0.3398	39.058	642.9	0.3443
20	35.525	640.1	0.3241	36.328	642.1	0.3272	37.181	640.4	0.3316
21	32.655	633.8	0.3135	33.394	635.4	0.3166	34.193	635.2	0.3209
22	28.029	623.3	0.3050	28.670	625.3	0.3080	29.372	626.0	0.3123
23	21.445	608.9	0.2983	21.941	610.6	0.3013	22.488	611.5	0.3056
24	8.227	578.6	0.2908	8.411	579.7	0.2938	8.611	579.8	0.2979

Table 4-14. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B2

	Assembly Number B2					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.802	570.7	0.7396	7.851	568.2	0.7396
2	25.890	590.9	0.7396	26.022	583.8	0.7396
3	33.118	595.2	0.7396	33.265	586.6	0.7396
4	36.492	594.1	0.7314	36.644	586.3	0.7315
5	38.047	595.3	0.6936	38.204	587.1	0.6938
6	38.971	597.1	0.6531	39.136	588.4	0.6536
7	39.495	599.7	0.6149	39.673	590.5	0.6156
8	39.893	602.9	0.5804	40.088	593.3	0.5813
9	40.256	606.4	0.5496	40.472	596.7	0.5508
10	40.612	610.4	0.5220	40.851	600.5	0.5233
11	40.947	614.5	0.4968	41.212	604.7	0.4984
12	41.234	618.6	0.4732	41.526	609.2	0.4752
13	41.446	622.7	0.4513	41.766	613.8	0.4535
14	41.679	626.2	0.4314	42.027	618.5	0.4339
15	42.277	628.9	0.4141	42.648	622.4	0.4169
16	42.267	632.0	0.3962	42.666	627.1	0.3992
17	41.781	635.2	0.3791	42.207	631.7	0.3822
18	41.001	637.9	0.3634	41.450	635.6	0.3667
19	39.813	639.1	0.3491	40.280	638.7	0.3526
20	37.933	638.7	0.3365	38.407	639.9	0.3400
21	34.914	635.4	0.3257	35.378	638.2	0.3293
22	30.020	627.7	0.3172	30.442	631.0	0.3208
23	22.997	613.2	0.3104	23.333	616.5	0.3140
24	8.796	580.3	0.3024	8.917	581.3	0.3057

Table 4-15. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B3

	Assembly Number B3								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.817	617.1	0.7396	1.918	632.2	0.7396
2	0.000		0.7396	2.952	791.6	0.7396	6.911	858.3	0.7396
3	0.000		0.7396	4.235	915.5	0.7396	9.868	1021.5	0.7396
4	0.000		0.7396	5.148	1014.1	0.7396	11.577	1108.7	0.7288
5	0.000		0.6986	5.806	1005.2	0.6955	12.374	1033.1	0.6789
6	0.000	Data Not	0.6392	6.335	1060.3	0.6385	12.795	1022.8	0.6229
7	0.000	Required	0.5806	6.387	1065.9	0.5807	12.744	1013.0	0.5678
8	0.000		0.5285	6.212	1047.2	0.5282	12.580	1014.0	0.5180
9	0.000		0.4852	5.953	1020.2	0.4839	12.378	1019.5	0.4749
10	0.000		0.4494	5.683	992.8	0.4470	12.066	1015.5	0.4385
11	0.000		0.4197	5.432	968.1	0.4162	11.737	1008.1	0.4076
12	0.000		0.3948	5.208	946.6	0.3904	11.418	999.2	0.3815
13	0.000		0.3736	5.011	928.1	0.3684	11.120	989.9	0.3591
14	0.000		0.3555	4.837	912.1	0.3494	10.846	980.7	0.3396
15	0.000		0.3397	4.687	898.5	0.3329	10.597	971.7	0.3226
16	0.000		0.3260	4.558	887.0	0.3184	10.372	963.1	0.3076
17	0.000		0.3140	4.452	877.7	0.3055	10.160	953.7	0.2944
18	0.000		0.3033	4.354	869.2	0.2938	9.941	943.0	0.2825
19	0.000		0.2942	4.217	857.4	0.2833	9.642	929.0	0.2719
20	0.000		0.2864	3.962	835.9	0.2741	9.112	905.6	0.2624
21	0.000		0.2796	3.540	801.6	0.2661	8.182	864.1	0.2542
22	0.000		0.2742	2.912	753.2	0.2596	6.763	803.5	0.2475
23	0.000		0.2700	2.149	698.2	0.2546	4.995	732.6	0.2422
24	0.000		0.2676	0.811	610.8	0.2518	1.907	623.5	0.2391

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	2.617	596.0	0.7396	4.032	628.3	0.7396	4.760	606.8	0.7396
2	9.885	729.3	0.7396	15.064	846.4	0.7396	17.531	733.7	0.7396
3	13.974	804.2	0.7396	20.376	930.1	0.7396	23.525	789.1	0.7396
4	16.399	808.8	0.7380	23.170	893.3	0.7367	26.730	783.2	0.7373
5	17.667	837.8	0.6985	24.352	888.0	0.6973	28.227	806.3	0.7009
6	18.452	860.9	0.6514	24.988	879.1	0.6506	29.112	825.1	0.6573
7	19.043	903.5	0.6036	25.547	877.2	0.6033	29.842	838.2	0.6126
8	19.948	979.3	0.5587	26.334	870.1	0.5579	30.714	844.8	0.5688
9	19.952	994.7	0.5124	26.454	877.0	0.5126	30.894	849.5	0.5249
10	19.511	985.0	0.4716	26.351	897.5	0.4724	30.798	850.0	0.4855
11	18.963	968.9	0.4369	25.983	908.6	0.4371	30.406	848.2	0.4506
12	18.402	951.3	0.4076	25.529	915.3	0.4066	29.904	844.4	0.4201
13	17.868	934.5	0.3828	25.079	920.5	0.3803	29.380	838.7	0.3936
14	17.376	919.3	0.3615	24.651	924.6	0.3573	28.848	830.6	0.3703
15	16.926	905.5	0.3430	24.241	927.1	0.3372	28.291	819.4	0.3497
16	16.500	891.9	0.3267	23.822	927.5	0.3192	27.681	805.1	0.3314
17	16.086	878.5	0.3122	23.371	925.2	0.3033	27.010	789.0	0.3149
18	15.652	864.4	0.2994	22.848	919.6	0.2891	26.279	774.0	0.3003
19	15.105	848.5	0.2883	22.142	909.6	0.2766	25.382	760.5	0.2875
20	14.289	830.5	0.2787	21.075	894.2	0.2660	24.106	746.0	0.2767
21	13.015	809.4	0.2713	19.390	869.5	0.2576	22.129	726.2	0.2679
22	10.980	773.0	0.2655	16.594	825.6	0.2508	18.910	698.4	0.2609
23	8.179	715.6	0.2604	12.550	758.8	0.2450	14.323	664.2	0.2551
24	3.142	618.2	0.2571	4.873	634.1	0.2413	5.516	597.7	0.2508

Table 4-15. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B3

	Assembly Number B3								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.051	609.4	0.7396	6.455	592.4	0.7396	6.772	589.6	0.7396
2	21.591	729.1	0.7396	22.780	661.3	0.7396	23.703	651.4	0.7396
3	28.459	770.7	0.7396	29.864	681.4	0.7396	30.959	669.8	0.7396
4	32.002	752.6	0.7380	33.498	671.9	0.7387	34.673	662.4	0.7392
5	33.657	759.2	0.7049	35.215	676.8	0.7070	36.447	667.6	0.7085
6	34.636	763.1	0.6651	36.256	681.7	0.6689	37.537	672.1	0.6716
7	35.453	766.7	0.6237	37.137	686.8	0.6293	38.464	676.4	0.6334
8	36.420	770.7	0.5827	38.171	692.2	0.5901	39.546	680.8	0.5955
9	36.772	778.0	0.5422	38.608	699.2	0.5512	40.041	686.3	0.5580
10	36.862	786.0	0.5055	38.778	705.7	0.5160	40.271	691.9	0.5240
11	36.668	794.5	0.4729	38.662	712.2	0.4847	40.215	697.7	0.4936
12	36.345	802.3	0.4443	38.410	718.1	0.4570	40.022	703.3	0.4667
13	35.963	808.6	0.4189	38.086	723.0	0.4322	39.751	708.4	0.4425
14	35.527	812.9	0.3963	37.692	726.6	0.4099	39.402	712.8	0.4206
15	35.015	814.9	0.3759	37.201	728.4	0.3895	38.943	715.9	0.4005
16	34.386	814.0	0.3573	36.571	728.3	0.3710	38.329	717.5	0.3819
17	33.632	810.3	0.3405	35.794	726.3	0.3539	37.546	716.9	0.3649
18	32.765	804.3	0.3254	34.882	722.5	0.3384	36.610	714.6	0.3492
19	31.670	795.6	0.3119	33.715	716.5	0.3246	35.395	709.9	0.3352
20	30.090	782.5	0.3002	32.025	707.3	0.3126	33.622	701.9	0.3228
21	27.613	761.4	0.2906	29.374	693.0	0.3025	30.836	689.0	0.3125
22	23.605	729.3	0.2827	25.098	671.6	0.2943	26.347	669.2	0.3040
23	17.929	687.1	0.2765	19.048	642.8	0.2878	19.989	641.4	0.2972
24	6.846	606.0	0.2713	7.243	589.9	0.2818	7.579	589.6	0.2907

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	6.788	577.5	0.7396	6.953	577.7	0.7396	7.088	573.1	0.7396
2	23.746	609.5	0.7396	24.209	612.5	0.7396	24.583	598.6	0.7396
3	31.011	620.5	0.7396	31.542	620.7	0.7396	31.965	603.9	0.7396
4	34.730	619.2	0.7392	35.281	616.2	0.7395	35.719	605.5	0.7396
5	36.508	623.3	0.7086	37.076	617.9	0.7093	37.527	602.6	0.7098
6	37.602	627.5	0.6718	38.189	619.8	0.6730	38.662	604.7	0.6740
7	38.533	631.7	0.6336	39.145	622.4	0.6355	39.645	607.2	0.6369
8	39.617	633.8	0.5958	40.257	625.2	0.5981	40.791	610.3	0.6001
9	40.116	638.0	0.5583	40.792	628.9	0.5612	41.366	614.0	0.5638
10	40.349	641.2	0.5243	41.061	632.6	0.5277	41.679	618.1	0.5309
11	40.297	645.4	0.4939	41.045	636.4	0.4977	41.707	622.3	0.5015
12	40.106	647.6	0.4670	40.887	639.8	0.4710	41.590	626.1	0.4753
13	39.836	648.7	0.4429	40.643	642.5	0.4470	41.384	629.7	0.4516
14	39.488	649.7	0.4210	40.315	644.6	0.4252	41.088	632.8	0.4300
15	39.029	649.7	0.4009	39.870	646.1	0.4051	40.672	635.5	0.4101
16	38.414	648.7	0.3824	39.263	646.9	0.3864	40.091	638.0	0.3916
17	37.631	648.7	0.3652	38.481	647.0	0.3693	39.329	639.9	0.3745
18	36.692	645.4	0.3496	37.535	646.3	0.3536	38.392	640.8	0.3588
19	35.475	643.3	0.3355	36.296	644.0	0.3394	37.151	640.6	0.3446
20	33.698	639.1	0.3232	34.482	640.1	0.3270	35.315	638.5	0.3321
21	30.906	632.7	0.3128	31.631	634.0	0.3166	32.415	633.8	0.3215
22	26.407	622.3	0.3043	27.038	624.3	0.3080	27.730	625.1	0.3130
23	20.035	607.9	0.2976	20.523	609.8	0.3012	21.061	610.7	0.3063
24	7.595	577.6	0.2910	7.772	579.0	0.2945	7.964	579.0	0.2993

Table 4-15. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B3

	Assembly Number B3					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.181	569.8	0.7396	7.226	567.4	0.7396
2	24.836	588.6	0.7396	24.956	581.5	0.7396
3	32.248	592.1	0.7396	32.382	584.1	0.7396
4	36.009	593.0	0.7396	36.146	584.7	0.7396
5	37.826	591.8	0.7101	37.965	584.2	0.7104
6	38.974	593.1	0.6746	39.120	585.3	0.6749
7	39.977	595.1	0.6379	40.134	587.1	0.6384
8	41.147	597.6	0.6014	41.317	589.2	0.6021
9	41.753	600.7	0.5656	41.941	592.1	0.5664
10	42.100	604.2	0.5331	42.309	595.6	0.5342
11	42.166	608.1	0.5042	42.399	599.5	0.5055
12	42.089	612.2	0.4785	42.348	603.8	0.4802
13	41.924	616.4	0.4553	42.210	608.2	0.4573
14	41.667	620.5	0.4342	41.982	613.0	0.4365
15	41.289	624.5	0.4146	41.634	618.0	0.4173
16	40.745	628.4	0.3964	41.119	622.9	0.3994
17	40.016	631.8	0.3796	40.420	628.0	0.3829
18	39.107	634.8	0.3641	39.537	632.4	0.3676
19	37.882	636.5	0.3500	38.331	635.6	0.3537
20	36.045	636.4	0.3375	36.505	637.5	0.3414
21	33.120	633.7	0.3270	33.571	636.0	0.3310
22	28.364	626.2	0.3185	28.777	629.5	0.3225
23	21.559	612.1	0.3117	21.887	615.2	0.3157
24	8.141	579.5	0.3043	8.256	580.3	0.3080

Table 4-16. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B4

	Assembly Number B4								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.952	627.2	0.7396	2.090	634.7	0.7396
2	0.000		0.7396	3.400	833.0	0.7396	7.410	862.9	0.7396
3	0.000		0.7396	4.715	966.2	0.7396	10.219	1008.0	0.7396
4	0.000		0.7214	5.498	974.6	0.7305	11.635	992.5	0.7262
5	0.000		0.6599	5.968	1021.7	0.6800	12.183	999.7	0.6747
6	0.000	Data Not	0.5989	6.345	1061.4	0.6217	12.452	989.7	0.6189
7	0.000	Required	0.5420	6.303	1056.9	0.5644	12.329	982.3	0.5648
8	0.000		0.4943	6.108	1036.3	0.5140	12.177	986.2	0.5165
9	0.000		0.4553	5.880	1012.7	0.4717	12.054	995.9	0.4749
10	0.000		0.4230	5.672	991.8	0.4363	11.867	997.8	0.4393
11	0.000		0.3959	5.500	974.8	0.4066	11.692	997.6	0.4088
12	0.000		0.3730	5.356	960.8	0.3812	11.528	995.7	0.3825
13	0.000		0.3531	5.225	948.2	0.3594	11.363	992.6	0.3597
14	0.000		0.3359	5.097	936.1	0.3404	11.188	988.2	0.3398
15	0.000		0.3208	4.966	923.9	0.3238	11.000	983.0	0.3223
16	0.000		0.3076	4.830	911.5	0.3093	10.794	976.6	0.3068
17	0.000		0.2961	4.684	898.3	0.2963	10.560	968.7	0.2932
18	0.000		0.2864	4.515	883.2	0.2849	10.273	958.1	0.2810
19	0.000		0.2778	4.302	864.7	0.2747	9.896	943.6	0.2701
20	0.000		0.2704	4.010	839.9	0.2659	9.344	921.2	0.2606
21	0.000		0.2641	3.592	805.7	0.2583	8.444	881.0	0.2522
22	0.000		0.2590	2.987	758.8	0.2522	7.073	821.0	0.2453
23	0.000		0.2552	2.236	704.3	0.2474	5.307	747.9	0.2399
24	0.000		0.2529	0.839	612.6	0.2445	2.018	628.3	0.2365

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.281	623.0	0.7396	4.426	614.6	0.7396	5.494	630.1	0.7396
2	11.721	818.5	0.7396	15.592	764.3	0.7396	19.163	825.2	0.7396
3	15.885	918.6	0.7396	20.561	813.9	0.7396	25.191	922.3	0.7396
4	17.952	904.7	0.7320	22.892	788.7	0.7368	28.173	918.3	0.7320
5	18.781	924.0	0.6860	23.824	794.2	0.6951	29.520	954.5	0.6906
6	19.143	930.5	0.6339	24.259	798.2	0.6469	30.203	976.8	0.6424
7	19.062	933.5	0.5831	24.286	804.0	0.5996	30.371	989.8	0.5946
8	18.868	930.5	0.5365	24.218	810.9	0.5555	30.352	994.3	0.5496
9	18.638	923.1	0.4954	24.129	818.7	0.5158	30.230	991.2	0.5093
10	18.311	913.4	0.4598	23.950	827.0	0.4807	29.939	980.9	0.4740
11	17.974	902.3	0.4290	23.747	834.6	0.4497	29.559	964.9	0.4430
12	17.640	890.9	0.4023	23.526	841.0	0.4220	29.134	946.7	0.4156
13	17.312	880.0	0.3791	23.288	846.2	0.3973	28.672	927.2	0.3914
14	16.985	870.0	0.3589	23.031	850.2	0.3753	28.182	907.3	0.3699
15	16.659	861.1	0.3410	22.751	852.9	0.3554	27.657	886.9	0.3508
16	16.324	852.8	0.3252	22.441	854.3	0.3377	27.080	865.3	0.3337
17	15.956	844.3	0.3113	22.071	854.2	0.3218	26.430	843.2	0.3185
18	15.515	834.6	0.2989	21.589	851.8	0.3075	25.711	824.9	0.3048
19	14.936	822.1	0.2878	20.920	846.6	0.2948	24.835	809.3	0.2926
20	14.092	804.3	0.2780	19.894	836.2	0.2836	23.580	792.4	0.2818
21	12.753	778.3	0.2695	18.200	816.3	0.2740	21.535	767.2	0.2725
22	10.696	739.5	0.2624	15.485	780.6	0.2661	18.308	731.8	0.2649
23	7.986	689.1	0.2567	11.684	725.0	0.2598	13.918	693.1	0.2587
24	3.024	607.5	0.2531	4.421	619.8	0.2555	5.256	608.7	0.2545

Table 4-16. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B4

	Assembly Number B4								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	7.411	635.0	0.7396	7.706	583.3	0.7396	7.929	580.4	0.7396
2	25.008	816.2	0.7396	25.817	627.2	0.7396	26.417	617.9	0.7396
3	32.300	883.3	0.7396	33.230	637.9	0.7396	33.915	626.6	0.7396
4	35.763	854.5	0.7279	36.742	632.2	0.7286	37.461	622.0	0.7291
5	37.267	861.9	0.6879	38.290	635.5	0.6897	39.041	624.8	0.6909
6	38.017	865.0	0.6419	39.095	639.7	0.6450	39.884	628.1	0.6471
7	38.290	870.0	0.5962	39.439	645.0	0.6008	40.275	632.2	0.6039
8	38.436	878.0	0.5536	39.668	651.4	0.5597	40.559	637.0	0.5639
9	38.510	887.5	0.5152	39.835	658.5	0.5230	40.790	642.7	0.5283
10	38.408	896.7	0.4813	39.830	666.1	0.4908	40.850	648.4	0.4972
11	38.195	905.0	0.4511	39.711	673.4	0.4623	40.799	654.5	0.4699
12	37.915	912.3	0.4243	39.521	680.6	0.4369	40.678	660.8	0.4456
13	37.562	917.8	0.4002	39.245	686.7	0.4140	40.469	666.9	0.4239
14	37.136	921.0	0.3786	38.883	691.9	0.3933	40.169	672.6	0.4042
15	36.618	921.4	0.3592	38.415	696.0	0.3746	39.754	677.5	0.3863
16	35.966	917.6	0.3418	37.799	698.9	0.3577	39.183	681.7	0.3700
17	35.157	909.6	0.3261	37.008	700.4	0.3423	38.423	684.6	0.3550
18	34.219	898.7	0.3119	36.061	699.6	0.3282	37.490	685.9	0.3411
19	33.045	884.1	0.2992	34.848	696.5	0.3151	36.267	685.0	0.3283
20	31.348	862.9	0.2879	33.077	690.5	0.3035	34.456	681.2	0.3166
21	28.587	829.6	0.2780	30.195	680.7	0.2936	31.495	673.9	0.3069
22	24.272	781.7	0.2700	25.673	664.4	0.2855	26.824	660.2	0.2989
23	18.523	725.7	0.2635	19.592	639.0	0.2788	20.479	636.7	0.2920
24	7.023	620.9	0.2594	7.400	588.4	0.2735	7.713	587.7	0.2858

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.937	568.2	0.7396	8.034	570.0	0.7396	8.118	567.8	0.7396
2	26.438	583.3	0.7396	26.705	589.5	0.7396	26.929	582.5	0.7396
3	33.942	590.4	0.7396	34.249	594.1	0.7396	34.503	585.7	0.7396
4	37.492	592.7	0.7291	37.817	593.6	0.7293	38.083	585.8	0.7295
5	39.075	595.7	0.6909	39.415	595.1	0.6915	39.692	586.8	0.6920
6	39.922	599.7	0.6472	40.278	596.7	0.6482	40.572	588.3	0.6490
7	40.316	602.8	0.6041	40.694	598.9	0.6055	41.009	590.2	0.6066
8	40.604	606.8	0.5641	41.007	601.3	0.5659	41.348	592.6	0.5675
9	40.837	608.9	0.5285	41.268	604.1	0.5309	41.637	595.1	0.5328
10	40.900	612.0	0.4975	41.360	607.0	0.5003	41.758	597.8	0.5027
11	40.852	615.0	0.4702	41.342	610.0	0.4736	41.769	600.4	0.4764
12	40.734	618.1	0.4461	41.252	612.9	0.4498	41.709	603.2	0.4531
13	40.527	620.2	0.4243	41.071	615.5	0.4285	41.557	605.9	0.4322
14	40.228	621.2	0.4047	40.792	617.5	0.4091	41.306	608.5	0.4132
15	39.815	623.3	0.3867	40.395	619.1	0.3914	40.934	610.8	0.3959
16	39.243	622.3	0.3704	39.836	620.4	0.3752	40.399	613.0	0.3801
17	38.483	622.3	0.3555	39.084	621.3	0.3603	39.668	615.0	0.3655
18	37.550	622.3	0.3416	38.151	621.3	0.3464	38.751	616.4	0.3518
19	36.325	620.2	0.3287	36.918	620.4	0.3336	37.524	617.0	0.3391
20	34.511	617.1	0.3171	35.084	618.4	0.3219	35.684	616.4	0.3275
21	31.547	614.0	0.3073	32.085	614.9	0.3121	32.658	613.9	0.3178
22	26.869	606.8	0.2994	27.341	608.2	0.3042	27.855	608.5	0.3101
23	20.513	595.7	0.2924	20.877	597.5	0.2972	21.277	598.0	0.3031
24	7.725	573.6	0.2862	7.851	574.0	0.2905	7.987	573.9	0.2959

Table 4-16. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B4

	Assembly Number B4					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.176	565.8	0.7396	8.203	564.1	0.7396
2	27.082	576.8	0.7396	27.154	572.5	0.7396
3	34.675	579.0	0.7396	34.756	574.1	0.7396
4	38.262	579.7	0.7297	38.346	575.2	0.7297
5	39.878	580.4	0.6923	39.965	575.7	0.6924
6	40.768	581.4	0.6495	40.860	576.5	0.6497
7	41.221	583.0	0.6074	41.320	577.7	0.6077
8	41.578	584.8	0.5685	41.688	579.5	0.5690
9	41.889	587.0	0.5342	42.011	581.4	0.5348
10	42.033	589.4	0.5043	42.169	583.7	0.5051
11	42.069	591.9	0.4783	42.220	586.1	0.4793
12	42.034	594.4	0.4554	42.201	588.7	0.4565
13	41.908	597.0	0.4349	42.092	591.5	0.4362
14	41.683	599.7	0.4163	41.886	594.6	0.4179
15	41.338	602.4	0.3994	41.560	597.7	0.4012
16	40.831	605.3	0.3840	41.072	600.8	0.3861
17	40.127	608.1	0.3698	40.390	604.4	0.3722
18	39.235	610.6	0.3566	39.518	607.7	0.3594
19	38.026	612.5	0.3442	38.327	610.7	0.3473
20	36.193	613.2	0.3329	36.506	612.7	0.3363
21	33.159	612.4	0.3234	33.474	613.0	0.3271
22	28.313	608.0	0.3159	28.606	609.4	0.3199
23	21.638	598.1	0.3090	21.872	599.7	0.3130
24	8.110	574.0	0.3012	8.190	574.6	0.3048

Table 4-17. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B5

	Assembly Number B5								
	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.947	626.8	0.7396	2.086	634.8	0.7396
2	0.000		0.7396	3.383	831.4	0.7396	7.401	863.6	0.7396
3	0.000		0.7396	4.697	964.3	0.7396	10.237	1011.7	0.7396
4	0.000		0.7240	5.444	969.3	0.7331	11.617	995.8	0.7279
5	0.000		0.6652	5.773	1001.9	0.6856	12.015	1002.2	0.6780
6	0.000	Data Not	0.6081	5.863	1011.0	0.6313	11.980	990.6	0.6243
7	0.000	Required	0.5555	5.770	1001.6	0.5788	11.746	977.7	0.5729
8	0.000		0.5107	5.587	983.3	0.5317	11.483	970.5	0.5268
9	0.000		0.4733	5.387	963.8	0.4912	11.254	967.9	0.4867
10	0.000		0.4418	5.205	946.3	0.4568	11.072	967.9	0.4522
11	0.000		0.4152	5.050	931.7	0.4274	10.937	969.7	0.4223
12	0.000		0.3924	4.916	919.3	0.4020	10.783	967.9	0.3961
13	0.000		0.3725	4.794	908.2	0.3801	10.619	964.1	0.3734
14	0.000		0.3551	4.673	897.3	0.3608	10.444	959.3	0.3534
15	0.000		0.3398	4.552	886.5	0.3438	10.255	953.2	0.3358
16	0.000		0.3264	4.426	875.4	0.3288	10.049	946.2	0.3201
17	0.000		0.3146	4.290	863.7	0.3156	9.817	937.8	0.3063
18	0.000		0.3041	4.133	850.3	0.3037	9.536	927.1	0.2938
19	0.000		0.2951	3.934	833.6	0.2933	9.170	912.9	0.2827
20	0.000		0.2875	3.665	811.6	0.2842	8.649	891.9	0.2729
21	0.000		0.2811	3.305	783.1	0.2764	7.873	858.3	0.2644
22	0.000		0.2759	2.794	744.4	0.2699	6.690	806.8	0.2574
23	0.000		0.2719	2.101	694.9	0.2649	5.057	740.1	0.2519
24	0.000		0.2696	0.806	610.5	0.2618	1.958	626.7	0.2485

	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.587	640.5	0.7396	5.040	630.2	0.7396	5.572	593.7	0.7396
2	12.820	899.6	0.7396	17.674	825.3	0.7396	19.452	681.1	0.7396
3	17.431	1044.8	0.7396	23.357	896.7	0.7396	25.656	720.6	0.7396
4	19.631	1028.4	0.7220	25.928	864.9	0.7255	28.629	723.6	0.7280
5	20.330	1052.2	0.6695	26.766	873.1	0.6755	29.919	754.4	0.6827
6	20.348	1056.5	0.6144	26.893	879.6	0.6223	30.717	802.5	0.6350
7	20.008	1048.0	0.5621	26.677	887.1	0.5714	31.268	861.4	0.5891
8	19.545	1032.2	0.5159	26.349	895.3	0.5259	31.290	889.8	0.5453
9	19.071	1013.2	0.4763	26.003	903.1	0.4859	31.053	898.9	0.5053
10	18.626	993.2	0.4424	25.672	910.2	0.4510	30.772	903.0	0.4696
11	18.225	973.4	0.4134	25.362	915.9	0.4203	30.379	896.1	0.4377
12	17.822	955.3	0.3883	25.031	920.4	0.3934	29.883	882.5	0.4094
13	17.432	939.1	0.3665	24.696	923.9	0.3696	29.347	866.2	0.3843
14	17.057	925.1	0.3475	24.364	926.6	0.3485	28.797	848.9	0.3623
15	16.703	913.6	0.3307	24.045	928.8	0.3297	28.256	831.7	0.3426
16	16.395	906.7	0.3158	23.772	931.0	0.3129	27.842	821.0	0.3256
17	16.102	902.5	0.3026	23.498	932.2	0.2976	27.702	831.2	0.3115
18	15.637	890.1	0.2907	22.970	928.2	0.2841	27.101	825.6	0.2976
19	14.993	871.7	0.2801	22.178	918.9	0.2719	26.236	820.0	0.2855
20	14.070	845.8	0.2706	20.969	901.1	0.2612	24.934	813.0	0.2749
21	12.714	809.9	0.2624	19.106	870.5	0.2519	22.748	789.2	0.2652
22	10.694	760.8	0.2558	16.226	821.0	0.2442	19.339	751.6	0.2571
23	7.992	702.4	0.2505	12.238	752.4	0.2383	14.656	705.0	0.2512
24	3.095	613.6	0.2474	4.758	631.2	0.2347	5.661	612.6	0.2468

Table 4-17. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B5

	Assembly Number B5								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.883	610.2	0.7396	7.084	575.5	0.7396	7.235	573.5	0.7396
2	23.408	724.3	0.7396	23.970	605.8	0.7396	24.388	599.6	0.7396
3	30.431	763.0	0.7396	31.079	613.2	0.7396	31.559	605.8	0.7396
4	33.853	750.7	0.7303	34.532	610.1	0.7308	35.037	603.8	0.7312
5	35.535	766.9	0.6898	36.237	611.8	0.6910	36.759	605.2	0.6919
6	36.837	788.4	0.6466	37.560	613.3	0.6486	38.099	606.6	0.6501
7	37.891	810.4	0.6038	38.642	615.4	0.6067	39.200	608.3	0.6088
8	38.246	825.3	0.5622	39.045	618.9	0.5661	39.637	611.1	0.5689
9	38.296	838.4	0.5239	39.157	623.5	0.5289	39.789	614.6	0.5325
10	38.306	851.8	0.4897	39.232	628.3	0.4958	39.909	618.4	0.5001
11	38.182	864.5	0.4587	39.179	633.6	0.4662	39.906	622.7	0.4713
12	37.908	875.1	0.4309	38.978	639.1	0.4397	39.758	627.3	0.4458
13	37.550	883.7	0.4061	38.694	644.7	0.4162	39.527	631.9	0.4232
14	37.141	890.6	0.3838	38.355	650.0	0.3953	39.242	636.7	0.4033
15	36.731	897.0	0.3640	38.006	654.7	0.3768	38.945	641.2	0.3857
16	36.295	896.0	0.3459	37.620	658.5	0.3598	38.605	645.3	0.3696
17	36.010	888.8	0.3303	37.362	660.6	0.3447	38.380	648.3	0.3553
18	35.401	888.4	0.3161	36.763	661.4	0.3310	37.803	650.2	0.3421
19	34.544	888.8	0.3038	35.893	660.4	0.3187	36.937	650.6	0.3303
20	32.908	872.7	0.2921	34.224	657.8	0.3073	35.257	649.6	0.3194
21	30.164	846.3	0.2818	31.409	652.4	0.2973	32.400	645.9	0.3098
22	25.782	802.4	0.2731	26.884	641.5	0.2890	27.775	637.0	0.3019
23	19.664	741.9	0.2666	20.514	622.7	0.2825	21.210	620.0	0.2956
24	7.618	627.5	0.2619	7.910	582.4	0.2759	8.148	581.4	0.2877

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.248	574.0	0.7396	7.414	577.8	0.7396	7.549	573.1	0.7396
2	24.426	603.5	0.7396	24.887	612.3	0.7396	25.258	598.2	0.7396
3	31.605	613.1	0.7396	32.139	621.0	0.7396	32.563	604.0	0.7396
4	35.088	613.0	0.7312	35.651	617.4	0.7316	36.096	602.1	0.7319
5	36.815	618.1	0.6921	37.399	619.5	0.6930	37.861	603.7	0.6938
6	38.158	621.2	0.6503	38.760	621.4	0.6519	39.242	605.5	0.6531
7	39.264	626.4	0.6090	39.889	623.7	0.6112	40.396	607.8	0.6130
8	39.705	630.6	0.5692	40.367	627.5	0.5721	40.911	611.2	0.5744
9	39.864	638.0	0.5328	40.567	631.7	0.5363	41.153	615.1	0.5393
10	39.989	643.3	0.5006	40.729	635.5	0.5045	41.358	619.2	0.5081
11	39.991	648.7	0.4718	40.767	639.3	0.4760	41.438	623.1	0.4802
12	39.846	651.9	0.4463	40.652	642.4	0.4507	41.364	627.0	0.4553
13	39.618	655.1	0.4237	40.447	644.8	0.4282	41.197	630.6	0.4331
14	39.334	656.2	0.4037	40.179	646.5	0.4082	40.963	633.8	0.4134
15	39.036	655.1	0.3862	39.888	647.2	0.3905	40.703	636.8	0.3959
16	38.694	653.0	0.3701	39.546	647.2	0.3743	40.386	639.2	0.3796
17	38.466	649.7	0.3556	39.306	646.0	0.3597	40.160	640.5	0.3649
18	37.886	646.5	0.3425	38.705	643.8	0.3463	39.563	640.9	0.3515
19	37.016	642.2	0.3307	37.801	640.2	0.3343	38.647	639.8	0.3393
20	35.330	635.9	0.3196	36.072	635.7	0.3231	36.890	637.1	0.3279
21	32.466	628.5	0.3101	33.145	629.2	0.3135	33.911	632.1	0.3182
22	27.832	619.2	0.3023	28.419	619.8	0.3055	29.093	623.4	0.3102
23	21.253	604.8	0.2959	21.706	606.3	0.2991	22.230	609.4	0.3038
24	8.164	577.6	0.2879	8.330	577.9	0.2911	8.521	578.9	0.2955

Table 4-17. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly B5

	Assembly Number B5					
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.648	570.5	0.7396	7.696	568.0	0.7396
2	25.525	590.2	0.7396	25.655	583.4	0.7396
3	32.866	594.5	0.7396	33.012	586.4	0.7396
4	36.412	593.5	0.7321	36.563	586.1	0.7321
5	38.189	594.7	0.6943	38.344	586.8	0.6945
6	39.584	596.1	0.6540	39.745	587.7	0.6544
7	40.756	598.0	0.6142	40.928	589.5	0.6148
8	41.300	600.9	0.5761	41.487	592.0	0.5769
9	41.576	604.4	0.5414	41.783	595.2	0.5425
10	41.817	608.1	0.5107	42.045	598.7	0.5120
11	41.936	612.1	0.4833	42.187	602.4	0.4849
12	41.901	616.1	0.4590	42.178	606.7	0.4609
13	41.772	620.1	0.4373	42.075	611.0	0.4395
14	41.575	623.9	0.4179	41.905	615.5	0.4205
15	41.346	627.2	0.4006	41.703	620.0	0.4035
16	41.058	630.2	0.3845	41.440	624.2	0.3876
17	40.852	632.4	0.3698	41.256	628.0	0.3732
18	40.268	633.7	0.3564	40.691	631.2	0.3597
19	39.354	634.0	0.3441	39.788	633.0	0.3475
20	37.587	632.9	0.3328	38.024	633.6	0.3362
21	34.576	629.5	0.3230	35.002	631.7	0.3265
22	29.688	622.2	0.3150	30.076	625.2	0.3186
23	22.698	609.0	0.3085	23.005	611.7	0.3121
24	8.689	578.6	0.3000	8.800	579.6	0.3033

Table 4-18. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C1

	Assembly Number C1								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.952	611.0	0.7396	2.884	657.5	0.7396
2	0.000		0.7396	3.310	755.8	0.7396	10.308	985.6	0.7396
3	0.000		0.7396	4.842	864.6	0.7396	14.221	1185.7	0.7396
4	0.000		0.7396	6.029	958.4	0.7396	16.054	1245.8	0.7120
5	0.000		0.7396	6.866	1030.0	0.7129	16.637	1114.9	0.6620
6	0.000	Data Not	0.7203	7.417	995.7	0.6687	16.684	1075.9	0.6114
7	0.000	Required	0.6798	7.761	1022.6	0.6205	16.564	1041.2	0.5637
8	0.000		0.6416	7.945	1037.3	0.5734	16.421	1017.5	0.5199
9	0.000		0.6049	7.967	1039.1	0.5288	16.277	1005.6	0.4795
10	0.000		0.5706	7.869	1031.2	0.4886	16.141	1002.9	0.4430
11	0.000		0.5397	7.646	1013.5	0.4539	15.930	1003.8	0.4111
12	0.000		0.5116	7.375	992.4	0.4244	15.696	1006.4	0.3835
13	0.000		0.4860	7.105	971.9	0.3994	15.474	1009.8	0.3595
14	0.000		0.4620	6.851	953.0	0.3781	15.270	1013.4	0.3386
15	0.000		0.4397	6.618	936.1	0.3598	15.075	1016.1	0.3201
16	0.000		0.4188	6.410	921.2	0.3438	14.860	1015.6	0.3038
17	0.000		0.3997	6.233	908.7	0.3300	14.618	1011.0	0.2894
18	0.000		0.3827	6.060	896.7	0.3176	14.304	1001.0	0.2766
19	0.000		0.3678	5.793	878.5	0.3064	13.793	984.0	0.2650
20	0.000		0.3548	5.386	851.5	0.2966	12.957	954.8	0.2548
21	0.000		0.3439	4.795	813.8	0.2881	11.656	908.5	0.2458
22	0.000		0.3353	3.959	763.4	0.2810	9.692	839.8	0.2382
23	0.000		0.3287	2.939	706.2	0.2755	7.169	756.6	0.2326
24	0.000		0.3250	1.351	625.1	0.2722	3.276	644.6	0.2292

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.848	624.5	0.7396	5.942	644.4	0.7396	6.767	630.3	0.7396
2	13.863	830.9	0.7396	20.783	881.6	0.7396	23.262	794.7	0.7396
3	18.954	942.9	0.7396	27.492	976.8	0.7396	30.435	846.9	0.7396
4	21.578	950.5	0.7113	30.700	940.4	0.7083	33.830	820.2	0.7103
5	22.719	1002.4	0.6636	31.966	947.0	0.6622	35.215	831.9	0.6664
6	23.159	1040.9	0.6136	32.401	946.8	0.6137	35.750	842.0	0.6199
7	23.288	1066.0	0.5650	32.554	948.1	0.5668	35.991	850.9	0.5747
8	23.276	1079.5	0.5197	32.653	954.0	0.5235	36.171	859.2	0.5325
9	23.150	1081.4	0.4781	32.701	963.5	0.4842	36.289	866.4	0.4938
10	22.928	1072.5	0.4411	32.662	973.5	0.4492	36.304	872.1	0.4591
11	22.560	1056.5	0.4089	32.465	983.0	0.4186	36.141	875.6	0.4283
12	22.131	1036.9	0.3813	32.172	990.6	0.3919	35.866	877.5	0.4015
13	21.698	1016.2	0.3574	31.834	995.9	0.3684	35.533	878.1	0.3778
14	21.259	993.6	0.3367	31.443	998.6	0.3478	35.136	877.4	0.3568
15	20.781	967.1	0.3185	30.954	998.0	0.3295	34.629	875.5	0.3382
16	20.212	935.0	0.3026	30.291	992.7	0.3133	33.930	871.8	0.3217
17	19.573	900.4	0.2886	29.451	981.5	0.2988	33.028	865.3	0.3069
18	18.909	871.0	0.2761	28.504	965.9	0.2858	31.984	855.3	0.2936
19	18.101	846.9	0.2650	27.314	945.2	0.2739	30.650	840.6	0.2815
20	16.962	823.0	0.2552	25.628	916.5	0.2634	28.752	819.6	0.2708
21	15.235	790.6	0.2465	23.042	873.2	0.2543	25.849	789.1	0.2614
22	12.673	747.2	0.2394	19.213	813.3	0.2467	21.550	746.0	0.2537
23	9.453	699.7	0.2339	14.446	745.9	0.2409	16.176	693.7	0.2477
24	4.087	608.3	0.2304	5.904	624.1	0.2365	6.534	607.6	0.2427

Table 4-18. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C1

	Assembly Number C1								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.368	619.4	0.7396	7.411	610.7	0.7396	7.954	623.6	0.7396
2	25.009	748.4	0.7396	25.130	713.7	0.7396	26.647	753.9	0.7396
3	32.510	789.2	0.7396	32.659	753.9	0.7396	34.498	801.7	0.7396
4	36.072	772.0	0.7125	36.241	749.8	0.7126	38.282	790.5	0.7142
5	37.584	785.8	0.6705	37.770	771.5	0.6708	39.969	811.4	0.6738
6	38.232	798.4	0.6258	38.435	793.9	0.6263	40.768	829.6	0.6306
7	38.574	809.7	0.5820	38.794	817.0	0.5827	41.247	846.3	0.5879
8	38.845	820.1	0.5410	39.083	842.1	0.5418	41.646	861.9	0.5476
9	39.040	829.0	0.5030	39.298	871.1	0.5039	41.954	875.3	0.5100
10	39.117	836.3	0.4686	39.390	893.5	0.4695	42.105	883.9	0.4755
11	39.007	842.5	0.4380	39.289	907.2	0.4388	42.028	887.4	0.4446
12	38.774	847.5	0.4109	39.058	910.3	0.4117	41.799	887.7	0.4172
13	38.474	851.4	0.3870	38.756	907.2	0.3877	41.477	884.8	0.3929
14	38.102	854.4	0.3658	38.378	898.0	0.3665	41.061	879.2	0.3713
15	37.610	856.2	0.3469	37.877	884.4	0.3476	40.505	871.2	0.3521
16	36.908	855.8	0.3301	37.165	869.6	0.3307	39.721	860.9	0.3350
17	35.977	852.4	0.3151	36.223	853.6	0.3156	38.681	847.0	0.3197
18	34.871	845.0	0.3015	35.101	830.9	0.3020	37.427	828.7	0.3059
19	33.430	832.4	0.2891	33.641	804.7	0.2896	35.786	804.2	0.2932
20	31.367	813.4	0.2781	31.554	772.8	0.2785	33.469	774.2	0.2820
21	28.214	785.4	0.2685	28.374	738.5	0.2690	30.012	739.6	0.2723
22	23.536	744.8	0.2607	23.665	700.9	0.2611	24.983	701.5	0.2643
23	17.653	693.6	0.2545	17.750	664.1	0.2549	18.739	664.3	0.2582
24	7.077	608.0	0.2490	7.113	598.6	0.2493	7.481	598.7	0.2525

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.545	623.9	0.7396	9.135	631.3	0.7396	9.495	629.9	0.7396
2	28.287	753.4	0.7396	29.909	775.2	0.7396	30.870	763.8	0.7396
3	36.523	806.2	0.7396	38.530	835.6	0.7396	39.691	813.4	0.7396
4	40.581	801.1	0.7157	42.846	828.1	0.7166	44.113	796.9	0.7173
5	42.493	829.1	0.6767	44.921	851.3	0.6784	46.241	808.6	0.6797
6	43.471	852.1	0.6346	45.993	865.0	0.6371	47.350	816.8	0.6389
7	44.079	869.1	0.5928	46.661	873.9	0.5957	48.061	826.4	0.5980
8	44.577	882.3	0.5529	47.207	881.1	0.5561	48.658	838.0	0.5586
9	44.955	891.9	0.5152	47.633	888.3	0.5186	49.143	851.6	0.5214
10	45.138	896.3	0.4806	47.853	893.9	0.4839	49.420	865.0	0.4868
11	45.063	896.5	0.4494	47.807	898.4	0.4526	49.429	878.2	0.4556
12	44.818	894.3	0.4218	47.585	901.9	0.4248	49.258	890.5	0.4277
13	44.471	890.9	0.3972	47.251	903.9	0.4002	48.970	901.8	0.4029
14	44.021	886.3	0.3754	46.797	903.3	0.3782	48.553	911.0	0.3808
15	43.427	881.1	0.3561	46.179	899.6	0.3587	47.962	917.8	0.3611
16	42.586	873.5	0.3388	45.291	892.4	0.3412	47.090	921.9	0.3436
17	41.457	861.6	0.3232	44.085	880.8	0.3256	45.879	920.6	0.3277
18	40.065	843.6	0.3092	42.574	863.1	0.3114	44.331	911.3	0.3135
19	38.231	819.1	0.2964	40.567	838.1	0.2985	42.242	891.0	0.3004
20	35.660	788.0	0.2851	37.768	806.3	0.2870	39.308	858.7	0.2888
21	31.893	751.6	0.2752	33.712	767.8	0.2771	35.063	815.4	0.2788
22	26.498	710.8	0.2672	27.971	724.1	0.2690	29.074	762.1	0.2706
23	19.870	670.3	0.2611	20.970	679.7	0.2629	21.794	706.3	0.2645
24	7.907	601.2	0.2554	8.330	605.4	0.2573	8.650	615.1	0.2589

Table 4-19. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C2

	Assembly Number C2								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.035	615.7	0.7396	2.724	644.4	0.7396
2	0.000		0.7396	3.665	779.9	0.7396	9.715	915.0	0.7396
3	0.000		0.7396	5.256	896.3	0.7396	13.186	1060.0	0.7396
4	0.000		0.7396	6.359	986.0	0.7396	14.833	1105.7	0.7284
5	0.000		0.7229	7.056	968.2	0.7100	15.456	1012.0	0.6839
6	0.000	Data Not	0.6753	7.478	1000.4	0.6634	15.670	997.3	0.6345
7	0.000	Required	0.6306	7.725	1019.7	0.6140	15.738	984.8	0.5853
8	0.000		0.5883	7.830	1028.1	0.5661	15.731	977.1	0.5392
9	0.000		0.5506	7.777	1023.9	0.5220	15.656	975.6	0.4972
10	0.000		0.5179	7.632	1012.4	0.4830	15.553	978.5	0.4598
11	0.000		0.4894	7.467	999.5	0.4493	15.448	982.6	0.4269
12	0.000		0.4642	7.366	991.7	0.4198	15.431	988.5	0.3980
13	0.000		0.4415	7.350	990.5	0.3939	15.531	996.6	0.3722
14	0.000		0.4207	7.203	979.3	0.3716	15.462	1002.0	0.3497
15	0.000		0.4015	7.003	964.3	0.3524	15.323	1006.3	0.3301
16	0.000		0.3835	6.774	947.4	0.3359	15.112	1007.6	0.3126
17	0.000		0.3673	6.530	929.7	0.3216	14.845	1006.0	0.2972
18	0.000		0.3526	6.275	911.6	0.3090	14.506	1000.1	0.2835
19	0.000		0.3396	6.033	894.8	0.2981	14.058	985.7	0.2713
20	0.000		0.3283	5.757	876.0	0.2886	13.417	960.7	0.2606
21	0.000		0.3188	5.243	842.2	0.2800	12.284	920.0	0.2511
22	0.000		0.3112	4.435	791.7	0.2727	10.468	857.5	0.2432
23	0.000		0.3056	3.312	726.6	0.2670	7.887	774.9	0.2369
24	0.000		0.3023	1.517	633.2	0.2637	3.603	651.9	0.2332

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.625	620.0	0.7396	5.645	641.2	0.7396	6.364	620.8	0.7396
2	13.073	813.4	0.7396	19.791	870.4	0.7396	21.984	763.9	0.7396
3	17.689	920.0	0.7396	26.001	963.0	0.7396	28.625	810.7	0.7396
4	20.121	929.3	0.7250	29.016	928.4	0.7188	31.816	788.4	0.7207
5	21.341	983.8	0.6822	30.363	935.1	0.6768	33.267	798.3	0.6809
6	22.042	1030.7	0.6333	31.044	934.0	0.6296	34.035	806.6	0.6360
7	22.471	1067.0	0.5834	31.474	934.1	0.5822	34.545	814.4	0.5905
8	22.678	1089.1	0.5357	31.781	939.4	0.5374	34.934	822.4	0.5472
9	22.653	1094.4	0.4921	31.955	950.0	0.4967	35.187	830.2	0.5075
10	22.458	1084.7	0.4539	31.982	962.0	0.4608	35.275	836.3	0.4721
11	22.169	1065.7	0.4207	31.908	973.8	0.4293	35.243	840.5	0.4407
12	21.898	1040.1	0.3920	31.809	983.3	0.4016	35.165	842.7	0.4129
13	21.704	1011.2	0.3669	31.733	989.9	0.3770	35.093	843.1	0.3881
14	21.330	982.2	0.3452	31.444	994.7	0.3555	34.804	843.1	0.3663
15	20.864	952.0	0.3262	31.003	996.1	0.3365	34.353	842.1	0.3471
16	20.296	920.2	0.3096	30.374	992.6	0.3196	33.697	839.3	0.3299
17	19.659	888.4	0.2950	29.574	983.5	0.3045	32.847	834.3	0.3147
18	19.008	862.6	0.2820	28.673	969.7	0.2910	31.865	826.3	0.3007
19	18.301	841.7	0.2704	27.613	950.5	0.2787	30.678	813.8	0.2882
20	17.391	820.6	0.2602	26.179	922.8	0.2677	29.053	795.4	0.2768
21	15.870	791.1	0.2512	23.833	880.9	0.2581	26.421	768.7	0.2669
22	13.489	750.0	0.2437	20.212	821.7	0.2500	22.375	730.6	0.2587
23	10.219	702.9	0.2378	15.387	753.2	0.2439	16.993	683.5	0.2522
24	4.438	609.8	0.2341	6.353	627.6	0.2394	6.937	604.2	0.2469

Table 4-19. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C2

	Assembly Number C2								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.895	612.1	0.7396	6.939	611.9	0.7396	7.411	614.9	0.7396
2	23.554	727.1	0.7396	23.685	727.8	0.7396	25.063	734.0	0.7396
3	30.504	764.6	0.7396	30.667	774.8	0.7396	32.373	781.6	0.7396
4	33.847	749.5	0.7224	34.031	768.9	0.7225	35.939	773.3	0.7239
5	35.405	760.8	0.6845	35.605	789.9	0.6848	37.667	793.2	0.6874
6	36.264	770.6	0.6414	36.477	807.4	0.6419	38.663	809.7	0.6459
7	36.857	779.6	0.5976	37.082	823.9	0.5981	39.378	824.6	0.6033
8	37.324	788.1	0.5557	37.560	839.3	0.5563	39.961	839.0	0.5622
9	37.652	796.5	0.5169	37.898	853.6	0.5176	40.390	851.8	0.5240
10	37.803	803.5	0.4821	38.054	860.8	0.4828	40.600	859.4	0.4892
11	37.822	809.3	0.4511	38.075	863.8	0.4518	40.640	862.2	0.4579
12	37.784	813.8	0.4233	38.035	860.8	0.4239	40.594	861.3	0.4298
13	37.741	817.1	0.3983	37.989	856.5	0.3990	40.525	858.0	0.4045
14	37.479	820.2	0.3764	37.722	849.3	0.3769	40.233	854.5	0.3822
15	37.046	822.3	0.3569	37.286	845.0	0.3575	39.773	851.1	0.3625
16	36.393	822.6	0.3395	36.631	842.1	0.3401	39.099	848.4	0.3450
17	35.523	820.3	0.3240	35.762	843.6	0.3245	38.207	845.2	0.3293
18	34.491	814.6	0.3099	34.729	842.1	0.3104	37.126	838.5	0.3149
19	33.214	804.4	0.2969	33.443	829.5	0.2974	35.734	823.9	0.3019
20	31.442	788.0	0.2853	31.650	800.6	0.2858	33.750	798.2	0.2900
21	28.588	763.9	0.2752	28.767	762.5	0.2756	30.592	762.8	0.2796
22	24.200	728.3	0.2667	24.343	717.7	0.2671	25.816	719.7	0.2709
23	18.355	682.5	0.2600	18.462	675.4	0.2604	19.553	675.6	0.2640
24	7.436	604.2	0.2540	7.475	601.7	0.2543	7.877	602.2	0.2578

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.007	624.5	0.7396	8.657	639.0	0.7396	9.081	643.2	0.7396
2	26.780	763.7	0.7396	28.603	806.2	0.7396	29.747	809.1	0.7396
3	34.513	822.6	0.7396	36.741	872.1	0.7396	38.092	863.1	0.7396
4	38.358	815.9	0.7248	40.799	853.2	0.7248	42.229	833.2	0.7250
5	40.288	841.4	0.6894	42.838	869.2	0.6900	44.298	840.1	0.6905
6	41.432	860.7	0.6488	44.031	876.5	0.6500	45.508	844.0	0.6509
7	42.247	874.0	0.6069	44.863	879.0	0.6084	46.369	850.7	0.6097
8	42.902	883.7	0.5662	45.537	881.8	0.5679	47.084	860.3	0.5694
9	43.378	890.1	0.5281	46.039	885.8	0.5299	47.639	872.9	0.5315
10	43.603	892.1	0.4932	46.286	889.1	0.4950	47.940	885.9	0.4967
11	43.626	889.8	0.4616	46.325	891.5	0.4634	48.032	898.9	0.4651
12	43.538	884.1	0.4333	46.247	893.0	0.4351	48.005	911.5	0.4367
13	43.414	876.7	0.4079	46.122	892.9	0.4096	47.924	922.6	0.4112
14	43.052	867.3	0.3855	45.746	890.8	0.3871	47.585	932.1	0.3886
15	42.514	857.0	0.3656	45.177	886.1	0.3672	47.044	939.3	0.3686
16	41.752	845.6	0.3479	44.365	878.5	0.3495	46.246	942.9	0.3507
17	40.752	831.7	0.3321	43.291	867.5	0.3336	45.163	940.6	0.3347
18	39.527	813.6	0.3178	41.958	851.8	0.3191	43.787	929.5	0.3201
19	37.942	790.0	0.3045	40.220	829.9	0.3059	41.960	907.1	0.3068
20	35.717	761.5	0.2926	37.787	801.1	0.2939	39.386	872.6	0.2948
21	32.272	728.9	0.2821	34.071	765.2	0.2834	35.475	827.3	0.2843
22	27.162	692.7	0.2734	28.623	722.6	0.2747	29.772	771.7	0.2755
23	20.547	656.4	0.2666	21.635	678.3	0.2680	22.492	712.7	0.2687
24	8.250	596.3	0.2603	8.670	605.1	0.2618	9.006	617.8	0.2626

Table 4-20. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C3

	Assembly Number C3								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.371	634.9	0.7396	2.983	640.3	0.7396
2	0.000		0.7396	4.896	868.7	0.7396	10.743	900.5	0.7396
3	0.000		0.7396	6.972	1039.4	0.7396	14.490	1026.5	0.7396
4	0.000		0.7396	8.125	1147.0	0.7220	16.104	982.5	0.7191
5	0.000		0.7233	8.538	1086.3	0.6679	16.504	981.6	0.6662
6	0.000	Data Not	0.6752	8.581	1089.9	0.6113	16.438	974.1	0.6119
7	0.000	Required	0.6303	8.476	1081.0	0.5586	16.245	968.1	0.5615
8	0.000		0.5878	8.296	1066.0	0.5121	16.023	965.3	0.5168
9	0.000		0.5503	8.037	1044.7	0.4726	15.780	966.4	0.4779
10	0.000		0.5178	7.737	1020.7	0.4393	15.535	970.1	0.4441
11	0.000		0.4896	7.427	996.4	0.4111	15.281	973.9	0.4148
12	0.000		0.4648	7.127	973.6	0.3871	15.024	976.9	0.3890
13	0.000		0.4426	6.850	953.0	0.3666	14.771	978.5	0.3664
14	0.000		0.4222	6.596	934.5	0.3489	14.522	978.8	0.3463
15	0.000		0.4033	6.365	918.0	0.3334	14.273	977.6	0.3284
16	0.000		0.3858	6.147	902.7	0.3198	14.009	974.5	0.3124
17	0.000		0.3696	5.926	887.5	0.3078	13.705	968.8	0.2981
18	0.000		0.3547	5.679	870.8	0.2972	13.316	959.2	0.2853
19	0.000		0.3405	5.376	850.8	0.2877	12.781	943.7	0.2739
20	0.000		0.3278	4.975	825.1	0.2795	12.000	918.9	0.2639
21	0.000		0.3168	4.421	790.8	0.2724	10.812	879.2	0.2553
22	0.000		0.3081	3.638	744.9	0.2665	8.999	818.3	0.2482
23	0.000		0.3017	2.681	692.4	0.2620	6.634	742.2	0.2427
24	0.000		0.2980	1.219	618.8	0.2595	3.001	638.1	0.2392

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.922	622.7	0.7396	5.898	639.3	0.7396	6.786	636.0	0.7396
2	14.180	820.4	0.7396	20.653	856.9	0.7396	23.293	812.5	0.7396
3	19.069	927.5	0.7396	27.037	942.3	0.7396	30.200	872.7	0.7396
4	21.493	938.3	0.7177	30.036	910.2	0.7147	33.430	846.5	0.7156
5	22.525	996.6	0.6682	31.248	919.4	0.6682	34.769	859.5	0.6712
6	22.946	1044.2	0.6154	31.738	923.0	0.6182	35.344	868.3	0.6232
7	23.083	1077.8	0.5643	31.974	928.2	0.5700	35.650	875.6	0.5763
8	23.046	1097.1	0.5176	32.123	938.0	0.5259	35.872	883.4	0.5332
9	22.847	1101.8	0.4765	32.192	952.3	0.4870	36.020	891.8	0.4946
10	22.522	1093.3	0.4409	32.154	967.9	0.4530	36.055	899.7	0.4605
11	22.092	1075.0	0.4103	31.998	983.0	0.4232	35.960	906.3	0.4306
12	21.593	1050.3	0.3839	31.729	995.9	0.3971	35.744	912.1	0.4042
13	21.055	1022.0	0.3610	31.373	1006.2	0.3741	35.434	917.2	0.3810
14	20.492	991.8	0.3410	30.934	1013.3	0.3537	35.036	921.7	0.3603
15	19.900	959.8	0.3235	30.394	1016.3	0.3356	34.519	924.3	0.3417
16	19.263	926.3	0.3081	29.714	1013.9	0.3194	33.830	923.3	0.3251
17	18.574	893.1	0.2944	28.875	1005.3	0.3047	32.939	917.5	0.3102
18	17.853	865.4	0.2822	27.915	991.7	0.2915	31.881	906.7	0.2967
19	17.037	842.7	0.2714	26.749	972.3	0.2795	30.557	889.7	0.2844
20	15.969	820.2	0.2619	25.154	943.7	0.2688	28.723	864.5	0.2735
21	14.381	789.8	0.2536	22.715	899.5	0.2595	25.926	828.2	0.2640
22	11.986	747.6	0.2467	19.032	836.7	0.2519	21.738	779.6	0.2562
23	8.908	699.0	0.2414	14.314	763.3	0.2460	16.393	723.3	0.2503
24	3.812	608.3	0.2383	5.793	629.9	0.2421	6.578	619.2	0.2461

Table 4-20. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C3

	Assembly Number C3								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.372	617.8	0.7396	7.415	610.7	0.7396	7.875	613.4	0.7396
2	25.024	746.4	0.7396	25.149	719.3	0.7396	26.459	724.5	0.7396
3	32.349	798.6	0.7396	32.503	761.3	0.7396	34.124	769.1	0.7396
4	35.889	795.8	0.7170	36.063	756.1	0.7171	37.887	762.6	0.7187
5	37.406	815.9	0.6744	37.596	776.7	0.6748	39.588	784.1	0.6779
6	38.106	830.3	0.6283	38.311	796.6	0.6288	40.451	803.5	0.6336
7	38.486	839.0	0.5827	38.705	815.6	0.5834	40.984	822.2	0.5895
8	38.758	844.9	0.5403	38.991	835.1	0.5411	41.403	840.6	0.5482
9	38.951	850.2	0.5021	39.196	852.2	0.5029	41.725	857.0	0.5105
10	39.028	855.2	0.4682	39.280	862.3	0.4690	41.885	867.9	0.4765
11	38.970	859.7	0.4382	39.226	868.1	0.4390	41.865	872.8	0.4462
12	38.785	863.4	0.4117	39.041	868.1	0.4125	41.685	873.5	0.4192
13	38.504	867.0	0.3882	38.757	863.7	0.3889	41.383	870.9	0.3952
14	38.145	871.7	0.3674	38.395	859.4	0.3680	40.989	866.3	0.3740
15	37.739	885.4	0.3490	37.984	852.2	0.3497	40.532	859.7	0.3552
16	37.282	914.9	0.3330	37.520	842.1	0.3336	40.005	850.8	0.3388
17	36.540	934.3	0.3182	36.772	833.7	0.3188	39.181	840.1	0.3237
18	35.454	930.6	0.3042	35.677	821.1	0.3047	37.987	826.5	0.3094
19	34.000	913.7	0.2913	34.210	803.3	0.2918	36.375	806.9	0.2962
20	31.950	886.3	0.2798	32.141	778.0	0.2803	34.105	780.5	0.2845
21	28.834	847.5	0.2699	28.999	744.7	0.2703	30.702	747.6	0.2744
22	24.191	795.1	0.2618	24.326	708.1	0.2622	25.707	708.8	0.2661
23	18.267	733.3	0.2556	18.369	669.7	0.2560	19.405	669.5	0.2600
24	7.297	623.5	0.2512	7.335	600.6	0.2516	7.720	600.4	0.2552

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.510	628.9	0.7396	9.208	645.3	0.7396	9.619	640.5	0.7396
2	28.249	773.6	0.7396	30.166	821.1	0.7396	31.257	795.7	0.7396
3	36.353	835.5	0.7396	38.694	891.3	0.7396	39.985	847.1	0.7396
4	40.408	828.7	0.7197	42.975	871.7	0.7198	44.352	821.2	0.7203
5	42.332	857.4	0.6802	45.009	888.2	0.6810	46.421	829.1	0.6819
6	43.354	878.6	0.6367	46.068	893.8	0.6381	47.505	834.8	0.6395
7	43.993	893.0	0.5934	46.718	895.5	0.5950	48.185	841.7	0.5968
8	44.491	903.9	0.5523	47.227	897.2	0.5541	48.736	851.4	0.5562
9	44.864	911.0	0.5145	47.617	899.8	0.5164	49.179	863.8	0.5187
10	45.040	913.2	0.4804	47.806	901.8	0.4822	49.423	877.0	0.4845
11	45.004	911.0	0.4498	47.778	903.0	0.4515	49.449	890.0	0.4539
12	44.786	905.7	0.4225	47.562	903.3	0.4243	49.284	902.6	0.4265
13	44.421	896.9	0.3983	47.182	901.0	0.4000	48.951	914.3	0.4022
14	43.948	886.1	0.3768	46.680	896.5	0.3784	48.488	924.2	0.3805
15	43.394	873.1	0.3579	46.079	889.4	0.3594	47.915	931.3	0.3613
16	42.746	857.0	0.3413	45.359	878.5	0.3427	47.208	934.6	0.3445
17	41.785	839.3	0.3260	44.305	864.7	0.3274	46.149	933.4	0.3290
18	40.431	819.0	0.3117	42.827	846.7	0.3130	44.638	924.9	0.3145
19	38.620	794.5	0.2986	40.846	822.6	0.2999	42.580	905.6	0.3013
20	36.105	765.3	0.2868	38.111	792.5	0.2882	39.713	873.4	0.2894
21	32.414	732.5	0.2766	34.146	756.5	0.2780	35.557	828.9	0.2792
22	27.087	696.3	0.2684	28.491	715.7	0.2698	29.648	773.4	0.2709
23	20.435	660.0	0.2622	21.485	673.9	0.2636	22.352	714.6	0.2647
24	8.111	598.0	0.2576	8.520	603.9	0.2590	8.861	618.7	0.2602

Table 4-21. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C4

	Assembly Number C4								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.485	641.6	0.7396	3.062	638.5	0.7396
2	0.000		0.7396	5.272	897.6	0.7396	10.954	888.8	0.7396
3	0.000		0.7396	7.469	1084.6	0.7396	14.717	1005.1	0.7396
4	0.000		0.7356	8.642	1095.1	0.7141	16.360	964.7	0.7160
5	0.000		0.6773	9.031	1128.8	0.6547	16.829	970.1	0.6606
6	0.000	Data Not	0.6189	9.033	1129.0	0.5951	16.843	970.9	0.6046
7	0.000	Required	0.5647	8.837	1111.9	0.5407	16.681	973.2	0.5533
8	0.000		0.5193	8.550	1087.3	0.4944	16.456	977.5	0.5086
9	0.000		0.4818	8.224	1060.0	0.4560	16.207	982.8	0.4702
10	0.000		0.4508	7.889	1032.8	0.4239	15.951	988.2	0.4369
11	0.000		0.4247	7.564	1007.1	0.3970	15.691	992.8	0.4079
12	0.000		0.4023	7.259	983.6	0.3741	15.433	996.1	0.3824
13	0.000		0.3827	6.982	962.7	0.3545	15.184	998.0	0.3599
14	0.000		0.3654	6.736	944.6	0.3376	14.948	998.7	0.3399
15	0.000		0.3496	6.522	929.1	0.3228	14.729	998.4	0.3220
16	0.000		0.3354	6.342	916.4	0.3096	14.529	997.0	0.3059
17	0.000		0.3225	6.172	904.4	0.2978	14.305	993.2	0.2915
18	0.000		0.3107	5.934	888.0	0.2873	13.942	984.5	0.2786
19	0.000		0.3000	5.614	866.5	0.2781	13.396	969.0	0.2672
20	0.000		0.2908	5.179	838.1	0.2700	12.567	942.6	0.2572
21	0.000		0.2834	4.578	800.4	0.2632	11.301	899.8	0.2486
22	0.000		0.2774	3.750	751.3	0.2575	9.391	834.4	0.2416
23	0.000		0.2729	2.762	696.7	0.2532	6.928	753.2	0.2361
24	0.000		0.2702	1.254	620.4	0.2505	3.131	642.4	0.2325

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.678	600.2	0.7396	4.942	609.5	0.7396	5.876	640.2	0.7396
2	13.266	725.7	0.7396	17.565	745.0	0.7396	20.487	844.5	0.7396
3	17.835	792.5	0.7396	23.229	799.6	0.7396	26.799	922.3	0.7396
4	20.169	807.9	0.7180	26.072	784.8	0.7227	29.919	893.8	0.7220
5	21.109	844.6	0.6685	27.260	795.8	0.6806	31.246	908.9	0.6812
6	21.498	875.2	0.6182	27.870	805.7	0.6370	31.919	915.8	0.6383
7	21.558	893.8	0.5712	28.438	829.0	0.5960	32.498	917.0	0.5974
8	21.468	905.3	0.5296	29.137	866.5	0.5587	33.185	915.7	0.5597
9	21.256	908.5	0.4927	29.360	887.9	0.5229	33.445	919.8	0.5237
10	20.962	905.2	0.4601	29.284	898.9	0.4899	33.425	926.0	0.4904
11	20.617	897.9	0.4311	29.080	906.1	0.4600	33.272	931.8	0.4603
12	20.271	890.5	0.4054	28.821	910.5	0.4333	33.043	935.1	0.4334
13	20.149	901.3	0.3843	28.710	911.1	0.4105	32.937	935.7	0.4102
14	20.664	968.0	0.3691	29.171	908.3	0.3922	33.339	929.1	0.3914
15	20.514	974.4	0.3492	29.283	921.8	0.3730	33.398	923.1	0.3721
16	20.012	946.8	0.3295	28.815	923.6	0.3533	32.891	918.8	0.3526
17	19.407	913.1	0.3119	28.086	917.2	0.3353	32.091	911.0	0.3348
18	18.684	882.4	0.2967	27.202	908.9	0.3196	31.096	898.9	0.3192
19	17.813	855.7	0.2837	26.046	894.4	0.3058	29.778	881.6	0.3055
20	16.642	828.4	0.2726	24.428	872.2	0.2937	27.924	856.9	0.2935
21	14.928	794.1	0.2632	22.004	838.1	0.2834	25.154	822.1	0.2834
22	12.386	748.2	0.2555	18.372	788.5	0.2751	21.037	775.8	0.2751
23	9.122	693.8	0.2496	13.647	726.6	0.2688	15.716	722.5	0.2687
24	3.886	605.1	0.2433	5.486	616.5	0.2607	6.266	618.8	0.2612

Table 4-21. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C4

	Assembly Number C4								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.707	643.7	0.7396	6.742	600.8	0.7396	7.099	600.9	0.7396
2	23.027	850.3	0.7396	23.126	683.3	0.7396	24.151	685.6	0.7396
3	29.934	934.8	0.7396	30.054	712.3	0.7396	31.293	714.6	0.7396
4	33.336	910.4	0.7212	33.469	705.7	0.7213	34.844	708.1	0.7227
5	34.797	927.7	0.6811	34.943	721.3	0.6814	36.453	724.1	0.6843
6	35.510	933.0	0.6386	35.669	737.2	0.6391	37.324	741.6	0.6437
7	36.073	930.9	0.5976	36.246	754.8	0.5982	38.048	759.9	0.6045
8	36.718	925.4	0.5595	36.905	772.8	0.5603	38.858	779.1	0.5678
9	36.970	924.3	0.5233	37.173	793.9	0.5242	39.284	799.7	0.5328
10	36.964	926.1	0.4899	37.180	811.5	0.4908	39.426	817.8	0.5002
11	36.828	928.4	0.4598	37.052	822.5	0.4608	39.391	830.5	0.4702
12	36.607	929.4	0.4328	36.835	828.1	0.4338	39.221	836.9	0.4430
13	36.495	928.6	0.4094	36.723	828.1	0.4104	39.110	837.1	0.4191
14	36.857	923.4	0.3904	37.080	821.1	0.3912	39.421	830.7	0.3990
15	36.894	920.5	0.3710	37.111	812.8	0.3718	39.401	823.7	0.3791
16	36.383	920.0	0.3517	36.595	806.0	0.3525	38.839	817.5	0.3594
17	35.554	916.3	0.3341	35.761	799.3	0.3348	37.944	809.3	0.3414
18	34.484	906.6	0.3186	34.683	788.6	0.3193	36.775	797.2	0.3257
19	33.033	889.8	0.3050	33.219	771.5	0.3057	35.183	780.5	0.3118
20	30.972	864.3	0.2931	31.143	752.3	0.2937	32.934	758.5	0.2995
21	27.900	828.4	0.2829	28.051	727.4	0.2835	29.630	732.4	0.2891
22	23.360	780.8	0.2747	23.486	697.4	0.2753	24.797	700.7	0.2808
23	17.511	725.2	0.2683	17.606	661.9	0.2689	18.599	664.7	0.2744
24	6.960	621.2	0.2611	6.995	597.5	0.2617	7.361	598.5	0.2669

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.539	606.8	0.7396	8.107	628.5	0.7396	8.426	621.5	0.7396
2	25.408	703.8	0.7396	26.998	770.4	0.7396	27.880	745.0	0.7396
3	32.834	740.3	0.7396	34.780	825.7	0.7396	35.852	791.0	0.7396
4	36.583	735.5	0.7239	38.761	815.9	0.7244	39.942	778.5	0.7251
5	38.376	756.4	0.6869	40.725	840.0	0.6885	41.975	793.3	0.6898
6	39.419	776.5	0.6477	41.882	856.4	0.6500	43.174	802.4	0.6519
7	40.296	794.8	0.6095	42.818	865.0	0.6121	44.134	807.7	0.6145
8	41.232	810.3	0.5736	43.781	869.0	0.5763	45.119	812.5	0.5788
9	41.776	825.0	0.5392	44.355	873.5	0.5417	45.730	820.8	0.5444
10	42.007	836.3	0.5067	44.609	876.9	0.5092	46.032	831.6	0.5119
11	42.020	842.5	0.4769	44.630	878.1	0.4792	46.102	842.8	0.4819
12	41.874	845.6	0.4496	44.476	876.9	0.4518	45.994	853.5	0.4545
13	41.791	849.2	0.4257	44.360	872.0	0.4276	45.914	862.0	0.4302
14	42.041	841.3	0.4050	44.543	862.1	0.4068	46.116	866.5	0.4092
15	41.934	830.2	0.3846	44.367	852.0	0.3863	45.958	870.7	0.3886
16	41.284	819.1	0.3647	43.649	842.3	0.3665	45.257	874.8	0.3687
17	40.287	806.5	0.3466	42.567	830.2	0.3484	44.179	875.8	0.3507
18	38.997	791.7	0.3308	41.160	813.9	0.3326	42.747	869.8	0.3348
19	37.283	777.1	0.3168	39.293	793.0	0.3187	40.814	854.2	0.3208
20	34.909	762.4	0.3049	36.723	767.1	0.3067	38.135	829.1	0.3087
21	31.382	736.9	0.2945	32.963	737.4	0.2963	34.220	794.8	0.2981
22	26.251	704.2	0.2860	27.561	704.3	0.2878	28.613	751.6	0.2896
23	19.701	667.3	0.2796	20.697	667.8	0.2815	21.499	702.0	0.2832
24	7.774	600.0	0.2719	8.159	601.4	0.2739	8.472	613.9	0.2758

Table 4-21. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C4

	Assembly Number C4					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.484	566.4	0.7396	8.575	568.2	0.7396
2	28.038	579.2	0.7396	28.276	583.2	0.7396
3	36.033	582.1	0.7396	36.300	586.2	0.7396
4	40.134	582.9	0.7253	40.408	585.7	0.7255
5	42.180	584.3	0.6901	42.461	586.4	0.6906
6	43.394	586.0	0.6524	43.685	587.2	0.6531
7	44.372	587.9	0.6152	44.678	588.6	0.6161
8	45.378	590.3	0.5798	45.701	590.1	0.5810
9	46.013	592.9	0.5457	46.360	592.2	0.5472
10	46.341	595.8	0.5136	46.713	594.4	0.5155
11	46.436	598.6	0.4839	46.837	597.0	0.4861
12	46.355	601.6	0.4568	46.784	599.4	0.4595
13	46.301	604.5	0.4329	46.757	601.9	0.4360
14	46.528	607.4	0.4122	47.009	604.1	0.4157
15	46.397	610.4	0.3920	46.906	606.6	0.3959
16	45.726	613.8	0.3726	46.266	609.4	0.3769
17	44.676	617.0	0.3549	45.248	612.2	0.3597
18	43.265	619.4	0.3393	43.863	614.6	0.3445
19	41.340	620.3	0.3256	41.952	615.9	0.3311
20	38.650	619.0	0.3137	39.257	615.4	0.3194
21	34.699	614.9	0.3033	35.274	612.5	0.3092
22	29.017	606.5	0.2946	29.509	605.1	0.3007
23	21.787	593.5	0.2879	22.142	592.9	0.2936
24	8.564	571.7	0.2796	8.678	571.6	0.2844

Table 4-22. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C5

	Assembly Number C5								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.900	608.1	0.7396	2.743	652.7	0.7396
2	0.000		0.7396	3.153	745.4	0.7396	9.830	961.2	0.7396
3	0.000		0.7396	4.624	848.3	0.7396	13.647	1153.6	0.7396
4	0.000		0.7396	5.762	936.5	0.7396	15.488	1217.7	0.7179
5	0.000		0.7396	6.569	1004.0	0.7211	16.096	1095.8	0.6710
6	0.000	Data Not	0.7283	7.130	973.8	0.6800	16.211	1061.8	0.6225
7	0.000	Required	0.6904	7.589	1009.0	0.6336	16.257	1031.3	0.5758
8	0.000		0.6529	8.016	1043.0	0.5865	16.358	1007.9	0.5324
9	0.000		0.6174	8.068	1047.3	0.5398	16.282	998.9	0.4904
10	0.000		0.5836	7.929	1036.0	0.4976	16.172	1000.9	0.4522
11	0.000		0.5526	7.677	1015.9	0.4614	15.959	1003.7	0.4188
12	0.000		0.5245	7.386	993.3	0.4309	15.714	1006.9	0.3900
13	0.000		0.4984	7.100	971.5	0.4050	15.474	1010.2	0.3651
14	0.000		0.4735	6.833	951.7	0.3830	15.246	1013.0	0.3435
15	0.000		0.4490	6.590	934.0	0.3641	15.023	1014.4	0.3244
16	0.000		0.4257	6.367	918.1	0.3477	14.780	1013.0	0.3077
17	0.000		0.4044	6.158	903.5	0.3332	14.498	1007.8	0.2928
18	0.000		0.3855	5.938	888.3	0.3205	14.133	997.5	0.2796
19	0.000		0.3690	5.653	869.1	0.3093	13.596	980.0	0.2678
20	0.000		0.3550	5.260	843.3	0.2993	12.775	951.0	0.2575
21	0.000		0.3432	4.728	809.6	0.2906	11.557	906.4	0.2484
22	0.000		0.3339	3.958	763.4	0.2833	9.704	840.5	0.2408
23	0.000		0.3270	2.949	706.7	0.2779	7.201	757.7	0.2351
24	0.000		0.3230	1.356	625.4	0.2744	3.292	645.1	0.2317

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.765	628.6	0.7396	5.809	642.2	0.7396	6.632	630.1	0.7396
2	13.635	853.6	0.7396	20.392	872.5	0.7396	22.888	796.5	0.7396
3	18.690	974.5	0.7396	26.978	961.5	0.7396	30.000	856.1	0.7396
4	21.309	977.8	0.7149	30.129	924.5	0.7115	33.468	841.0	0.7130
5	22.450	1028.9	0.6687	31.405	931.6	0.6671	34.962	863.2	0.6706
6	22.960	1068.6	0.6190	31.933	932.5	0.6193	35.704	885.7	0.6248
7	23.262	1095.2	0.5699	32.259	933.8	0.5724	36.157	899.3	0.5793
8	23.471	1106.6	0.5240	32.560	938.6	0.5290	36.535	907.7	0.5365
9	23.368	1103.8	0.4811	32.643	948.5	0.4890	36.684	914.9	0.4966
10	23.114	1088.6	0.4430	32.590	959.4	0.4534	36.677	920.0	0.4609
11	22.692	1067.0	0.4101	32.374	970.6	0.4224	36.491	923.4	0.4295
12	22.192	1041.2	0.3820	32.051	980.4	0.3952	36.182	924.9	0.4021
13	21.670	1013.4	0.3580	31.665	988.0	0.3716	35.801	925.5	0.3781
14	21.145	985.1	0.3372	31.221	992.5	0.3507	35.353	925.0	0.3569
15	20.608	956.0	0.3190	30.697	993.3	0.3322	34.807	922.6	0.3381
16	20.032	926.2	0.3031	30.045	989.0	0.3159	34.106	917.2	0.3214
17	19.414	897.1	0.2891	29.254	979.3	0.3011	33.229	907.7	0.3064
18	18.771	873.8	0.2766	28.361	965.6	0.2878	32.208	893.8	0.2929
19	18.004	854.9	0.2654	27.256	947.3	0.2758	30.918	874.2	0.2806
20	16.929	834.6	0.2556	25.685	921.2	0.2652	29.091	847.7	0.2697
21	15.313	803.9	0.2470	23.265	880.4	0.2559	26.310	811.9	0.2603
22	12.856	759.4	0.2398	19.574	821.5	0.2481	22.121	764.9	0.2524
23	9.609	707.9	0.2344	14.753	752.2	0.2422	16.674	709.8	0.2466
24	4.154	611.3	0.2312	6.041	626.6	0.2380	6.767	614.8	0.2421

Table 4-22. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C5

	Assembly Number C5								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.088	604.4	0.7396	7.102	575.5	0.7396	7.316	583.9	0.7396
2	24.271	705.2	0.7396	24.314	610.7	0.7396	24.913	630.6	0.7396
3	31.723	745.5	0.7396	31.778	625.7	0.7396	32.475	642.9	0.7396
4	35.431	742.4	0.7149	35.498	631.2	0.7149	36.234	636.9	0.7158
5	37.139	765.0	0.6745	37.216	642.0	0.6746	37.983	640.2	0.6763
6	38.204	800.4	0.6310	38.289	650.8	0.6313	39.084	643.2	0.6339
7	38.836	820.7	0.5872	38.927	657.4	0.5877	39.763	647.6	0.5911
8	39.341	835.4	0.5455	39.438	664.1	0.5460	40.322	652.8	0.5505
9	39.600	848.4	0.5064	39.703	670.9	0.5070	40.643	658.9	0.5126
10	39.707	862.1	0.4710	39.816	677.7	0.4718	40.813	665.1	0.4785
11	39.627	875.0	0.4397	39.741	683.4	0.4406	40.793	671.2	0.4485
12	39.369	881.3	0.4120	39.488	689.2	0.4130	40.589	676.7	0.4219
13	39.045	888.4	0.3877	39.165	690.4	0.3888	40.304	681.0	0.3985
14	38.687	899.8	0.3664	38.809	692.7	0.3675	39.972	683.7	0.3777
15	38.413	934.9	0.3483	38.533	690.4	0.3493	39.702	684.4	0.3598
16	37.774	943.2	0.3310	37.893	689.2	0.3322	39.065	684.7	0.3429
17	36.833	934.7	0.3152	36.949	685.8	0.3163	38.116	684.1	0.3272
18	35.692	919.0	0.3009	35.805	682.3	0.3020	36.954	682.1	0.3130
19	34.229	896.9	0.2880	34.337	676.6	0.2891	35.451	678.2	0.3000
20	32.162	867.1	0.2765	32.264	669.7	0.2776	33.321	671.8	0.2885
21	29.055	828.3	0.2667	29.148	659.6	0.2678	30.121	662.5	0.2786
22	24.419	778.1	0.2586	24.499	645.3	0.2597	25.338	647.9	0.2706
23	18.404	718.6	0.2525	18.464	623.7	0.2535	19.099	626.2	0.2644
24	7.427	618.3	0.2477	7.447	582.1	0.2485	7.664	583.5	0.2577

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.503	579.0	0.7396	7.633	574.4	0.7396	7.696	571.0	0.7396
2	25.425	614.9	0.7396	25.777	601.4	0.7396	25.944	591.2	0.7396
3	33.057	622.9	0.7396	33.453	606.8	0.7396	33.640	595.1	0.7396
4	36.839	618.2	0.7164	37.248	603.9	0.7169	37.438	593.2	0.7171
5	38.611	620.4	0.6776	39.033	605.3	0.6784	39.230	594.3	0.6788
6	39.742	623.3	0.6358	40.184	607.4	0.6372	40.390	595.8	0.6377
7	40.464	627.5	0.5939	40.936	610.5	0.5958	41.159	598.7	0.5967
8	41.075	632.5	0.5543	41.586	614.6	0.5567	41.830	602.2	0.5579
9	41.454	638.2	0.5174	42.011	619.5	0.5204	42.281	606.6	0.5219
10	41.683	644.0	0.4842	42.287	624.6	0.4881	42.587	611.7	0.4899
11	41.722	649.9	0.4553	42.377	630.0	0.4598	42.708	616.9	0.4621
12	41.575	655.6	0.4297	42.283	635.8	0.4350	42.647	622.6	0.4378
13	41.343	660.9	0.4073	42.102	641.3	0.4134	42.502	628.8	0.4166
14	41.056	665.5	0.3874	41.865	646.8	0.3944	42.300	634.9	0.3980
15	40.818	668.8	0.3701	41.672	651.8	0.3778	42.141	640.9	0.3819
16	40.212	671.9	0.3537	41.113	657.1	0.3623	41.621	647.8	0.3671
17	39.290	674.7	0.3388	40.236	662.1	0.3482	40.784	654.9	0.3535
18	38.140	676.0	0.3249	39.123	666.3	0.3352	39.707	661.4	0.3412
19	36.630	675.2	0.3123	37.633	668.6	0.3233	38.245	666.5	0.3300
20	34.467	671.8	0.3011	35.469	668.5	0.3126	36.096	669.3	0.3199
21	31.198	664.8	0.2915	32.165	664.5	0.3036	32.783	667.6	0.3115
22	26.284	651.6	0.2839	27.153	653.5	0.2966	27.720	658.4	0.3050
23	19.820	629.4	0.2775	20.492	631.9	0.2904	20.936	636.5	0.2990
24	7.908	584.3	0.2689	8.133	584.8	0.2798	8.282	586.4	0.2872

Table 4-22. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C5

	Assembly Number C5					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.877	582.1	0.7396	8.393	612.4	0.7396
2	26.493	631.1	0.7396	27.944	718.9	0.7396
3	34.341	652.3	0.7396	36.065	752.7	0.7396
4	38.233	651.7	0.7179	40.054	734.1	0.7189
5	40.096	660.2	0.6805	41.973	740.1	0.6824
6	41.320	667.9	0.6404	43.214	741.9	0.6433
7	42.155	676.0	0.6004	44.064	743.5	0.6043
8	42.894	684.4	0.5627	44.829	746.3	0.5673
9	43.411	692.7	0.5278	45.401	752.3	0.5333
10	43.770	699.4	0.4968	45.858	763.0	0.5032
11	43.929	704.3	0.4696	46.067	768.6	0.4764
12	43.895	707.7	0.4457	46.050	770.5	0.4527
13	43.764	709.5	0.4248	45.920	770.6	0.4316
14	43.568	710.3	0.4063	45.715	769.6	0.4129
15	43.403	709.5	0.3902	45.528	767.1	0.3964
16	42.875	708.5	0.3751	44.980	764.9	0.3812
17	42.019	706.1	0.3615	44.094	761.6	0.3673
18	40.917	702.9	0.3490	42.932	755.0	0.3546
19	39.439	700.8	0.3376	41.347	743.4	0.3429
20	37.203	689.8	0.3271	38.946	725.9	0.3321
21	33.764	674.2	0.3183	35.271	701.5	0.3229
22	28.502	650.1	0.3112	29.704	671.2	0.3154
23	21.484	622.8	0.3047	22.346	638.8	0.3086
24	8.465	581.9	0.2921	8.775	588.9	0.2959

Table 4-23. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C6

	Assembly Number C6								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.164	623.0	0.7396	2.833	643.4	0.7396
2	0.000		0.7396	4.082	809.0	0.7396	10.062	910.0	0.7396
3	0.000		0.7396	5.800	939.6	0.7396	13.585	1048.1	0.7396
4	0.000		0.7396	6.966	1038.9	0.7356	15.325	1009.1	0.7234
5	0.000		0.7044	7.688	1016.8	0.6908	16.043	1008.8	0.6739
6	0.000	Data Not	0.6528	8.128	1052.1	0.6369	16.380	1001.5	0.6197
7	0.000	Required	0.6050	8.329	1068.7	0.5842	16.522	997.4	0.5682
8	0.000		0.5610	8.351	1070.6	0.5355	16.535	996.8	0.5209
9	0.000		0.5231	8.247	1061.9	0.4926	16.482	1000.3	0.4790
10	0.000		0.4906	8.085	1048.6	0.4557	16.407	1006.5	0.4425
11	0.000		0.4626	7.919	1035.2	0.4241	16.326	1012.5	0.4108
12	0.000		0.4382	7.781	1024.2	0.3974	16.270	1018.4	0.3834
13	0.000		0.4164	7.663	1014.8	0.3743	16.236	1024.4	0.3595
14	0.000		0.3969	7.507	1002.6	0.3539	16.152	1029.6	0.3380
15	0.000		0.3789	7.309	987.4	0.3359	16.027	1035.0	0.3187
16	0.000		0.3624	7.076	969.7	0.3201	15.857	1039.6	0.3016
17	0.000		0.3475	6.812	950.2	0.3064	15.589	1039.3	0.2864
18	0.000		0.3339	6.510	928.3	0.2944	15.203	1033.1	0.2728
19	0.000		0.3216	6.147	902.7	0.2840	14.642	1018.8	0.2609
20	0.000		0.3108	5.680	870.9	0.2748	13.792	991.7	0.2503
21	0.000		0.3016	5.052	830.0	0.2670	12.481	945.3	0.2410
22	0.000		0.2941	4.179	776.4	0.2606	10.474	873.3	0.2335
23	0.000		0.2889	3.111	715.5	0.2557	7.826	782.4	0.2275
24	0.000		0.2859	1.426	628.8	0.2526	3.566	654.3	0.2238

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.719	619.0	0.7396	4.984	609.5	0.7396	5.916	640.0	0.7396
2	13.317	804.4	0.7396	17.561	742.3	0.7396	20.487	844.9	0.7396
3	17.802	892.2	0.7396	23.016	790.4	0.7396	26.598	923.8	0.7396
4	20.067	882.4	0.7236	25.673	771.9	0.7265	29.550	897.1	0.7252
5	21.100	909.2	0.6787	26.889	779.9	0.6875	30.907	912.4	0.6871
6	21.630	926.0	0.6288	27.561	786.1	0.6436	31.644	919.6	0.6439
7	21.876	935.2	0.5799	27.974	793.5	0.6002	32.092	923.5	0.6010
8	21.927	938.6	0.5339	28.234	802.8	0.5595	32.381	926.7	0.5602
9	21.855	936.9	0.4925	28.394	813.3	0.5223	32.574	930.4	0.5228
10	21.712	930.9	0.4558	28.489	824.2	0.4892	32.690	932.8	0.4894
11	21.526	921.6	0.4239	28.526	834.6	0.4596	32.736	933.8	0.4596
12	21.333	909.7	0.3961	28.520	843.4	0.4333	32.724	933.1	0.4330
13	21.152	897.1	0.3719	28.487	850.4	0.4094	32.670	930.7	0.4090
14	20.933	885.7	0.3502	28.392	856.3	0.3877	32.539	926.7	0.3872
15	20.671	874.2	0.3309	28.214	860.4	0.3679	32.306	920.6	0.3674
16	20.340	861.0	0.3137	27.912	861.8	0.3500	31.922	911.5	0.3495
17	19.881	845.6	0.2983	27.416	860.0	0.3337	31.312	899.1	0.3333
18	19.309	830.9	0.2847	26.748	855.4	0.3192	30.503	884.0	0.3188
19	18.565	816.6	0.2728	25.839	847.5	0.3063	29.411	864.8	0.3059
20	17.496	799.9	0.2622	24.486	834.1	0.2948	27.815	839.9	0.2946
21	15.859	775.7	0.2531	22.344	810.8	0.2850	25.333	806.4	0.2848
22	13.345	739.5	0.2457	18.965	772.5	0.2770	21.493	763.2	0.2769
23	10.005	692.8	0.2399	14.341	719.0	0.2709	16.310	713.9	0.2708
24	4.332	605.7	0.2339	5.867	614.2	0.2609	6.615	616.4	0.2615

Table 4-23. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C6

	Assembly Number C6								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.716	640.4	0.7396	6.760	611.9	0.7396	7.219	613.3	0.7396
2	22.938	838.3	0.7396	23.070	729.3	0.7396	24.435	732.2	0.7396
3	29.653	923.0	0.7396	29.818	777.8	0.7396	31.513	780.0	0.7396
4	32.988	913.0	0.7242	33.172	768.9	0.7243	35.058	770.5	0.7256
5	34.509	934.4	0.6866	34.708	788.6	0.6869	36.744	789.8	0.6895
6	35.304	942.1	0.6438	35.516	806.0	0.6443	37.685	807.4	0.6483
7	35.755	942.5	0.6010	35.979	822.5	0.6015	38.279	825.1	0.6067
8	36.031	940.8	0.5600	36.269	842.2	0.5606	38.700	843.2	0.5666
9	36.214	939.4	0.5224	36.463	857.9	0.5231	39.009	859.4	0.5295
10	36.322	938.4	0.4888	36.578	868.1	0.4894	39.200	870.4	0.4958
11	36.359	937.2	0.4588	36.618	872.6	0.4595	39.273	875.1	0.4655
12	36.331	935.1	0.4321	36.589	871.1	0.4327	39.242	874.8	0.4383
13	36.258	932.6	0.4081	36.511	863.8	0.4087	39.137	870.9	0.4138
14	36.103	929.4	0.3862	36.352	857.9	0.3867	38.935	864.7	0.3915
15	35.837	925.1	0.3664	36.080	849.3	0.3669	38.607	856.7	0.3714
16	35.399	918.1	0.3485	35.635	839.3	0.3490	38.093	847.0	0.3532
17	34.707	907.5	0.3324	34.933	825.3	0.3329	37.305	835.0	0.3369
18	33.783	893.0	0.3180	33.998	810.1	0.3185	36.254	819.1	0.3222
19	32.534	873.5	0.3052	32.734	789.9	0.3057	34.838	798.8	0.3092
20	30.720	847.1	0.2939	30.902	766.3	0.2943	32.807	772.9	0.2977
21	27.937	812.1	0.2842	28.096	737.2	0.2846	29.747	741.2	0.2879
22	23.691	767.3	0.2763	23.821	702.1	0.2767	25.158	703.7	0.2798
23	18.012	715.8	0.2702	18.111	666.4	0.2706	19.108	665.1	0.2736
24	7.278	618.5	0.2615	7.315	599.6	0.2619	7.682	598.6	0.2649

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.845	627.9	0.7396	8.502	639.9	0.7396	8.865	630.6	0.7396
2	26.251	777.1	0.7396	28.102	810.6	0.7396	29.094	771.3	0.7396
3	33.756	837.5	0.7396	36.010	876.5	0.7396	37.188	817.7	0.7396
4	37.556	825.8	0.7262	40.006	854.5	0.7261	41.259	793.9	0.7265
5	39.431	850.0	0.6910	41.983	869.5	0.6914	43.276	802.6	0.6924
6	40.514	868.7	0.6507	43.116	876.9	0.6516	44.437	808.8	0.6531
7	41.219	883.6	0.6097	43.841	879.9	0.6109	45.192	815.4	0.6128
8	41.729	895.7	0.5699	44.370	882.7	0.5713	45.762	824.6	0.5735
9	42.104	904.8	0.5327	44.767	886.1	0.5342	46.212	836.6	0.5367
10	42.324	908.9	0.4988	45.003	888.5	0.5003	46.503	849.3	0.5029
11	42.388	907.6	0.4681	45.072	889.2	0.4696	46.623	861.3	0.4722
12	42.318	902.2	0.4406	44.993	887.9	0.4421	46.593	872.9	0.4447
13	42.151	893.6	0.4159	44.805	884.7	0.4174	46.450	883.7	0.4198
14	41.868	882.6	0.3935	44.486	879.3	0.3949	46.168	892.7	0.3973
15	41.443	869.6	0.3733	44.011	871.8	0.3747	45.725	900.6	0.3769
16	40.819	855.1	0.3551	43.320	862.0	0.3564	45.059	906.8	0.3586
17	39.903	838.5	0.3387	42.314	848.9	0.3401	44.064	909.5	0.3421
18	38.696	818.7	0.3241	40.986	831.6	0.3254	42.719	905.3	0.3274
19	37.086	794.8	0.3110	39.213	808.9	0.3123	40.885	890.3	0.3142
20	34.820	766.9	0.2995	36.738	780.8	0.3008	38.295	862.7	0.3025
21	31.476	734.4	0.2896	33.135	747.2	0.2909	34.515	821.9	0.2924
22	26.553	697.9	0.2815	27.899	708.7	0.2828	29.036	769.2	0.2842
23	20.147	660.9	0.2754	21.151	668.7	0.2767	22.002	711.5	0.2780
24	8.073	598.0	0.2668	8.458	601.4	0.2683	8.787	616.6	0.2697

Table 4-23. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C6

	Assembly Number C6					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.923	566.4	0.7396	9.012	568.0	0.7396
2	29.246	578.4	0.7396	29.477	582.5	0.7396
3	37.363	581.4	0.7396	37.620	585.2	0.7396
4	41.446	582.3	0.7267	41.711	584.9	0.7269
5	43.475	583.6	0.6927	43.748	585.7	0.6931
6	44.652	585.4	0.6535	44.936	586.6	0.6542
7	45.427	587.6	0.6135	45.727	588.0	0.6145
8	46.021	590.3	0.5745	46.342	589.9	0.5758
9	46.495	592.9	0.5380	46.841	592.1	0.5396
10	46.812	595.8	0.5046	47.185	594.5	0.5065
11	46.959	598.8	0.4743	47.359	596.9	0.4766
12	46.954	601.6	0.4470	47.381	599.3	0.4497
13	46.837	604.5	0.4226	47.292	601.8	0.4257
14	46.583	607.7	0.4004	47.066	604.3	0.4039
15	46.168	610.8	0.3805	46.681	606.9	0.3845
16	45.530	614.0	0.3626	46.075	609.8	0.3670
17	44.563	617.2	0.3465	45.138	612.5	0.3514
18	43.238	619.5	0.3321	43.839	614.9	0.3374
19	41.410	620.2	0.3191	42.024	616.0	0.3247
20	38.809	618.9	0.3076	39.418	615.6	0.3134
21	34.992	614.7	0.2975	35.566	612.4	0.3035
22	29.437	606.1	0.2892	29.927	604.9	0.2952
23	22.285	592.9	0.2826	22.638	592.7	0.2882
24	8.878	571.6	0.2734	8.992	571.6	0.2780

Table 4-24. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C7

	Assembly Number C7								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.950	610.9	0.7396	2.520	638.1	0.7396
2	0.000		0.7396	3.385	760.8	0.7396	9.167	895.9	0.7396
3	0.000		0.7396	4.921	870.6	0.7396	12.793	1055.2	0.7396
4	0.000		0.7396	6.047	959.9	0.7396	14.654	1117.1	0.7310
5	0.000		0.7396	6.767	1021.3	0.7183	15.309	1022.2	0.6881
6	0.000	Data Not	0.7183	7.176	977.3	0.6755	15.404	999.9	0.6406
7	0.000	Required	0.6769	7.382	993.0	0.6284	15.294	977.9	0.5934
8	0.000		0.6381	7.457	998.8	0.5827	15.138	962.2	0.5493
9	0.000		0.6007	7.421	996.0	0.5396	14.988	954.5	0.5091
10	0.000		0.5660	7.311	987.5	0.5013	14.865	953.6	0.4731
11	0.000		0.5351	7.089	970.7	0.4681	14.651	954.2	0.4411
12	0.000		0.5073	6.816	950.5	0.4395	14.395	955.3	0.4131
13	0.000		0.4821	6.539	930.4	0.4150	14.134	956.4	0.3886
14	0.000		0.4592	6.281	912.1	0.3939	13.890	957.3	0.3670
15	0.000		0.4378	6.054	896.3	0.3757	13.664	957.4	0.3478
16	0.000		0.4183	5.863	883.2	0.3596	13.434	954.8	0.3308
17	0.000		0.4005	5.709	872.8	0.3455	13.192	948.9	0.3156
18	0.000		0.3844	5.563	863.1	0.3328	12.899	939.2	0.3020
19	0.000		0.3700	5.330	847.8	0.3214	12.435	924.1	0.2897
20	0.000		0.3575	4.963	824.3	0.3112	11.683	899.6	0.2788
21	0.000		0.3470	4.417	790.6	0.3024	10.507	860.9	0.2694
22	0.000		0.3385	3.632	744.6	0.2951	8.713	802.6	0.2617
23	0.000		0.3321	2.664	691.5	0.2897	6.382	730.2	0.2559
24	0.000		0.3286	1.200	617.8	0.2864	2.865	632.9	0.2524

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.434	620.9	0.7396	5.334	636.1	0.7396	6.239	637.5	0.7396
2	12.643	823.9	0.7396	19.114	856.8	0.7396	21.872	825.7	0.7396
3	17.461	936.3	0.7396	25.526	948.1	0.7396	28.806	886.7	0.7396
4	20.075	941.2	0.7257	28.719	915.4	0.7205	32.197	855.1	0.7207
5	21.232	987.3	0.6835	30.010	922.3	0.6798	33.602	866.9	0.6814
6	21.661	1019.4	0.6360	30.459	923.3	0.6341	34.139	876.1	0.6371
7	21.755	1039.5	0.5883	30.607	926.2	0.5882	34.363	884.1	0.5924
8	21.692	1048.8	0.5433	30.673	932.9	0.5453	34.503	892.0	0.5500
9	21.531	1047.7	0.5021	30.688	942.2	0.5061	34.593	900.1	0.5112
10	21.301	1037.0	0.4656	30.611	950.4	0.4714	34.586	907.7	0.4764
11	20.933	1021.8	0.4335	30.372	957.4	0.4406	34.410	914.6	0.4456
12	20.517	1006.3	0.4057	30.054	962.7	0.4136	34.145	920.5	0.4184
13	20.120	993.3	0.3814	29.714	965.8	0.3897	33.845	924.9	0.3942
14	19.727	979.3	0.3601	29.344	967.1	0.3685	33.503	928.1	0.3727
15	19.288	959.6	0.3413	28.881	965.7	0.3496	33.054	929.6	0.3535
16	18.737	930.7	0.3247	28.239	960.8	0.3328	32.403	928.6	0.3364
17	18.117	897.9	0.3101	27.429	950.5	0.3178	31.548	923.6	0.3211
18	17.481	869.1	0.2971	26.525	936.2	0.3043	30.547	912.9	0.3073
19	16.720	845.0	0.2855	25.408	917.6	0.2922	29.271	895.6	0.2948
20	15.659	820.7	0.2751	23.836	891.6	0.2812	27.459	870.1	0.2837
21	14.049	787.8	0.2661	21.421	852.2	0.2718	24.689	833.8	0.2742
22	11.631	742.8	0.2588	17.797	796.5	0.2640	20.558	784.7	0.2664
23	8.553	692.3	0.2532	13.211	732.1	0.2581	15.310	725.0	0.2604
24	3.624	605.3	0.2503	5.279	618.4	0.2543	6.064	619.2	0.2565

Table 4-24. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C7

	Assembly Number C7								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.835	618.9	0.7396	6.873	604.5	0.7396	7.292	608.4	0.7396
2	23.658	753.1	0.7396	23.768	698.4	0.7396	24.975	710.2	0.7396
3	30.987	802.8	0.7396	31.124	736.4	0.7396	32.606	748.9	0.7396
4	34.663	796.6	0.7217	34.816	729.8	0.7218	36.471	741.6	0.7232
5	36.236	815.5	0.6839	36.405	749.8	0.6842	38.210	760.3	0.6870
6	36.908	831.1	0.6411	37.091	767.6	0.6416	39.039	778.4	0.6459
7	37.214	840.7	0.5976	37.413	788.6	0.5982	39.502	796.8	0.6040
8	37.410	847.4	0.5560	37.625	810.1	0.5568	39.854	815.5	0.5637
9	37.548	853.1	0.5175	37.776	828.1	0.5183	40.129	832.4	0.5260
10	37.581	857.9	0.4829	37.819	842.1	0.4838	40.257	844.2	0.4918
11	37.446	862.8	0.4521	37.689	849.3	0.4530	40.171	850.4	0.4608
12	37.213	866.7	0.4248	37.457	850.7	0.4256	39.952	852.2	0.4331
13	36.938	869.8	0.4004	37.180	847.9	0.4013	39.661	850.2	0.4084
14	36.629	873.8	0.3788	36.868	843.6	0.3796	39.317	845.7	0.3862
15	36.284	886.7	0.3598	36.517	835.1	0.3605	38.917	838.9	0.3668
16	35.862	915.8	0.3433	36.087	823.9	0.3440	38.418	829.4	0.3497
17	35.160	935.7	0.3282	35.377	812.8	0.3288	37.623	817.8	0.3343
18	34.132	932.2	0.3139	34.338	797.9	0.3145	36.478	803.5	0.3197
19	32.724	915.0	0.3008	32.916	779.3	0.3014	34.913	784.8	0.3064
20	30.698	887.8	0.2891	30.872	756.1	0.2897	32.683	761.0	0.2945
21	27.617	849.9	0.2792	27.770	729.8	0.2796	29.347	732.2	0.2842
22	23.038	798.1	0.2710	23.167	700.9	0.2716	24.450	697.4	0.2760
23	17.199	734.8	0.2649	17.298	666.4	0.2654	18.257	661.0	0.2698
24	6.782	623.4	0.2607	6.818	598.6	0.2612	7.168	596.9	0.2653

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.842	619.2	0.7396	8.458	634.6	0.7396	8.864	639.5	0.7396
2	26.542	743.7	0.7396	28.263	790.3	0.7396	29.359	797.0	0.7396
3	34.546	794.3	0.7396	36.652	851.7	0.7396	37.951	849.2	0.7396
4	38.664	788.2	0.7244	40.988	836.4	0.7247	42.373	823.0	0.7250
5	40.615	814.1	0.6895	43.076	856.1	0.6904	44.497	831.2	0.6910
6	41.619	836.2	0.6495	44.155	867.1	0.6511	45.597	836.0	0.6521
7	42.221	854.2	0.6085	44.796	872.9	0.6104	46.267	842.6	0.6118
8	42.681	868.4	0.5688	45.288	877.6	0.5709	46.801	852.3	0.5725
9	43.035	879.0	0.5313	45.674	882.4	0.5335	47.239	864.6	0.5352
10	43.198	883.7	0.4968	45.861	886.1	0.4990	47.480	877.4	0.5008
11	43.112	883.7	0.4656	45.794	888.9	0.4678	47.469	891.0	0.4695
12	42.869	880.4	0.4376	45.565	891.1	0.4397	47.295	904.6	0.4414
13	42.530	874.0	0.4126	45.230	891.7	0.4146	47.011	917.3	0.4163
14	42.120	865.2	0.3902	44.804	889.2	0.3921	46.626	927.7	0.3937
15	41.636	854.2	0.3705	44.283	883.6	0.3722	46.134	935.2	0.3737
16	41.030	840.3	0.3533	43.611	873.8	0.3549	45.475	938.5	0.3561
17	40.112	824.6	0.3376	42.601	860.2	0.3391	44.457	936.4	0.3402
18	38.818	806.1	0.3229	41.184	842.4	0.3243	43.001	926.4	0.3253
19	37.066	783.4	0.3095	39.266	819.0	0.3109	40.999	905.3	0.3118
20	34.605	756.3	0.2974	36.588	789.4	0.2988	38.189	873.1	0.2997
21	30.994	725.2	0.2872	32.710	754.5	0.2886	34.123	829.4	0.2893
22	25.779	690.9	0.2789	27.174	714.6	0.2803	28.341	775.5	0.2810
23	19.246	655.9	0.2727	20.292	673.5	0.2742	21.174	717.5	0.2749
24	7.536	595.8	0.2681	7.937	603.1	0.2696	8.282	619.3	0.2704

Table 4-25. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C8

	Assembly Number C8								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.173	623.5	0.7396	2.768	639.4	0.7396
2	0.000		0.7396	4.125	812.1	0.7396	9.846	891.6	0.7396
3	0.000		0.7396	5.907	948.3	0.7396	13.396	1024.2	0.7396
4	0.000		0.7396	7.121	1052.8	0.7361	15.157	986.4	0.7273
5	0.000		0.7184	7.870	1031.3	0.6906	15.942	988.9	0.6786
6	0.000	Data Not	0.6688	8.357	1071.1	0.6348	16.396	986.7	0.6237
7	0.000	Required	0.6226	8.500	1083.0	0.5808	16.514	984.9	0.5714
8	0.000		0.5786	8.465	1080.1	0.5318	16.493	985.9	0.5241
9	0.000		0.5402	8.287	1065.2	0.4894	16.388	991.0	0.4826
10	0.000		0.5071	8.034	1044.5	0.4531	16.243	998.5	0.4465
11	0.000		0.4784	7.756	1022.2	0.4225	16.064	1005.5	0.4151
12	0.000		0.4533	7.481	1000.6	0.3964	15.873	1011.5	0.3878
13	0.000		0.4309	7.219	980.5	0.3740	15.682	1016.5	0.3639
14	0.000		0.4105	6.969	961.8	0.3547	15.490	1020.7	0.3427
15	0.000		0.3918	6.725	943.8	0.3378	15.319	1026.0	0.3239
16	0.000		0.3746	6.477	925.9	0.3231	15.156	1032.1	0.3071
17	0.000		0.3590	6.216	907.5	0.3102	14.867	1030.1	0.2919
18	0.000		0.3449	5.925	887.4	0.2988	14.467	1022.2	0.2783
19	0.000		0.3324	5.578	864.1	0.2889	13.910	1007.2	0.2663
20	0.000		0.3216	5.142	835.7	0.2803	13.071	979.1	0.2557
21	0.000		0.3123	4.580	800.5	0.2728	11.800	931.6	0.2465
22	0.000		0.3049	3.815	755.1	0.2667	9.893	860.2	0.2389
23	0.000		0.2993	2.852	701.5	0.2619	7.378	772.3	0.2331
24	0.000		0.2961	1.319	623.6	0.2591	3.378	650.6	0.2295

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.397	601.1	0.7396	4.368	597.5	0.7396	4.853	600.2	0.7396
2	12.165	726.3	0.7396	15.478	698.5	0.7396	17.113	706.9	0.7396
3	16.388	781.7	0.7396	20.456	733.9	0.7396	22.503	748.6	0.7396
4	18.548	776.7	0.7309	22.942	721.3	0.7347	25.184	737.5	0.7361
5	19.633	798.9	0.6889	24.210	728.8	0.6990	26.556	746.8	0.7030
6	20.342	818.4	0.6410	25.061	734.6	0.6577	27.465	752.0	0.6642
7	20.673	835.0	0.5945	25.546	740.9	0.6171	28.001	756.6	0.6257
8	20.805	847.2	0.5512	25.854	748.2	0.5792	28.368	761.9	0.5894
9	20.784	854.0	0.5119	26.032	756.6	0.5446	28.611	767.9	0.5559
10	20.660	855.7	0.4763	26.119	765.6	0.5131	28.757	773.3	0.5251
11	20.458	853.8	0.4444	26.132	774.9	0.4847	28.821	778.0	0.4970
12	20.209	849.1	0.4162	26.082	783.5	0.4591	28.822	782.8	0.4713
13	19.932	842.3	0.3911	25.978	791.1	0.4357	28.840	794.3	0.4481
14	19.626	833.2	0.3687	25.809	797.2	0.4144	29.032	829.3	0.4274
15	19.310	821.9	0.3488	25.579	801.1	0.3947	29.252	875.3	0.4080
16	18.977	808.8	0.3308	25.275	802.4	0.3765	29.404	924.7	0.3895
17	18.511	795.4	0.3147	24.792	801.6	0.3599	29.218	958.5	0.3722
18	17.941	782.8	0.3005	24.157	798.7	0.3449	28.683	970.1	0.3561
19	17.218	770.6	0.2880	23.308	793.1	0.3316	27.709	955.6	0.3412
20	16.187	756.8	0.2772	22.053	783.2	0.3199	26.155	921.7	0.3281
21	14.645	737.7	0.2680	20.111	765.9	0.3101	23.778	874.7	0.3170
22	12.310	708.5	0.2604	17.069	736.2	0.3022	20.143	814.7	0.3082
23	9.176	668.3	0.2544	12.832	692.1	0.2960	15.153	744.5	0.3014
24	3.990	596.8	0.2462	5.232	604.0	0.2813	6.072	623.3	0.2874

Table 4-25. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C8

	Assembly Number C8								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	5.295	603.0	0.7396	5.361	639.7	0.7396	6.056	642.7	0.7396
2	18.580	715.0	0.7396	18.799	863.3	0.7396	20.989	856.8	0.7396
3	24.419	769.2	0.7396	24.698	968.1	0.7396	27.374	938.7	0.7396
4	27.507	780.8	0.7369	27.814	946.5	0.7366	30.639	900.2	0.7347
5	29.101	805.4	0.7052	29.417	961.1	0.7049	32.265	903.7	0.7031
6	30.192	826.2	0.6678	30.507	959.5	0.6674	33.332	900.2	0.6657
7	30.802	834.8	0.6301	31.113	953.0	0.6297	33.925	898.3	0.6280
8	31.208	839.4	0.5941	31.514	944.9	0.5936	34.326	898.3	0.5917
9	31.474	842.1	0.5605	31.776	938.5	0.5600	34.593	899.0	0.5579
10	31.652	845.9	0.5296	31.949	930.6	0.5291	34.760	898.1	0.5268
11	31.791	854.9	0.5013	32.081	919.6	0.5008	34.868	894.6	0.4984
12	31.859	863.0	0.4753	32.141	907.2	0.4748	34.887	888.5	0.4724
13	32.004	878.5	0.4518	32.276	892.0	0.4513	34.963	879.8	0.4489
14	32.261	886.6	0.4305	32.523	877.0	0.4300	35.137	869.2	0.4277
15	32.604	902.1	0.4107	32.854	859.4	0.4103	35.381	856.7	0.4082
16	32.818	910.0	0.3919	33.055	840.7	0.3915	35.487	843.4	0.3896
17	32.669	914.7	0.3742	32.893	822.5	0.3739	35.222	829.1	0.3723
18	32.098	910.1	0.3578	32.309	804.7	0.3575	34.525	813.7	0.3561
19	31.095	906.4	0.3429	31.291	784.6	0.3426	33.366	795.0	0.3416
20	29.362	883.8	0.3296	29.541	762.5	0.3294	31.439	772.0	0.3285
21	26.674	846.0	0.3182	26.829	732.3	0.3180	28.482	741.4	0.3174
22	22.595	795.0	0.3090	22.719	695.1	0.3090	24.052	703.2	0.3085
23	17.027	733.3	0.3020	17.119	658.5	0.3019	18.096	662.9	0.3016
24	6.780	622.5	0.2889	6.813	595.5	0.2889	7.169	597.5	0.2891

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	6.659	625.3	0.7396	7.110	613.7	0.7396	7.343	604.2	0.7396
2	22.812	778.1	0.7396	24.128	729.9	0.7396	24.790	694.6	0.7396
3	29.568	830.4	0.7396	31.128	765.8	0.7396	31.901	719.6	0.7396
4	32.976	805.7	0.7349	34.633	747.0	0.7356	35.443	703.6	0.7360
5	34.690	816.6	0.7041	36.412	755.3	0.7058	37.252	709.4	0.7068
6	35.830	825.8	0.6675	37.617	763.6	0.6703	38.495	716.8	0.6720
7	36.504	836.1	0.6304	38.371	774.0	0.6341	39.303	727.4	0.6366
8	36.987	846.6	0.5945	38.946	786.2	0.5989	39.949	741.6	0.6021
9	37.325	855.9	0.5608	39.378	798.8	0.5657	40.459	757.5	0.5695
10	37.534	861.4	0.5294	39.668	809.9	0.5347	40.826	773.6	0.5388
11	37.654	863.0	0.5008	39.848	818.2	0.5060	41.076	788.5	0.5104
12	37.662	861.5	0.4745	39.902	824.6	0.4795	41.192	802.0	0.4840
13	37.704	857.0	0.4508	39.969	828.1	0.4555	41.311	813.4	0.4599
14	37.826	850.2	0.4293	40.098	829.1	0.4337	41.480	822.4	0.4379
15	38.003	841.6	0.4096	40.266	827.8	0.4136	41.675	828.4	0.4176
16	38.037	832.4	0.3909	40.281	825.1	0.3947	41.710	833.0	0.3985
17	37.691	822.1	0.3736	39.907	821.2	0.3772	41.347	835.5	0.3807
18	36.896	809.9	0.3575	39.066	814.8	0.3609	40.500	834.1	0.3643
19	35.605	793.8	0.3429	37.692	803.4	0.3462	39.095	827.1	0.3495
20	33.501	772.6	0.3299	35.459	786.1	0.3331	36.794	811.9	0.3362
21	30.295	743.8	0.3188	32.051	759.6	0.3218	33.262	784.9	0.3249
22	25.523	706.0	0.3099	26.971	721.0	0.3128	27.983	743.4	0.3156
23	19.166	664.1	0.3030	20.225	675.0	0.3058	20.969	691.0	0.3085
24	7.556	597.6	0.2908	7.940	601.3	0.2938	8.210	606.6	0.2965

Table 4-25. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C8

	Assembly Number C8					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.413	567.9	0.7396	7.526	570.5	0.7396
2	24.989	584.5	0.7396	25.299	590.7	0.7396
3	32.134	588.9	0.7396	32.486	595.0	0.7396
4	35.693	589.3	0.7362	36.054	593.4	0.7364
5	37.516	590.8	0.7071	37.884	594.0	0.7076
6	38.776	592.7	0.6727	39.153	594.8	0.6734
7	39.606	595.2	0.6374	39.999	596.3	0.6386
8	40.277	597.9	0.6033	40.691	598.1	0.6048
9	40.815	601.1	0.5710	41.256	600.5	0.5730
10	41.210	604.2	0.5408	41.680	603.1	0.5432
11	41.488	607.4	0.5128	41.988	605.8	0.5156
12	41.631	610.4	0.4868	42.162	608.6	0.4901
13	41.777	613.5	0.4631	42.336	611.1	0.4669
14	41.970	616.2	0.4415	42.557	613.6	0.4456
15	42.189	618.9	0.4215	42.801	615.9	0.4258
16	42.245	621.3	0.4025	42.882	618.1	0.4071
17	41.901	623.5	0.3850	42.562	620.3	0.3898
18	41.066	624.9	0.3687	41.746	622.0	0.3737
19	39.662	625.0	0.3540	40.348	622.6	0.3591
20	37.346	623.3	0.3407	38.023	621.8	0.3460
21	33.775	618.8	0.3294	34.412	618.1	0.3348
22	28.416	609.7	0.3201	28.963	610.0	0.3255
23	21.281	596.2	0.3127	21.681	596.9	0.3178
24	8.310	572.6	0.3000	8.439	572.9	0.3044

Table 4-26. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C9

	Assembly Number C9								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.061	617.1	0.7396	2.825	648.4	0.7396
2	0.000		0.7396	3.758	786.3	0.7396	10.288	950.2	0.7396
3	0.000		0.7396	5.544	919.0	0.7396	14.397	1138.6	0.7396
4	0.000		0.7396	6.829	1026.7	0.7396	16.394	1202.7	0.7167
5	0.000		0.7396	7.562	1093.2	0.6995	16.946	1084.8	0.6653
6	0.000	Data Not	0.7067	7.911	1034.6	0.6493	16.877	1053.2	0.6118
7	0.000	Required	0.6639	8.074	1047.7	0.5988	16.648	1024.5	0.5620
8	0.000		0.6243	8.141	1053.2	0.5513	16.420	1003.4	0.5171
9	0.000		0.5866	8.011	1042.6	0.5081	16.147	993.4	0.4769
10	0.000		0.5528	7.775	1023.7	0.4712	15.889	991.9	0.4421
11	0.000		0.5228	7.471	999.8	0.4396	15.579	991.4	0.4115
12	0.000		0.4958	7.148	975.2	0.4127	15.256	991.4	0.3849
13	0.000		0.4715	6.838	952.1	0.3898	14.945	991.4	0.3617
14	0.000		0.4487	6.556	931.6	0.3702	14.653	990.7	0.3414
15	0.000		0.4272	6.304	913.7	0.3531	14.373	988.7	0.3235
16	0.000		0.4071	6.077	897.9	0.3383	14.086	984.6	0.3076
17	0.000		0.3887	5.862	883.1	0.3250	13.765	977.3	0.2935
18	0.000		0.3721	5.631	867.6	0.3135	13.365	965.7	0.2809
19	0.000		0.3573	5.340	848.5	0.3031	12.806	947.8	0.2697
20	0.000		0.3444	4.943	823.1	0.2940	11.980	919.7	0.2597
21	0.000		0.3336	4.394	789.2	0.2861	10.744	876.6	0.2512
22	0.000		0.3249	3.619	743.8	0.2796	8.885	813.0	0.2442
23	0.000		0.3185	2.663	691.4	0.2747	6.504	736.4	0.2389
24	0.000		0.3149	1.224	619.0	0.2717	2.974	636.7	0.2355

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.749	621.6	0.7396	5.348	623.4	0.7396	6.222	634.7	0.7396
2	13.693	817.6	0.7396	19.047	797.6	0.7396	21.758	820.4	0.7396
3	18.833	913.4	0.7396	25.420	863.1	0.7396	28.726	889.8	0.7396
4	21.448	908.9	0.7172	28.519	837.9	0.7186	32.101	865.8	0.7190
5	22.431	946.9	0.6700	29.692	846.9	0.6761	33.428	882.0	0.6782
6	22.674	975.5	0.6197	30.050	852.4	0.6303	33.881	892.1	0.6336
7	22.644	994.2	0.5711	30.129	857.6	0.5857	34.023	898.9	0.5899
8	22.508	1003.0	0.5259	30.134	864.4	0.5440	34.082	904.8	0.5486
9	22.232	1002.7	0.4850	30.044	873.5	0.5062	34.042	910.2	0.5110
10	21.892	994.9	0.4492	29.905	883.4	0.4729	33.931	913.3	0.4774
11	21.447	982.2	0.4179	29.646	892.7	0.4435	33.680	914.2	0.4476
12	20.952	966.2	0.3909	29.306	900.5	0.4174	33.328	912.9	0.4212
13	20.444	948.2	0.3674	28.918	906.6	0.3942	32.914	910.0	0.3978
14	19.932	928.6	0.3468	28.479	910.4	0.3735	32.439	906.1	0.3769
15	19.404	906.9	0.3287	27.967	911.2	0.3549	31.875	900.4	0.3581
16	18.838	883.2	0.3128	27.344	908.3	0.3383	31.176	892.2	0.3412
17	18.225	859.1	0.2986	26.595	901.3	0.3233	30.319	880.7	0.3260
18	17.568	838.5	0.2861	25.741	891.4	0.3097	29.322	865.7	0.3124
19	16.783	820.8	0.2750	24.687	878.0	0.2976	28.075	845.9	0.3002
20	15.708	801.7	0.2653	23.210	858.4	0.2869	26.337	819.9	0.2893
21	14.107	774.6	0.2570	20.950	827.3	0.2776	23.715	785.1	0.2800
22	11.692	735.1	0.2501	17.495	780.5	0.2701	19.777	741.1	0.2725
23	8.598	687.3	0.2449	13.004	721.8	0.2645	14.737	694.0	0.2668
24	3.707	603.8	0.2406	5.256	614.7	0.2575	5.880	607.2	0.2600

Table 4-26. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C9

	Assembly Number C9								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.992	637.2	0.7396	7.014	585.1	0.7396	7.243	585.7	0.7396
2	24.091	822.6	0.7396	24.155	637.2	0.7396	24.844	641.9	0.7396
3	31.590	895.4	0.7396	31.670	657.9	0.7396	32.523	662.9	0.7396
4	35.221	873.1	0.7192	35.311	656.3	0.7193	36.271	661.1	0.7203
5	36.676	888.9	0.6794	36.776	667.5	0.6796	37.835	672.0	0.6817
6	37.189	896.5	0.6358	37.298	677.7	0.6361	38.462	683.8	0.6397
7	37.355	899.5	0.5926	37.476	691.6	0.5931	38.754	696.8	0.5984
8	37.426	901.0	0.5516	37.559	705.7	0.5523	38.958	710.9	0.5593
9	37.397	902.4	0.5139	37.542	720.1	0.5148	39.058	724.8	0.5234
10	37.290	902.9	0.4803	37.444	731.1	0.4813	39.054	736.2	0.4912
11	37.039	902.9	0.4504	37.200	739.7	0.4515	38.875	744.1	0.4623
12	36.677	901.7	0.4239	36.842	744.7	0.4250	38.555	748.8	0.4364
13	36.248	899.8	0.4003	36.413	744.7	0.4015	38.140	750.5	0.4130
14	35.753	897.2	0.3793	35.918	744.7	0.3805	37.640	749.9	0.3919
15	35.160	893.6	0.3604	35.323	742.2	0.3615	37.023	747.2	0.3727
16	34.412	887.4	0.3433	34.571	737.2	0.3445	36.235	742.8	0.3553
17	33.477	877.8	0.3281	33.631	731.1	0.3292	35.244	736.5	0.3396
18	32.369	864.2	0.3144	32.516	722.5	0.3154	34.057	727.8	0.3254
19	30.964	845.2	0.3020	31.101	710.4	0.3030	32.566	718.7	0.3127
20	29.008	819.8	0.2911	29.134	697.4	0.2921	30.560	714.1	0.3019
21	26.080	785.4	0.2818	26.202	692.7	0.2828	27.507	700.0	0.2924
22	21.732	741.6	0.2742	21.869	710.4	0.2755	22.940	673.4	0.2847
23	16.212	693.4	0.2685	16.325	682.3	0.2699	17.098	640.8	0.2787
24	6.423	608.0	0.2619	6.462	601.7	0.2631	6.722	587.8	0.2706

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.563	593.5	0.7396	8.023	614.8	0.7396	8.426	638.8	0.7396
2	25.797	666.3	0.7396	27.122	731.2	0.7396	28.225	798.7	0.7396
3	33.715	695.6	0.7396	35.332	774.4	0.7396	36.616	845.3	0.7396
4	37.627	693.7	0.7215	39.401	761.9	0.7224	40.746	814.1	0.7228
5	39.337	709.4	0.6844	41.213	775.2	0.6865	42.589	821.0	0.6874
6	40.100	724.2	0.6441	42.044	784.2	0.6473	43.444	826.4	0.6486
7	40.513	737.7	0.6045	42.507	790.9	0.6085	43.936	833.0	0.6101
8	40.823	749.8	0.5669	42.865	797.3	0.5715	44.336	842.6	0.5733
9	41.015	760.3	0.5321	43.104	803.7	0.5372	44.628	854.9	0.5390
10	41.074	767.7	0.5007	43.204	809.3	0.5059	44.784	868.1	0.5077
11	40.927	771.4	0.4721	43.087	813.5	0.4774	44.726	882.3	0.4791
12	40.610	771.8	0.4463	42.788	815.9	0.4513	44.484	896.2	0.4530
13	40.174	769.3	0.4228	42.358	816.8	0.4276	44.108	909.5	0.4291
14	39.635	764.8	0.4013	41.811	815.7	0.4060	43.609	921.6	0.4073
15	38.965	758.6	0.3817	41.119	812.6	0.3862	42.956	931.6	0.3874
16	38.111	751.0	0.3640	40.227	807.4	0.3683	42.091	938.5	0.3694
17	37.038	741.7	0.3480	39.091	798.8	0.3521	40.962	940.3	0.3530
18	35.746	729.9	0.3334	37.705	786.2	0.3373	39.550	933.6	0.3381
19	34.120	715.0	0.3203	35.943	768.3	0.3240	37.718	915.8	0.3246
20	31.945	696.8	0.3090	33.588	745.2	0.3125	35.236	884.4	0.3130
21	28.693	676.0	0.2991	30.115	717.8	0.3025	31.578	840.8	0.3028
22	23.888	651.8	0.2911	25.039	685.6	0.2943	26.249	784.7	0.2946
23	17.778	625.4	0.2848	18.621	650.6	0.2879	19.530	722.8	0.2882
24	6.955	583.2	0.2761	7.262	593.3	0.2792	7.611	620.0	0.2796

Table 4-26. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C9

	Assembly Number C9					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.475	565.3	0.7396	8.549	566.5	0.7396
2	28.354	575.4	0.7396	28.549	578.8	0.7396
3	36.763	577.7	0.7396	36.981	581.2	0.7396
4	40.902	578.9	0.7229	41.128	581.5	0.7231
5	42.754	579.9	0.6876	42.987	582.1	0.6880
6	43.621	581.2	0.6490	43.864	583.0	0.6495
7	44.127	582.7	0.6107	44.386	584.4	0.6116
8	44.543	584.5	0.5742	44.820	586.0	0.5752
9	44.854	586.6	0.5401	45.151	587.8	0.5415
10	45.030	588.8	0.5091	45.351	589.9	0.5108
11	44.992	591.0	0.4807	45.337	592.0	0.4828
12	44.774	593.7	0.4549	45.143	594.1	0.4574
13	44.425	596.7	0.4314	44.822	596.6	0.4343
14	43.961	600.6	0.4101	44.386	599.1	0.4133
15	43.354	605.8	0.3907	43.813	602.1	0.3945
16	42.542	611.8	0.3734	43.040	605.6	0.3777
17	41.465	617.7	0.3577	42.007	609.5	0.3627
18	40.095	622.5	0.3434	40.676	613.1	0.3490
19	38.286	625.1	0.3305	38.894	615.5	0.3367
20	35.803	625.0	0.3192	36.418	616.1	0.3257
21	32.112	621.2	0.3092	32.705	614.1	0.3161
22	26.708	612.7	0.3010	27.228	607.6	0.3082
23	19.863	598.5	0.2943	20.249	595.6	0.3014
24	7.717	573.3	0.2846	7.840	572.4	0.2905

Table 4-27. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C10

	Assembly Number C10								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.483	641.5	0.7396	3.060	638.5	0.7396
2	0.000		0.7396	5.265	897.0	0.7396	10.949	889.0	0.7396
3	0.000		0.7396	7.458	1083.6	0.7396	14.708	1005.2	0.7396
4	0.000		0.7357	8.630	1094.1	0.7141	16.349	964.7	0.7160
5	0.000		0.6775	9.019	1127.7	0.6548	16.816	970.0	0.6606
6	0.000	Data Not	0.6191	9.021	1127.9	0.5952	16.829	970.8	0.6046
7	0.000	Required	0.5650	8.825	1110.8	0.5408	16.668	973.2	0.5533
8	0.000		0.5195	8.540	1086.4	0.4946	16.444	977.3	0.5086
9	0.000		0.4820	8.215	1059.3	0.4561	16.196	982.6	0.4702
10	0.000		0.4510	7.882	1032.2	0.4240	15.941	988.0	0.4369
11	0.000		0.4248	7.558	1006.6	0.3971	15.683	992.6	0.4078
12	0.000		0.4024	7.256	983.3	0.3742	15.427	995.9	0.3824
13	0.000		0.3828	6.982	962.7	0.3547	15.180	997.7	0.3599
14	0.000		0.3654	6.740	944.9	0.3376	14.948	998.4	0.3399
15	0.000		0.3496	6.529	929.7	0.3228	14.733	998.2	0.3220
16	0.000		0.3354	6.353	917.1	0.3096	14.538	996.8	0.3059
17	0.000		0.3224	6.186	905.4	0.2978	14.318	993.1	0.2914
18	0.000		0.3105	5.951	889.2	0.2873	13.959	984.5	0.2785
19	0.000		0.2998	5.634	867.8	0.2781	13.416	969.0	0.2671
20	0.000		0.2906	5.199	839.4	0.2700	12.588	942.7	0.2571
21	0.000		0.2831	4.597	801.6	0.2630	11.320	899.8	0.2485
22	0.000		0.2771	3.765	752.2	0.2574	9.407	834.5	0.2415
23	0.000		0.2726	2.773	697.3	0.2530	6.941	753.3	0.2359
24	0.000		0.2699	1.259	620.7	0.2503	3.137	642.4	0.2324

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.678	600.4	0.7396	4.943	609.5	0.7396	5.876	640.1	0.7396
2	13.266	726.1	0.7396	17.569	745.2	0.7396	20.487	844.0	0.7396
3	17.834	793.2	0.7396	23.233	799.9	0.7396	26.797	921.5	0.7396
4	20.165	808.4	0.7179	26.073	785.1	0.7227	29.915	893.3	0.7219
5	21.103	845.2	0.6684	27.258	796.0	0.6805	31.240	908.5	0.6811
6	21.489	875.6	0.6181	27.865	805.9	0.6369	31.910	915.4	0.6383
7	21.548	894.0	0.5711	28.431	829.1	0.5959	32.488	916.7	0.5974
8	21.458	905.5	0.5295	29.129	866.6	0.5586	33.174	915.4	0.5596
9	21.246	908.6	0.4927	29.352	888.0	0.5228	33.434	919.5	0.5236
10	20.953	905.3	0.4601	29.276	899.0	0.4897	33.415	925.8	0.4902
11	20.610	898.0	0.4309	29.073	906.1	0.4598	33.263	931.5	0.4602
12	20.265	890.5	0.4053	28.815	910.5	0.4332	33.036	935.0	0.4333
13	20.146	901.4	0.3841	28.707	911.1	0.4103	32.931	935.4	0.4101
14	20.663	967.9	0.3689	29.170	908.3	0.3920	33.336	928.8	0.3912
15	20.517	974.3	0.3491	29.284	921.7	0.3728	33.397	922.9	0.3720
16	20.019	946.6	0.3294	28.821	923.5	0.3531	32.893	918.4	0.3524
17	19.417	912.8	0.3117	28.094	917.1	0.3350	32.096	910.7	0.3346
18	18.699	882.2	0.2966	27.214	908.7	0.3194	31.105	898.6	0.3191
19	17.830	855.4	0.2836	26.061	894.3	0.3056	29.790	881.2	0.3053
20	16.660	828.2	0.2724	24.442	872.0	0.2935	27.936	856.7	0.2934
21	14.945	794.0	0.2631	22.018	838.0	0.2832	25.166	821.9	0.2832
22	12.401	748.1	0.2554	18.384	788.4	0.2749	21.048	775.7	0.2749
23	9.135	693.8	0.2493	13.659	726.6	0.2686	15.726	722.3	0.2685
24	3.892	605.1	0.2432	5.491	616.4	0.2604	6.271	618.8	0.2610

Table 4-27. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C10

	Assembly Number C10								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.706	643.6	0.7396	6.744	604.5	0.7396	7.150	606.8	0.7396
2	23.023	849.8	0.7396	23.138	705.3	0.7396	24.326	707.6	0.7396
3	29.929	934.3	0.7396	30.070	742.2	0.7396	31.541	747.3	0.7396
4	33.329	910.0	0.7212	33.488	737.2	0.7213	35.141	741.4	0.7228
5	34.788	927.3	0.6811	34.962	756.1	0.6814	36.772	760.9	0.6845
6	35.499	932.7	0.6386	35.688	775.4	0.6391	37.645	779.6	0.6437
7	36.061	930.6	0.5976	36.263	792.6	0.5982	38.357	797.5	0.6042
8	36.706	925.2	0.5595	36.920	808.7	0.5602	39.144	814.8	0.5671
9	36.958	924.2	0.5233	37.185	826.7	0.5240	39.539	832.5	0.5316
10	36.952	925.9	0.4898	37.189	840.7	0.4906	39.644	846.6	0.4984
11	36.817	928.1	0.4596	37.059	847.8	0.4605	39.570	854.5	0.4681
12	36.598	929.2	0.4327	36.841	849.3	0.4335	39.368	856.7	0.4406
13	36.488	928.5	0.4094	36.728	845.0	0.4101	39.236	854.0	0.4167
14	36.852	923.1	0.3902	37.086	836.5	0.3909	39.532	845.3	0.3968
15	36.891	920.3	0.3709	37.119	828.1	0.3715	39.501	836.4	0.3769
16	36.383	919.8	0.3516	36.604	818.3	0.3521	38.925	828.0	0.3573
17	35.558	916.1	0.3339	35.772	808.7	0.3345	38.018	817.8	0.3395
18	34.491	906.4	0.3185	34.695	795.2	0.3190	36.837	803.8	0.3239
19	33.042	889.4	0.3048	33.232	776.7	0.3054	35.235	785.5	0.3101
20	30.982	864.1	0.2929	31.155	754.8	0.2934	32.974	762.0	0.2979
21	27.910	828.2	0.2827	28.063	729.8	0.2832	29.650	733.4	0.2876
22	23.368	780.5	0.2745	23.497	700.9	0.2750	24.796	699.3	0.2792
23	17.519	725.0	0.2682	17.618	666.4	0.2687	18.601	663.6	0.2729
24	6.965	621.2	0.2609	7.001	598.6	0.2614	7.361	597.9	0.2656

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.717	621.2	0.7396	8.357	637.7	0.7396	8.741	634.9	0.7396
2	25.959	752.4	0.7396	27.775	805.1	0.7396	28.831	787.0	0.7396
3	33.572	807.0	0.7396	35.807	873.2	0.7396	37.070	839.7	0.7396
4	37.439	800.9	0.7239	39.905	856.8	0.7240	41.257	815.7	0.7244
5	39.283	827.4	0.6869	41.880	876.2	0.6877	43.276	825.5	0.6886
6	40.323	848.8	0.6473	42.979	885.0	0.6485	44.396	830.3	0.6498
7	41.160	865.2	0.6083	43.829	887.0	0.6097	45.262	833.9	0.6114
8	42.033	876.7	0.5714	44.698	886.4	0.5728	46.155	839.4	0.5745
9	42.505	887.1	0.5358	45.182	888.2	0.5371	46.682	849.3	0.5390
10	42.657	893.5	0.5025	45.348	890.3	0.5037	46.899	861.2	0.5056
11	42.589	894.3	0.4718	45.286	891.2	0.4730	46.889	873.6	0.4750
12	42.363	891.0	0.4441	45.055	890.4	0.4453	46.708	885.7	0.4472
13	42.171	882.9	0.4198	44.837	886.5	0.4209	46.533	896.2	0.4227
14	42.362	868.8	0.3994	44.966	877.2	0.4004	46.684	901.6	0.4020
15	42.223	854.5	0.3794	44.760	867.3	0.3803	46.498	906.6	0.3818
16	41.542	840.9	0.3599	44.011	857.3	0.3608	45.768	911.3	0.3623
17	40.514	825.5	0.3420	42.894	844.4	0.3431	44.655	912.3	0.3445
18	39.185	807.1	0.3264	41.442	827.0	0.3275	43.178	906.1	0.3289
19	37.397	784.5	0.3125	39.493	804.7	0.3137	41.159	888.8	0.3150
20	34.912	758.1	0.3004	36.801	776.9	0.3016	38.349	860.5	0.3028
21	31.321	727.9	0.2900	32.956	744.2	0.2913	34.328	820.1	0.2924
22	26.154	694.0	0.2817	27.489	707.3	0.2829	28.624	768.8	0.2840
23	19.627	659.6	0.2754	20.635	669.1	0.2768	21.496	713.4	0.2778
24	7.746	597.4	0.2682	8.134	601.7	0.2697	8.470	617.8	0.2708

Table 4-28. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C11

	Assembly Number C11								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.848	605.1	0.7396	2.646	650.3	0.7396
2	0.000		0.7396	2.969	733.3	0.7396	9.533	952.7	0.7396
3	0.000		0.7396	4.380	830.4	0.7396	13.327	1146.9	0.7396
4	0.000		0.7396	5.501	915.6	0.7396	15.180	1213.3	0.7186
5	0.000		0.7396	6.320	982.7	0.7247	15.819	1093.6	0.6727
6	0.000	Data Not	0.7396	6.884	1031.6	0.6864	15.913	1057.9	0.6256
7	0.000	Required	0.7068	7.261	983.7	0.6423	15.835	1024.5	0.5803
8	0.000		0.6699	7.496	1001.8	0.5969	15.739	1000.9	0.5376
9	0.000		0.6352	7.596	1009.6	0.5524	15.677	989.6	0.4974
10	0.000		0.6017	7.613	1010.9	0.5104	15.679	988.5	0.4600
11	0.000		0.5702	7.417	995.7	0.4742	15.492	989.2	0.4269
12	0.000		0.5413	7.142	974.7	0.4436	15.246	991.2	0.3983
13	0.000		0.5146	6.855	953.3	0.4175	14.997	993.8	0.3734
14	0.000		0.4895	6.584	933.6	0.3953	14.774	997.2	0.3516
15	0.000		0.4659	6.344	916.5	0.3763	14.583	1000.6	0.3325
16	0.000		0.4439	6.145	902.6	0.3598	14.375	1000.0	0.3156
17	0.000		0.4238	6.021	894.0	0.3455	14.180	995.0	0.3009
18	0.000		0.4059	5.958	889.7	0.3328	13.974	985.1	0.2878
19	0.000		0.3900	5.747	875.4	0.3208	13.540	969.7	0.2757
20	0.000		0.3764	5.357	849.6	0.3101	12.737	942.1	0.2649
21	0.000		0.3649	4.773	812.4	0.3008	11.468	898.0	0.2555
22	0.000		0.3558	3.943	762.5	0.2932	9.541	831.9	0.2477
23	0.000		0.3490	2.913	704.8	0.2873	7.030	750.7	0.2417
24	0.000		0.3451	1.334	624.3	0.2836	3.201	642.0	0.2381

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.258	600.0	0.7396	4.329	601.6	0.7396	5.159	630.7	0.7396
2	11.835	724.9	0.7396	15.562	717.7	0.7396	18.282	821.4	0.7396
3	16.349	784.3	0.7396	20.995	761.9	0.7396	24.385	900.0	0.7396
4	18.662	783.4	0.7226	23.722	748.7	0.7279	27.503	886.8	0.7266
5	19.653	809.8	0.6825	24.933	758.0	0.6938	28.920	909.0	0.6931
6	20.035	832.1	0.6410	25.495	765.6	0.6578	29.648	927.4	0.6571
7	20.176	849.5	0.6001	25.851	774.9	0.6216	30.065	934.2	0.6205
8	20.227	861.4	0.5605	26.148	785.6	0.5860	30.375	935.7	0.5841
9	20.242	867.7	0.5223	26.404	796.3	0.5513	30.633	935.9	0.5486
10	20.254	868.6	0.4859	26.614	805.2	0.5177	30.829	934.3	0.5146
11	20.056	867.6	0.4532	26.597	813.4	0.4873	30.795	932.4	0.4840
12	19.795	866.4	0.4244	26.485	820.2	0.4601	30.657	929.5	0.4566
13	19.555	867.2	0.3992	26.356	825.3	0.4357	30.495	925.8	0.4321
14	19.331	867.1	0.3769	26.214	829.1	0.4136	30.306	920.6	0.4099
15	19.067	861.1	0.3567	25.998	831.3	0.3932	30.027	913.6	0.3896
16	18.678	846.5	0.3384	25.609	831.3	0.3746	29.549	903.9	0.3711
17	18.240	827.3	0.3219	25.100	828.0	0.3575	28.916	890.5	0.3542
18	17.788	808.3	0.3074	24.519	822.1	0.3421	28.181	874.2	0.3391
19	17.124	790.9	0.2943	23.669	813.6	0.3282	27.140	854.4	0.3255
20	16.075	772.8	0.2831	22.331	800.5	0.3162	25.550	828.9	0.3137
21	14.475	749.1	0.2734	20.243	778.9	0.3060	23.105	794.3	0.3036
22	12.059	715.3	0.2655	17.015	744.4	0.2978	19.394	749.7	0.2955
23	8.889	672.2	0.2595	12.668	696.9	0.2916	14.478	700.4	0.2894
24	3.829	597.7	0.2519	5.116	605.6	0.2796	5.775	609.8	0.2786

Table 4-28. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C11

	Assembly Number C11								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	5.602	603.1	0.7396	5.637	600.8	0.7396	6.068	609.9	0.7396
2	19.752	715.4	0.7396	19.862	698.4	0.7396	21.194	727.6	0.7396
3	26.293	768.2	0.7396	26.433	740.8	0.7396	28.038	766.7	0.7396
4	29.716	768.9	0.7279	29.875	737.2	0.7280	31.579	747.7	0.7293
5	31.364	794.1	0.6959	31.537	754.8	0.6962	33.288	753.5	0.6987
6	32.416	831.0	0.6614	32.597	765.0	0.6618	34.372	756.5	0.6653
7	32.977	847.9	0.6255	33.166	775.4	0.6260	34.976	760.9	0.6304
8	33.373	858.2	0.5894	33.571	787.2	0.5899	35.423	766.2	0.5951
9	33.697	866.2	0.5538	33.902	796.6	0.5545	35.795	771.4	0.5603
10	33.965	875.0	0.5197	34.174	802.0	0.5204	36.098	775.4	0.5268
11	34.001	883.7	0.4889	34.213	806.0	0.4897	36.156	777.8	0.4962
12	33.882	886.1	0.4610	34.094	806.0	0.4617	36.044	778.7	0.4684
13	33.746	889.3	0.4362	33.955	802.0	0.4369	35.896	777.5	0.4434
14	33.621	897.4	0.4139	33.825	795.2	0.4146	35.743	774.6	0.4209
15	33.588	929.0	0.3941	33.783	783.3	0.3947	35.658	769.1	0.4008
16	33.144	933.5	0.3753	33.333	775.4	0.3758	35.165	763.7	0.3817
17	32.417	921.2	0.3578	32.597	763.8	0.3584	34.377	757.1	0.3642
18	31.541	903.1	0.3421	31.710	749.8	0.3426	33.418	748.2	0.3483
19	30.314	879.7	0.3281	30.472	736.0	0.3286	32.082	736.2	0.3341
20	28.484	850.6	0.3159	28.628	718.9	0.3164	30.110	720.7	0.3218
21	25.707	811.9	0.3056	25.833	697.4	0.3061	27.144	700.7	0.3114
22	21.551	762.9	0.2973	21.655	672.0	0.2978	22.735	674.4	0.3029
23	16.104	708.3	0.2910	16.180	640.9	0.2915	16.973	643.0	0.2966
24	6.372	612.7	0.2807	6.399	589.3	0.2811	6.676	589.5	0.2859

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	6.434	598.6	0.7396	6.702	591.1	0.7396	6.834	584.3	0.7396
2	22.288	683.5	0.7396	23.069	656.1	0.7396	23.448	633.9	0.7396
3	29.330	708.2	0.7396	30.240	673.4	0.7396	30.675	645.5	0.7396
4	32.945	694.8	0.7302	33.900	663.1	0.7310	34.349	637.4	0.7312
5	34.709	700.7	0.7009	35.699	667.1	0.7023	36.161	639.7	0.7030
6	35.847	706.5	0.6687	36.878	671.8	0.6710	37.359	643.0	0.6721
7	36.523	714.3	0.6351	37.612	678.4	0.6384	38.126	648.9	0.6399
8	37.049	722.9	0.6010	38.210	686.8	0.6055	38.767	656.6	0.6076
9	37.498	731.5	0.5673	38.738	696.0	0.5728	39.347	666.0	0.5756
10	37.862	738.3	0.5347	39.177	704.9	0.5412	39.840	675.9	0.5446
11	37.970	743.9	0.5046	39.356	713.5	0.5121	40.075	686.3	0.5163
12	37.897	748.4	0.4773	39.348	721.4	0.4854	40.123	696.9	0.4903
13	37.778	751.7	0.4525	39.284	728.1	0.4612	40.111	706.9	0.4666
14	37.643	753.8	0.4300	39.192	733.5	0.4390	40.067	716.2	0.4448
15	37.560	754.0	0.4097	39.138	737.1	0.4187	40.053	724.0	0.4248
16	37.072	754.6	0.3906	38.675	740.2	0.3997	39.632	732.4	0.4061
17	36.277	753.8	0.3729	37.897	742.3	0.3820	38.889	739.4	0.3886
18	35.284	749.9	0.3569	36.899	741.7	0.3659	37.912	743.6	0.3726
19	33.883	742.5	0.3425	35.463	737.3	0.3514	36.478	744.0	0.3580
20	31.802	730.2	0.3300	33.311	728.5	0.3387	34.300	738.8	0.3453
21	28.670	712.0	0.3194	30.056	713.5	0.3279	30.980	725.8	0.3344
22	24.012	685.4	0.3107	25.190	688.8	0.3191	25.986	700.9	0.3256
23	17.913	651.0	0.3041	18.787	654.1	0.3122	19.381	663.3	0.3185
24	7.001	591.8	0.2928	7.302	592.7	0.3002	7.505	595.3	0.3059

Table 4-28. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C11

	Assembly Number C11					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.955	574.4	0.7396	7.156	579.4	0.7396
2	23.797	604.1	0.7396	24.357	617.1	0.7396
3	31.087	612.5	0.7396	31.724	625.4	0.7396
4	34.791	610.7	0.7316	35.444	619.6	0.7321
5	36.629	613.7	0.7037	37.293	620.6	0.7046
6	37.855	616.9	0.6732	38.530	621.6	0.6746
7	38.656	620.7	0.6415	39.355	623.8	0.6435
8	39.336	625.2	0.6097	40.066	626.6	0.6123
9	39.957	629.9	0.5783	40.725	630.1	0.5815
10	40.489	634.5	0.5479	41.299	634.0	0.5519
11	40.764	639.1	0.5202	41.617	638.0	0.5249
12	40.850	643.6	0.4949	41.747	642.1	0.5004
13	40.875	648.0	0.4719	41.815	646.1	0.4781
14	40.867	652.3	0.4508	41.848	650.0	0.4577
15	40.884	656.0	0.4314	41.901	653.4	0.4390
16	40.495	659.8	0.4132	41.551	657.1	0.4215
17	39.780	663.2	0.3964	40.871	660.5	0.4053
18	38.817	664.9	0.3808	39.929	662.5	0.3902
19	37.375	663.9	0.3665	38.488	662.6	0.3764
20	35.162	659.7	0.3540	36.244	659.6	0.3641
21	31.773	651.4	0.3432	32.780	652.5	0.3535
22	26.658	637.2	0.3343	27.522	639.0	0.3447
23	19.869	616.0	0.3270	20.506	618.1	0.3372
24	7.660	578.8	0.3130	7.866	579.8	0.3219

Table 4-29. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C12

	Assembly Number C12								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.088	618.7	0.7396	2.721	641.4	0.7396
2	0.000		0.7396	3.810	789.9	0.7396	9.623	898.1	0.7396
3	0.000		0.7396	5.422	909.3	0.7396	13.038	1034.4	0.7396
4	0.000		0.7396	6.532	1000.8	0.7396	14.714	1080.9	0.7296
5	0.000		0.7251	7.228	981.2	0.7044	15.394	995.5	0.6844
6	0.000	Data Not	0.6785	7.674	1015.7	0.6550	15.719	987.1	0.6337
7	0.000	Required	0.6342	8.023	1043.6	0.6042	15.990	981.7	0.5837
8	0.000		0.5920	8.342	1069.8	0.5553	16.257	978.1	0.5366
9	0.000		0.5540	8.318	1067.8	0.5096	16.304	983.0	0.4932
10	0.000		0.5208	8.144	1053.5	0.4698	16.294	994.4	0.4548
11	0.000		0.4918	7.917	1035.0	0.4360	16.195	1003.4	0.4214
12	0.000		0.4660	7.686	1016.6	0.4073	16.071	1011.0	0.3924
13	0.000		0.4428	7.464	999.3	0.3830	15.939	1017.4	0.3672
14	0.000		0.4209	7.240	982.1	0.3620	15.789	1022.7	0.3451
15	0.000		0.3999	7.011	964.9	0.3438	15.618	1026.9	0.3255
16	0.000		0.3802	6.769	947.0	0.3280	15.405	1029.0	0.3081
17	0.000		0.3620	6.509	928.2	0.3142	15.121	1027.3	0.2927
18	0.000		0.3459	6.222	907.9	0.3022	14.734	1020.0	0.2789
19	0.000		0.3318	5.885	884.7	0.2916	14.189	1005.2	0.2668
20	0.000		0.3195	5.463	856.5	0.2824	13.389	978.8	0.2560
21	0.000		0.3093	4.923	821.8	0.2745	12.209	935.9	0.2467
22	0.000		0.3011	4.142	774.2	0.2678	10.345	867.7	0.2389
23	0.000		0.2949	3.102	715.0	0.2625	7.753	779.0	0.2329
24	0.000		0.2915	1.416	628.3	0.2594	3.523	652.8	0.2292

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.665	623.1	0.7396	5.646	639.5	0.7396	6.462	629.5	0.7396
2	13.138	827.3	0.7396	19.702	861.9	0.7396	22.225	799.5	0.7396
3	17.727	938.4	0.7396	25.823	949.9	0.7396	28.925	865.5	0.7396
4	20.192	946.3	0.7250	28.843	915.7	0.7191	32.218	844.6	0.7200
5	21.473	1002.2	0.6809	30.258	922.7	0.6765	33.778	859.4	0.6791
6	22.250	1046.5	0.6304	31.057	923.8	0.6282	34.659	867.9	0.6327
7	22.799	1074.8	0.5794	31.653	926.3	0.5799	35.304	873.0	0.5859
8	23.177	1086.3	0.5310	32.162	933.1	0.5348	35.857	877.7	0.5417
9	23.215	1085.4	0.4871	32.421	944.8	0.4940	36.162	882.5	0.5014
10	23.091	1073.5	0.4487	32.540	957.9	0.4582	36.308	885.4	0.4657
11	22.809	1054.8	0.4155	32.508	971.6	0.4269	36.285	886.3	0.4345
12	22.445	1030.9	0.3871	32.367	983.9	0.3996	36.136	885.5	0.4070
13	22.038	1004.1	0.3626	32.141	994.0	0.3755	35.888	883.2	0.3828
14	21.591	976.0	0.3412	31.819	1001.1	0.3543	35.534	879.8	0.3613
15	21.113	947.8	0.3225	31.386	1003.7	0.3353	35.056	875.0	0.3421
16	20.590	920.3	0.3060	30.811	1000.7	0.3184	34.414	868.0	0.3250
17	19.999	893.9	0.2913	30.066	992.0	0.3032	33.573	858.1	0.3096
18	19.346	871.6	0.2783	29.183	979.2	0.2894	32.560	844.8	0.2957
19	18.550	851.1	0.2667	28.057	961.1	0.2770	31.255	826.9	0.2832
20	17.467	828.7	0.2565	26.463	933.7	0.2660	29.417	803.1	0.2719
21	15.881	797.5	0.2476	24.048	891.1	0.2564	26.659	770.8	0.2621
22	13.436	755.0	0.2402	20.359	831.0	0.2484	22.505	729.1	0.2540
23	10.123	705.4	0.2344	15.451	760.0	0.2422	17.057	683.5	0.2478
24	4.377	610.9	0.2306	6.364	630.1	0.2375	6.952	604.5	0.2427

Table 4-29. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C12

	Assembly Number C12								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.141	627.6	0.7396	7.156	576.7	0.7396	7.353	581.9	0.7396
2	24.282	786.9	0.7396	24.325	610.7	0.7396	24.872	624.1	0.7396
3	31.474	851.6	0.7396	31.525	620.7	0.7396	32.152	634.1	0.7396
4	35.021	835.1	0.7208	35.076	618.4	0.7208	35.732	628.4	0.7215
5	36.716	851.0	0.6814	36.775	622.6	0.6815	37.457	631.2	0.6829
6	37.663	859.0	0.6363	37.727	628.0	0.6365	38.442	634.6	0.6387
7	38.339	862.7	0.5905	38.410	635.5	0.5908	39.169	639.3	0.5940
8	38.913	865.3	0.5471	38.992	644.2	0.5475	39.800	644.6	0.5517
9	39.239	867.8	0.5072	39.327	654.1	0.5077	40.191	650.6	0.5130
10	39.397	869.3	0.4717	39.495	665.2	0.4723	40.416	656.8	0.4787
11	39.384	870.5	0.4404	39.491	675.4	0.4411	40.469	663.0	0.4486
12	39.237	870.8	0.4128	39.352	684.6	0.4137	40.383	668.9	0.4222
13	38.988	870.6	0.3885	39.107	689.2	0.3895	40.185	674.1	0.3990
14	38.629	870.0	0.3669	38.751	692.7	0.3680	39.865	678.2	0.3781
15	38.138	868.4	0.3476	38.261	693.9	0.3488	39.400	681.0	0.3595
16	37.461	864.2	0.3304	37.583	692.7	0.3316	38.736	682.6	0.3426
17	36.557	856.6	0.3148	36.677	690.4	0.3160	37.831	682.7	0.3274
18	35.444	844.6	0.3007	35.561	686.9	0.3019	36.702	681.2	0.3134
19	33.993	827.5	0.2881	34.105	681.1	0.2892	35.215	677.7	0.3007
20	31.947	803.7	0.2767	32.053	674.3	0.2778	33.109	671.7	0.2893
21	28.902	772.1	0.2668	28.998	663.0	0.2679	29.970	662.4	0.2794
22	24.352	730.5	0.2585	24.435	648.6	0.2597	25.274	647.9	0.2712
23	18.436	684.2	0.2522	18.497	624.8	0.2533	19.129	625.9	0.2647
24	7.464	605.4	0.2469	7.485	583.1	0.2478	7.699	583.2	0.2573

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.507	575.5	0.7396	7.624	572.9	0.7396	7.684	570.5	0.7396
2	25.294	604.8	0.7396	25.611	597.1	0.7396	25.771	589.8	0.7396
3	32.630	611.1	0.7396	32.987	602.0	0.7396	33.165	593.3	0.7396
4	36.229	607.9	0.7220	36.600	599.9	0.7223	36.782	591.8	0.7225
5	37.976	610.0	0.6838	38.361	601.4	0.6846	38.548	592.7	0.6850
6	38.991	612.9	0.6403	39.400	603.9	0.6415	39.597	594.3	0.6421
7	39.756	616.5	0.5964	40.195	607.1	0.5981	40.408	597.0	0.5990
8	40.433	620.9	0.5548	40.909	610.9	0.5571	41.142	600.4	0.5583
9	40.876	625.9	0.5170	41.394	615.4	0.5200	41.651	604.4	0.5214
10	41.155	631.1	0.4836	41.718	620.2	0.4872	42.002	609.0	0.4890
11	41.263	636.5	0.4544	41.874	625.3	0.4588	42.186	613.7	0.4610
12	41.233	642.0	0.4290	41.893	630.6	0.4341	42.235	618.8	0.4366
13	41.094	647.9	0.4067	41.804	636.0	0.4125	42.177	624.2	0.4155
14	40.836	654.1	0.3869	41.596	641.5	0.3935	42.001	629.7	0.3970
15	40.435	660.5	0.3694	41.244	646.8	0.3767	41.684	635.8	0.3807
16	39.833	666.8	0.3535	40.692	652.4	0.3618	41.168	642.1	0.3663
17	38.981	672.2	0.3392	39.887	657.6	0.3484	40.401	648.9	0.3535
18	37.887	675.9	0.3261	38.832	662.0	0.3362	39.381	655.1	0.3419
19	36.411	677.0	0.3140	37.380	664.7	0.3249	37.959	660.5	0.3312
20	34.286	675.0	0.3031	35.258	665.1	0.3146	35.854	663.6	0.3216
21	31.086	668.8	0.2936	32.028	661.7	0.3058	32.620	662.9	0.3135
22	26.259	655.5	0.2858	27.109	651.4	0.2986	27.655	654.6	0.3069
23	19.880	632.3	0.2792	20.538	630.4	0.2922	20.966	633.7	0.3006
24	7.949	584.8	0.2694	8.168	584.2	0.2803	8.311	585.4	0.2875

Table 4-29. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C12

	Assembly Number C12					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.809	574.9	0.7396	8.009	579.3	0.7396
2	26.121	604.3	0.7396	26.662	615.0	0.7396
3	33.577	612.5	0.7396	34.191	622.9	0.7396
4	37.227	611.1	0.7229	37.866	618.3	0.7234
5	39.024	614.6	0.6858	39.682	620.0	0.6869
6	40.108	618.6	0.6435	40.791	622.3	0.6453
7	40.960	623.3	0.6010	41.676	625.3	0.6036
8	41.737	628.2	0.5610	42.491	628.8	0.5643
9	42.292	633.5	0.5248	43.085	632.4	0.5287
10	42.684	638.3	0.4930	43.515	635.9	0.4972
11	42.904	642.5	0.4653	43.770	639.2	0.4699
12	42.986	646.4	0.4411	43.883	642.1	0.4460
13	42.959	650.1	0.4202	43.883	644.6	0.4251
14	42.816	654.1	0.4017	43.767	647.2	0.4067
15	42.535	658.4	0.3855	43.513	649.7	0.3904
16	42.058	663.1	0.3710	43.064	652.4	0.3759
17	41.321	666.7	0.3582	42.354	654.9	0.3630
18	40.315	668.4	0.3464	41.363	656.4	0.3511
19	38.880	666.8	0.3355	39.923	655.9	0.3402
20	36.730	661.4	0.3257	37.736	652.4	0.3302
21	33.412	651.3	0.3173	34.337	644.7	0.3216
22	28.312	635.4	0.3105	29.094	631.4	0.3147
23	21.439	614.2	0.3040	22.011	612.2	0.3078
24	8.473	579.5	0.2905	8.671	579.0	0.2941

Table 4-30. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C13

	Assembly Number C13								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.022	614.9	0.7396	2.675	642.5	0.7396
2	0.000		0.7396	3.585	774.4	0.7396	9.468	903.0	0.7396
3	0.000		0.7396	5.085	883.1	0.7396	12.837	1045.4	0.7396
4	0.000		0.7396	6.124	966.3	0.7396	14.513	1098.4	0.7307
5	0.000		0.7139	6.791	948.6	0.7158	15.247	1016.0	0.6875
6	0.000	Data Not	0.6642	7.186	978.0	0.6708	15.547	1009.3	0.6383
7	0.000	Required	0.6181	7.384	993.1	0.6225	15.660	1003.2	0.5885
8	0.000		0.5746	7.435	997.1	0.5758	15.679	1001.0	0.5418
9	0.000		0.5367	7.398	994.2	0.5325	15.681	1003.7	0.4993
10	0.000		0.5040	7.339	989.7	0.4941	15.716	1010.4	0.4614
11	0.000		0.4759	7.324	988.5	0.4604	15.739	1013.1	0.4281
12	0.000		0.4513	7.437	997.2	0.4307	15.859	1013.6	0.3991
13	0.000		0.4294	7.670	1015.4	0.4040	16.093	1013.7	0.3734
14	0.000		0.4100	7.678	1016.0	0.3798	16.128	1015.6	0.3502
15	0.000		0.3924	7.543	1005.4	0.3584	16.034	1018.5	0.3294
16	0.000		0.3762	7.328	988.8	0.3400	15.849	1020.7	0.3110
17	0.000		0.3612	7.068	969.1	0.3240	15.580	1020.0	0.2948
18	0.000		0.3473	6.781	947.9	0.3102	15.215	1014.5	0.2806
19	0.000		0.3339	6.450	924.0	0.2983	14.697	1001.2	0.2680
20	0.000		0.3216	6.005	892.9	0.2878	13.894	976.3	0.2569
21	0.000		0.3109	5.366	850.2	0.2790	12.623	934.0	0.2473
22	0.000		0.3023	4.442	792.1	0.2718	10.625	866.5	0.2394
23	0.000		0.2958	3.303	726.1	0.2662	7.959	779.2	0.2331
24	0.000		0.2921	1.522	633.4	0.2627	3.649	653.7	0.2293

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.904	643.4	0.7396	5.888	639.7	0.7396	6.834	641.3	0.7396
2	14.001	922.9	0.7396	20.452	855.7	0.7396	23.326	838.9	0.7396
3	18.760	1069.8	0.7396	26.623	936.0	0.7396	30.127	914.1	0.7396
4	21.196	1061.9	0.7184	29.531	899.6	0.7149	33.317	887.3	0.7153
5	22.368	1107.5	0.6717	30.824	905.7	0.6708	34.749	902.3	0.6725
6	22.920	1134.7	0.6189	31.442	909.1	0.6213	35.442	910.4	0.6245
7	23.140	1146.4	0.5664	31.794	915.9	0.5724	35.841	915.6	0.5767
8	23.144	1144.8	0.5185	32.030	927.9	0.5279	36.116	919.9	0.5328
9	23.036	1132.7	0.4763	32.209	943.1	0.4885	36.329	923.7	0.4935
10	22.885	1112.6	0.4397	32.344	958.5	0.4540	36.482	925.7	0.4588
11	22.673	1087.8	0.4082	32.414	973.9	0.4236	36.553	925.8	0.4283
12	22.508	1058.4	0.3812	32.488	987.1	0.3970	36.614	924.4	0.4014
13	22.419	1026.1	0.3578	32.578	997.2	0.3734	36.688	922.6	0.3776
14	22.124	994.2	0.3366	32.426	1005.3	0.3521	36.527	921.6	0.3561
15	21.685	962.0	0.3179	32.069	1010.0	0.3330	36.156	920.0	0.3369
16	21.133	929.0	0.3014	31.512	1009.7	0.3159	35.557	915.4	0.3199
17	20.488	896.4	0.2868	30.760	1003.6	0.3007	34.722	906.3	0.3045
18	19.778	867.6	0.2739	29.843	991.9	0.2870	33.688	893.6	0.2906
19	18.940	841.7	0.2625	28.677	973.6	0.2746	32.356	876.0	0.2782
20	17.804	815.6	0.2524	27.032	946.0	0.2635	30.467	850.7	0.2671
21	16.109	783.6	0.2436	24.524	903.6	0.2540	27.591	814.0	0.2574
22	13.547	743.1	0.2362	20.726	843.0	0.2460	23.271	764.7	0.2494
23	10.202	697.0	0.2304	15.757	769.7	0.2398	17.688	710.6	0.2432
24	4.466	608.7	0.2273	6.553	633.7	0.2354	7.281	614.9	0.2387

Table 4-30. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C13

	Assembly Number C13								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.566	633.2	0.7396	7.581	576.7	0.7396	7.800	584.5	0.7396
2	25.489	800.4	0.7396	25.533	611.9	0.7396	26.137	631.2	0.7396
3	32.791	867.3	0.7396	32.844	623.2	0.7396	33.545	643.4	0.7396
4	36.254	850.9	0.7161	36.313	622.6	0.7161	37.057	637.7	0.7170
5	37.852	871.0	0.6747	37.916	628.0	0.6748	38.697	641.7	0.6765
6	38.655	884.6	0.6280	38.725	634.4	0.6282	39.551	646.5	0.6309
7	39.129	894.0	0.5812	39.207	643.1	0.5815	40.087	652.3	0.5853
8	39.460	901.0	0.5377	39.548	654.1	0.5382	40.489	659.0	0.5432
9	39.715	906.4	0.4986	39.815	667.5	0.4992	40.820	666.0	0.5054
10	39.895	909.8	0.4639	40.008	682.3	0.4646	41.074	672.8	0.4720
11	39.987	912.5	0.4331	40.111	695.1	0.4341	41.233	679.1	0.4425
12	40.056	913.6	0.4061	40.188	704.5	0.4071	41.358	684.5	0.4165
13	40.133	914.0	0.3820	40.269	709.3	0.3831	41.475	688.6	0.3931
14	39.983	915.4	0.3604	40.120	710.4	0.3616	41.354	691.8	0.3720
15	39.615	915.8	0.3411	39.752	710.4	0.3423	41.003	693.7	0.3530
16	38.994	912.9	0.3237	39.129	708.1	0.3249	40.384	694.2	0.3359
17	38.097	905.0	0.3083	38.227	702.1	0.3094	39.474	693.3	0.3204
18	36.966	892.7	0.2943	37.092	697.4	0.2954	38.313	690.3	0.3064
19	35.493	875.2	0.2817	35.613	690.4	0.2828	36.791	685.4	0.2936
20	33.399	850.3	0.2704	33.510	680.0	0.2716	34.622	677.9	0.2822
21	30.212	814.0	0.2607	30.313	668.6	0.2618	31.326	666.9	0.2723
22	25.452	765.4	0.2526	25.537	650.8	0.2537	26.401	650.6	0.2642
23	19.336	710.4	0.2464	19.399	626.9	0.2474	20.044	627.3	0.2576
24	7.915	616.0	0.2417	7.936	583.1	0.2426	8.158	584.0	0.2511

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.967	576.9	0.7396	8.097	574.4	0.7396	8.165	572.0	0.7396
2	26.585	607.7	0.7396	26.934	601.0	0.7396	27.116	594.1	0.7396
3	34.057	614.9	0.7396	34.455	607.1	0.7396	34.659	598.5	0.7396
4	37.598	612.1	0.7175	38.017	605.0	0.7179	38.227	596.5	0.7182
5	39.268	615.0	0.6777	39.709	607.3	0.6785	39.927	597.8	0.6789
6	40.159	618.5	0.6328	40.631	610.5	0.6342	40.863	600.2	0.6349
7	40.742	623.0	0.5880	41.253	614.6	0.5901	41.504	603.4	0.5911
8	41.198	628.2	0.5468	41.753	619.3	0.5496	42.028	607.4	0.5509
9	41.587	633.9	0.5100	42.191	624.6	0.5134	42.494	612.2	0.5151
10	41.898	639.5	0.4775	42.552	629.9	0.4817	42.885	617.3	0.4838
11	42.115	645.2	0.4489	42.820	635.5	0.4539	43.184	622.6	0.4565
12	42.297	650.9	0.4238	43.052	640.9	0.4295	43.447	628.0	0.4325
13	42.474	656.9	0.4013	43.279	646.4	0.4078	43.705	633.3	0.4112
14	42.420	663.7	0.3812	43.277	652.2	0.3886	43.736	639.1	0.3923
15	42.140	670.9	0.3633	43.049	658.0	0.3714	43.543	645.3	0.3757
16	41.590	678.0	0.3472	42.547	663.4	0.3561	43.079	652.1	0.3609
17	40.733	683.5	0.3327	41.733	668.2	0.3423	42.304	659.1	0.3478
18	39.606	687.1	0.3193	40.637	671.8	0.3296	41.242	665.3	0.3357
19	38.089	687.6	0.3070	39.136	673.6	0.3178	39.766	669.8	0.3244
20	35.889	684.4	0.2959	36.929	672.8	0.3072	37.569	671.7	0.3143
21	32.516	676.4	0.2863	33.512	667.8	0.2981	34.140	669.5	0.3057
22	27.438	660.7	0.2783	28.326	655.6	0.2905	28.897	659.1	0.2986
23	20.824	635.1	0.2713	21.503	632.6	0.2835	21.945	636.1	0.2916
24	8.422	586.1	0.2626	8.652	585.3	0.2729	8.802	586.5	0.2798

Table 4-30. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C13

	Assembly Number C13					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.235	567.9	0.7396	8.354	571.1	0.7396
2	27.307	583.4	0.7396	27.627	591.7	0.7396
3	34.882	587.6	0.7396	35.244	596.1	0.7396
4	38.468	588.3	0.7184	38.846	594.9	0.7188
5	40.184	590.0	0.6795	40.575	596.1	0.6802
6	41.140	592.3	0.6357	41.549	597.7	0.6369
7	41.804	594.8	0.5923	42.236	599.7	0.5939
8	42.354	597.7	0.5524	42.812	602.0	0.5546
9	42.846	600.6	0.5171	43.332	604.5	0.5197
10	43.262	603.4	0.4861	43.777	607.1	0.4892
11	43.586	606.2	0.4592	44.130	609.7	0.4627
12	43.875	609.2	0.4356	44.445	612.1	0.4395
13	44.162	612.4	0.4147	44.757	614.3	0.4189
14	44.230	616.6	0.3963	44.851	616.7	0.4008
15	44.086	622.2	0.3801	44.738	619.5	0.3850
16	43.679	628.8	0.3658	44.369	622.9	0.3710
17	42.958	635.1	0.3531	43.688	626.6	0.3585
18	41.934	639.5	0.3412	42.697	629.6	0.3469
19	40.470	640.9	0.3301	41.249	631.1	0.3360
20	38.259	639.3	0.3199	39.029	630.3	0.3258
21	34.780	633.4	0.3111	35.508	626.4	0.3170
22	29.442	622.5	0.3038	30.074	617.7	0.3096
23	22.343	605.8	0.2965	22.814	603.2	0.3021
24	8.933	576.1	0.2839	9.090	575.4	0.2886

Table 4-31. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C14

	Assembly Number C14								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.062	617.2	0.7396	2.835	648.9	0.7396
2	0.000		0.7396	3.759	786.4	0.7396	10.323	952.7	0.7396
3	0.000		0.7396	5.544	919.0	0.7396	14.439	1142.3	0.7396
4	0.000		0.7396	6.829	1026.7	0.7396	16.434	1206.4	0.7165
5	0.000		0.7396	7.562	1093.2	0.6996	16.980	1087.4	0.6648
6	0.000	Data Not	0.7068	7.911	1034.6	0.6494	16.907	1055.5	0.6112
7	0.000	Required	0.6641	8.074	1047.7	0.5989	16.674	1026.4	0.5614
8	0.000		0.6245	8.141	1053.2	0.5514	16.444	1005.1	0.5164
9	0.000		0.5868	8.012	1042.7	0.5083	16.170	994.9	0.4764
10	0.000		0.5529	7.776	1023.8	0.4713	15.913	993.5	0.4414
11	0.000		0.5229	7.473	1000.0	0.4397	15.604	993.1	0.4109
12	0.000		0.4959	7.151	975.4	0.4128	15.282	993.1	0.3843
13	0.000		0.4716	6.842	952.4	0.3899	14.972	993.0	0.3612
14	0.000		0.4488	6.560	931.9	0.3702	14.681	992.4	0.3410
15	0.000		0.4273	6.310	914.1	0.3532	14.401	990.3	0.3231
16	0.000		0.4071	6.083	898.3	0.3383	14.115	986.2	0.3073
17	0.000		0.3887	5.869	883.6	0.3251	13.795	978.8	0.2931
18	0.000		0.3721	5.639	868.2	0.3135	13.395	967.2	0.2806
19	0.000		0.3572	5.348	849.0	0.3031	12.834	949.1	0.2694
20	0.000		0.3444	4.951	823.6	0.2940	12.001	920.6	0.2595
21	0.000		0.3335	4.402	789.7	0.2861	10.758	877.0	0.2510
22	0.000		0.3248	3.625	744.2	0.2796	8.900	813.5	0.2439
23	0.000		0.3185	2.667	691.7	0.2747	6.517	736.9	0.2386
24	0.000		0.3148	1.226	619.1	0.2717	2.980	636.9	0.2352

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.754	621.3	0.7396	5.349	623.2	0.7396	6.227	635.1	0.7396
2	13.709	815.9	0.7396	19.049	796.8	0.7396	21.771	821.7	0.7396
3	18.852	911.2	0.7396	25.422	862.2	0.7396	28.741	891.4	0.7396
4	21.466	907.0	0.7170	28.522	837.2	0.7186	32.116	867.1	0.7189
5	22.447	945.3	0.6698	29.696	846.3	0.6760	33.442	883.0	0.6780
6	22.690	974.2	0.6194	30.056	851.9	0.6302	33.895	893.0	0.6335
7	22.660	993.3	0.5709	30.136	857.2	0.5856	34.037	899.7	0.5898
8	22.524	1002.3	0.5257	30.143	864.1	0.5440	34.096	905.3	0.5486
9	22.250	1002.3	0.4849	30.055	873.1	0.5062	34.056	910.6	0.5109
10	21.911	994.4	0.4490	29.917	883.1	0.4729	33.946	913.6	0.4774
11	21.468	981.8	0.4178	29.661	892.4	0.4435	33.698	914.5	0.4476
12	20.974	965.8	0.3907	29.322	900.2	0.4174	33.347	913.2	0.4212
13	20.467	947.8	0.3672	28.935	906.3	0.3942	32.934	910.3	0.3978
14	19.956	928.2	0.3466	28.498	910.1	0.3735	32.460	906.3	0.3769
15	19.430	906.8	0.3286	27.987	910.9	0.3549	31.897	900.6	0.3580
16	18.866	883.2	0.3126	27.365	907.9	0.3384	31.199	892.4	0.3412
17	18.254	859.1	0.2985	26.618	901.0	0.3233	30.343	880.8	0.3260
18	17.598	838.5	0.2860	25.765	891.1	0.3098	29.348	865.9	0.3124
19	16.812	820.9	0.2749	24.711	877.8	0.2976	28.100	846.0	0.3002
20	15.732	802.0	0.2652	23.229	858.2	0.2870	26.359	820.2	0.2893
21	14.124	774.8	0.2569	20.962	827.0	0.2777	23.730	785.4	0.2801
22	11.709	735.2	0.2500	17.509	780.3	0.2702	19.794	741.3	0.2725
23	8.612	687.3	0.2448	13.016	721.7	0.2645	14.750	694.1	0.2668
24	3.713	603.8	0.2404	5.260	614.6	0.2575	5.885	607.3	0.2600

Table 4-31. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C14

	Assembly Number C14								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.000	637.5	0.7396	7.021	583.9	0.7396	7.255	586.3	0.7396
2	24.112	823.7	0.7396	24.175	635.9	0.7396	24.867	642.3	0.7396
3	31.614	896.7	0.7396	31.691	654.0	0.7396	32.543	662.8	0.7396
4	35.245	874.2	0.7191	35.332	653.0	0.7192	36.289	660.7	0.7202
5	36.698	889.9	0.6793	36.794	663.0	0.6795	37.850	671.7	0.6816
6	37.208	897.1	0.6357	37.315	675.4	0.6360	38.476	683.5	0.6396
7	37.373	900.0	0.5925	37.491	688.1	0.5930	38.766	696.5	0.5982
8	37.443	901.4	0.5515	37.574	703.3	0.5522	38.970	710.6	0.5591
9	37.414	902.8	0.5138	37.558	718.9	0.5147	39.070	724.3	0.5233
10	37.308	903.3	0.4802	37.462	731.1	0.4812	39.068	735.7	0.4911
11	37.059	903.2	0.4504	37.220	739.7	0.4514	38.890	743.5	0.4622
12	36.698	901.9	0.4238	36.864	746.0	0.4250	38.570	747.9	0.4363
13	36.269	899.9	0.4003	36.436	747.2	0.4015	38.157	749.8	0.4129
14	35.776	897.5	0.3792	35.942	746.0	0.3804	37.658	749.2	0.3918
15	35.183	893.7	0.3603	35.347	743.5	0.3615	37.042	746.6	0.3727
16	34.436	887.6	0.3433	34.596	738.5	0.3445	36.255	742.1	0.3553
17	33.503	878.0	0.3281	33.657	731.1	0.3291	35.263	735.7	0.3396
18	32.396	864.3	0.3143	32.542	721.3	0.3154	34.075	726.8	0.3253
19	30.991	845.5	0.3020	31.127	709.3	0.3030	32.578	717.1	0.3126
20	29.030	819.8	0.2911	29.155	696.2	0.2921	30.559	711.5	0.3018
21	26.097	785.6	0.2818	26.217	690.4	0.2828	27.495	696.8	0.2923
22	21.750	741.7	0.2742	21.884	706.9	0.2755	22.931	670.7	0.2846
23	16.227	693.6	0.2685	16.338	680.0	0.2699	17.097	639.3	0.2786
24	6.429	608.1	0.2619	6.468	601.7	0.2631	6.725	587.5	0.2706

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.564	592.3	0.7396	8.002	612.1	0.7396	8.403	638.4	0.7396
2	25.776	661.1	0.7396	27.029	720.9	0.7396	28.124	796.7	0.7396
3	33.677	688.4	0.7396	35.215	762.5	0.7396	36.506	847.1	0.7396
4	37.584	687.3	0.7214	39.298	754.2	0.7224	40.671	820.3	0.7227
5	39.296	703.3	0.6842	41.137	770.6	0.6864	42.554	830.3	0.6872
6	40.066	719.0	0.6439	41.997	782.5	0.6472	43.442	836.6	0.6484
7	40.487	733.5	0.6043	42.484	791.3	0.6085	43.960	843.8	0.6100
8	40.807	746.6	0.5669	42.862	799.1	0.5716	44.380	853.5	0.5733
9	41.006	757.9	0.5322	43.117	806.7	0.5374	44.687	865.7	0.5392
10	41.071	765.7	0.5008	43.229	813.2	0.5061	44.855	879.1	0.5078
11	40.928	769.8	0.4723	43.122	818.2	0.4776	44.806	893.2	0.4792
12	40.615	770.6	0.4465	42.833	821.5	0.4517	44.572	906.8	0.4531
13	40.185	768.6	0.4230	42.415	823.2	0.4279	44.206	919.9	0.4292
14	39.652	764.6	0.4016	41.881	823.0	0.4063	43.717	931.3	0.4073
15	38.989	759.2	0.3820	41.200	820.5	0.3865	43.073	940.8	0.3874
16	38.141	752.2	0.3643	40.314	815.2	0.3686	42.209	946.6	0.3693
17	37.070	743.2	0.3483	39.180	806.6	0.3523	41.074	946.3	0.3529
18	35.777	731.3	0.3336	37.789	793.3	0.3374	39.648	937.2	0.3379
19	34.142	716.1	0.3204	36.012	774.4	0.3241	37.791	916.8	0.3244
20	31.950	697.5	0.3091	33.632	750.2	0.3125	35.274	883.0	0.3127
21	28.683	676.2	0.2992	30.134	721.4	0.3024	31.585	838.0	0.3026
22	23.879	651.8	0.2911	25.051	688.0	0.2942	26.248	781.9	0.2943
23	17.778	625.5	0.2849	18.641	652.8	0.2879	19.542	721.3	0.2880
24	6.958	583.2	0.2762	7.275	594.3	0.2792	7.623	619.9	0.2794

Table 4-31. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly C14

	Assembly Number C14					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.451	565.1	0.7396	8.525	566.5	0.7396
2	28.250	575.1	0.7396	28.446	578.9	0.7396
3	36.650	577.4	0.7396	36.869	581.3	0.7396
4	40.825	578.6	0.7229	41.050	581.4	0.7230
5	42.717	579.6	0.6874	42.950	582.1	0.6879
6	43.615	580.8	0.6489	43.859	583.1	0.6495
7	44.147	582.3	0.6107	44.405	584.3	0.6115
8	44.583	584.1	0.5742	44.859	585.9	0.5753
9	44.909	586.2	0.5402	45.206	587.8	0.5416
10	45.096	588.3	0.5091	45.417	589.9	0.5108
11	45.068	590.6	0.4808	45.413	592.0	0.4828
12	44.858	593.3	0.4550	45.229	594.3	0.4574
13	44.521	596.5	0.4314	44.920	596.8	0.4343
14	44.070	600.7	0.4101	44.500	599.5	0.4134
15	43.475	606.2	0.3907	43.943	602.9	0.3945
16	42.668	612.7	0.3734	43.178	606.7	0.3778
17	41.586	618.7	0.3577	42.139	610.5	0.3627
18	40.199	623.1	0.3433	40.788	613.8	0.3490
19	38.362	625.4	0.3303	38.975	615.9	0.3365
20	35.840	624.9	0.3188	36.459	616.5	0.3254
21	32.116	620.9	0.3088	32.711	614.3	0.3158
22	26.704	612.3	0.3006	27.226	607.8	0.3078
23	19.873	598.3	0.2940	20.260	595.7	0.3010
24	7.728	573.2	0.2844	7.851	572.4	0.2901

Table 4-32. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D1

	Assembly Number D1								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.318	631.7	0.7396	2.875	637.3	0.7396
2	0.000		0.7396	4.861	865.5	0.7396	10.468	883.0	0.7396
3	0.000		0.7396	6.887	1030.9	0.7396	14.349	1021.1	0.7396
4	0.000		0.7359	8.109	1049.5	0.7233	16.217	990.5	0.7212
5	0.000		0.6781	8.713	1100.0	0.6677	16.935	998.5	0.6664
6	0.000	Data Not	0.6198	9.009	1125.6	0.6077	17.250	999.8	0.6083
7	0.000	Required	0.5656	8.936	1119.2	0.5513	17.178	999.9	0.5541
8	0.000		0.5200	8.704	1099.2	0.5028	16.966	1001.3	0.5071
9	0.000		0.4823	8.403	1073.8	0.4624	16.707	1004.3	0.4668
10	0.000		0.4511	8.082	1047.3	0.4288	16.438	1008.0	0.4324
11	0.000		0.4247	7.764	1021.8	0.4007	16.163	1011.0	0.4025
12	0.000		0.4022	7.464	998.4	0.3769	15.894	1013.2	0.3766
13	0.000		0.3824	7.187	977.2	0.3564	15.642	1015.0	0.3539
14	0.000		0.3649	6.935	958.4	0.3388	15.408	1016.3	0.3337
15	0.000		0.3491	6.705	941.6	0.3233	15.219	1019.2	0.3159
16	0.000		0.3349	6.490	926.1	0.3096	15.065	1023.6	0.2997
17	0.000		0.3221	6.268	910.4	0.2975	14.796	1020.2	0.2851
18	0.000		0.3104	6.002	892.0	0.2868	14.403	1011.1	0.2720
19	0.000		0.3000	5.664	869.2	0.2774	13.834	994.9	0.2605
20	0.000		0.2911	5.221	840.2	0.2692	12.965	965.6	0.2504
21	0.000		0.2840	4.638	803.6	0.2621	11.650	917.4	0.2416
22	0.000		0.2782	3.847	756.6	0.2562	9.718	847.3	0.2344
23	0.000		0.2738	2.867	702.1	0.2517	7.254	764.5	0.2287
24	0.000		0.2713	1.206	618.0	0.2489	3.098	642.9	0.2253

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	4.200	650.2	0.7396	6.144	637.8	0.7396	7.064	638.8	0.7396
2	15.372	959.4	0.7396	21.722	849.6	0.7396	24.537	831.7	0.7396
3	20.647	1111.7	0.7396	28.288	922.3	0.7396	31.745	907.6	0.7396
4	23.203	1092.0	0.7097	31.288	886.4	0.7090	35.081	887.4	0.7100
5	24.277	1130.0	0.6540	32.537	895.1	0.6580	36.517	907.6	0.6611
6	24.771	1149.6	0.5947	33.164	901.8	0.6036	37.242	918.3	0.6085
7	24.786	1159.3	0.5392	33.390	912.6	0.5526	37.532	925.4	0.5587
8	24.568	1158.6	0.4913	33.467	927.9	0.5082	37.665	931.7	0.5147
9	24.219	1148.6	0.4506	33.448	945.3	0.4703	37.701	937.9	0.4767
10	23.795	1131.6	0.4163	33.366	963.7	0.4376	37.665	943.1	0.4437
11	23.301	1108.1	0.3869	33.199	981.7	0.4091	37.517	945.2	0.4148
12	22.767	1080.3	0.3618	32.957	998.0	0.3841	37.278	945.6	0.3893
13	22.215	1049.7	0.3400	32.645	1011.7	0.3618	36.961	945.0	0.3668
14	21.652	1017.1	0.3211	32.256	1021.7	0.3421	36.558	943.4	0.3466
15	21.104	982.9	0.3045	31.798	1027.0	0.3244	36.066	939.6	0.3286
16	20.566	947.6	0.2898	31.247	1026.2	0.3083	35.448	932.0	0.3123
17	19.909	913.3	0.2765	30.481	1019.9	0.2938	34.573	919.9	0.2976
18	19.153	882.4	0.2647	29.516	1007.9	0.2808	33.468	904.5	0.2844
19	18.240	854.2	0.2542	28.270	989.0	0.2690	32.034	884.3	0.2724
20	17.006	825.3	0.2449	26.519	960.6	0.2584	30.023	857.2	0.2618
21	15.235	790.6	0.2368	23.922	916.9	0.2493	27.051	819.6	0.2526
22	12.681	745.6	0.2301	20.095	853.6	0.2417	22.717	771.4	0.2451
23	9.466	694.7	0.2249	15.153	775.0	0.2359	17.201	720.4	0.2393
24	3.905	608.0	0.2222	6.004	634.0	0.2319	6.770	617.7	0.2351

Table 4-32. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D1

	Assembly Number D1								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.943	648.7	0.7396	7.967	587.4	0.7396	8.297	597.6	0.7396
2	27.189	865.1	0.7396	27.258	643.5	0.7396	28.188	672.8	0.7396
3	35.032	956.7	0.7396	35.116	663.0	0.7396	36.202	693.5	0.7396
4	38.696	935.4	0.7100	38.788	658.4	0.7101	39.949	683.3	0.7114
5	40.277	954.7	0.6622	40.378	668.4	0.6624	41.605	690.8	0.6651
6	41.041	960.0	0.6104	41.153	680.9	0.6108	42.452	699.0	0.6151
7	41.329	959.7	0.5610	41.453	694.8	0.5616	42.834	708.6	0.5676
8	41.450	958.1	0.5171	41.589	712.6	0.5178	43.056	718.7	0.5253
9	41.479	957.1	0.4789	41.636	734.5	0.4799	43.183	728.2	0.4886
10	41.441	956.9	0.4457	41.615	755.7	0.4469	43.231	736.6	0.4565
11	41.282	955.4	0.4167	41.469	772.4	0.4179	43.138	743.0	0.4281
12	41.030	953.6	0.3910	41.224	781.6	0.3923	42.934	748.1	0.4030
13	40.702	952.1	0.3684	40.898	784.2	0.3696	42.634	751.3	0.3805
14	40.286	950.4	0.3481	40.480	781.6	0.3494	42.227	752.7	0.3601
15	39.773	947.6	0.3300	39.962	775.0	0.3312	41.704	752.0	0.3417
16	39.108	941.3	0.3136	39.291	767.2	0.3147	41.009	749.1	0.3250
17	38.151	930.5	0.2988	38.327	758.3	0.2999	40.006	744.3	0.3099
18	36.930	915.4	0.2855	37.096	745.6	0.2865	38.720	737.5	0.2962
19	35.331	894.4	0.2736	35.486	732.0	0.2746	37.034	728.4	0.2839
20	33.086	865.5	0.2630	33.229	717.4	0.2639	34.671	715.7	0.2730
21	29.781	826.1	0.2538	29.908	698.3	0.2547	31.200	698.2	0.2635
22	24.996	775.6	0.2462	25.102	674.1	0.2471	26.181	674.1	0.2557
23	18.962	721.5	0.2405	19.040	642.9	0.2413	19.835	643.0	0.2496
24	7.447	619.7	0.2364	7.473	588.2	0.2371	7.748	589.2	0.2445

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.551	586.3	0.7396	8.751	582.8	0.7396	8.857	579.3	0.7396
2	28.890	636.6	0.7396	29.433	625.2	0.7396	29.715	614.0	0.7396
3	37.009	648.8	0.7396	37.630	635.2	0.7396	37.946	620.8	0.7396
4	40.805	642.5	0.7124	41.463	630.2	0.7130	41.792	616.5	0.7134
5	42.514	647.7	0.6670	43.213	634.7	0.6684	43.556	618.9	0.6691
6	43.425	654.1	0.6182	44.174	640.1	0.6205	44.539	622.7	0.6216
7	43.884	661.9	0.5719	44.693	646.7	0.5752	45.089	628.0	0.5768
8	44.192	670.6	0.5311	45.072	654.6	0.5354	45.507	634.8	0.5375
9	44.407	679.7	0.4956	45.364	663.2	0.5010	45.844	642.7	0.5036
10	44.536	688.1	0.4647	45.572	672.1	0.4711	46.099	651.0	0.4743
11	44.518	696.1	0.4374	45.630	680.9	0.4449	46.206	659.8	0.4487
12	44.384	703.5	0.4132	45.567	689.1	0.4216	46.192	668.7	0.4260
13	44.156	711.3	0.3915	45.406	697.0	0.4007	46.080	677.7	0.4058
14	43.826	719.7	0.3720	45.140	704.6	0.3818	45.861	686.5	0.3874
15	43.379	728.0	0.3542	44.748	711.2	0.3646	45.516	695.3	0.3707
16	42.750	735.4	0.3379	44.165	716.7	0.3488	44.979	704.1	0.3553
17	41.788	740.0	0.3231	43.239	721.1	0.3342	44.095	712.2	0.3412
18	40.510	740.9	0.3095	41.978	723.2	0.3208	42.867	718.6	0.3281
19	38.794	737.5	0.2971	40.252	722.0	0.3083	41.158	722.0	0.3159
20	36.355	729.0	0.2860	37.771	716.8	0.2972	38.671	720.8	0.3050
21	32.746	713.9	0.2763	34.070	705.8	0.2876	34.930	713.0	0.2954
22	27.494	689.0	0.2683	28.642	685.0	0.2795	29.399	693.2	0.2874
23	20.805	653.8	0.2616	21.665	652.3	0.2725	22.237	659.1	0.2802
24	8.077	592.1	0.2548	8.370	591.8	0.2644	8.564	593.8	0.2711

Table 4-33. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D2

	Assembly Number D2								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.957	611.2	0.7396	2.780	651.4	0.7396
2	0.000		0.7396	3.560	772.3	0.7396	10.243	960.8	0.7396
3	0.000		0.7396	5.223	893.1	0.7396	14.332	1160.0	0.7396
4	0.000		0.7396	6.429	991.1	0.7396	16.293	1229.1	0.7153
5	0.000		0.7396	7.185	1057.5	0.7090	16.860	1106.1	0.6651
6	0.000	Data Not	0.7049	7.639	1012.0	0.6615	16.863	1071.5	0.6129
7	0.000	Required	0.6615	7.996	1040.4	0.6115	16.801	1040.3	0.5637
8	0.000		0.6214	8.345	1068.9	0.5624	16.807	1015.5	0.5186
9	0.000		0.5831	8.319	1066.8	0.5159	16.629	1004.7	0.4766
10	0.000		0.5490	8.121	1050.5	0.4755	16.440	1005.3	0.4395
11	0.000		0.5187	7.828	1026.9	0.4411	16.151	1005.6	0.4073
12	0.000		0.4916	7.507	1001.7	0.4123	15.837	1006.1	0.3798
13	0.000		0.4667	7.194	977.8	0.3882	15.532	1006.7	0.3559
14	0.000		0.4433	6.908	956.4	0.3675	15.248	1006.8	0.3352
15	0.000		0.4203	6.652	937.7	0.3496	14.978	1005.8	0.3170
16	0.000		0.3985	6.421	921.2	0.3342	14.696	1002.2	0.3009
17	0.000		0.3787	6.206	906.1	0.3205	14.381	995.2	0.2866
18	0.000		0.3611	5.980	890.5	0.3085	13.987	983.6	0.2739
19	0.000		0.3457	5.691	871.0	0.2979	13.427	965.0	0.2626
20	0.000		0.3326	5.295	845.0	0.2885	12.596	936.1	0.2527
21	0.000		0.3217	4.763	811.3	0.2805	11.383	892.7	0.2441
22	0.000		0.3131	3.988	764.7	0.2736	9.529	828.1	0.2369
23	0.000		0.3067	2.965	707.3	0.2685	7.082	750.3	0.2313
24	0.000		0.3031	1.244	619.9	0.2653	3.018	637.7	0.2277

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.837	630.9	0.7396	5.819	639.4	0.7396	6.691	634.4	0.7396
2	14.207	867.7	0.7396	20.860	866.2	0.7396	23.561	818.8	0.7396
3	19.567	993.7	0.7396	27.668	949.5	0.7396	30.952	886.5	0.7396
4	22.332	997.4	0.7120	30.922	911.9	0.7097	34.501	864.9	0.7109
5	23.453	1051.7	0.6625	32.181	919.0	0.6629	35.949	884.7	0.6661
6	23.835	1090.6	0.6093	32.634	922.7	0.6126	36.529	898.3	0.6175
7	23.976	1112.0	0.5579	32.891	928.7	0.5640	36.870	907.5	0.5701
8	24.048	1119.1	0.5108	33.162	939.2	0.5198	37.203	914.2	0.5264
9	23.845	1116.4	0.4681	33.250	954.7	0.4798	37.351	920.9	0.4865
10	23.536	1103.6	0.4309	33.247	971.4	0.4448	37.394	926.0	0.4514
11	23.058	1083.8	0.3992	33.072	988.2	0.4143	37.248	929.2	0.4208
12	22.498	1058.5	0.3720	32.775	1003.0	0.3878	36.970	931.3	0.3940
13	21.907	1029.9	0.3488	32.395	1015.0	0.3647	36.608	933.4	0.3706
14	21.304	999.0	0.3288	31.940	1023.6	0.3444	36.172	935.5	0.3500
15	20.684	966.3	0.3114	31.391	1027.7	0.3263	35.631	936.4	0.3317
16	20.021	931.9	0.2961	30.700	1026.1	0.3103	34.920	934.1	0.3153
17	19.309	897.4	0.2827	29.849	1018.0	0.2959	34.002	926.6	0.3006
18	18.563	868.0	0.2708	28.867	1004.5	0.2828	32.904	913.8	0.2872
19	17.697	843.3	0.2602	27.653	984.9	0.2710	31.507	893.9	0.2752
20	16.554	818.8	0.2508	25.979	955.8	0.2605	29.564	865.5	0.2645
21	14.916	786.7	0.2427	23.477	910.4	0.2513	26.674	826.3	0.2552
22	12.460	743.4	0.2358	19.703	845.5	0.2437	22.372	775.8	0.2475
23	9.303	695.3	0.2306	14.851	769.0	0.2379	16.902	720.6	0.2417
24	3.814	607.4	0.2273	5.835	631.2	0.2337	6.595	617.2	0.2375

Table 4-33. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D2

	Assembly Number D2								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.427	633.5	0.7396	7.461	599.6	0.7396	7.810	599.9	0.7396
2	25.811	811.3	0.7396	25.911	684.5	0.7396	26.919	683.1	0.7396
3	33.733	883.0	0.7396	33.854	713.4	0.7396	35.031	705.9	0.7396
4	37.579	867.3	0.7118	37.713	706.6	0.7120	38.957	692.7	0.7134
5	39.213	890.3	0.6683	39.356	717.4	0.6687	40.652	698.7	0.6713
6	39.908	904.8	0.6208	40.060	728.3	0.6213	41.413	705.3	0.6256
7	40.316	913.4	0.5742	40.475	736.9	0.5749	41.890	712.5	0.5806
8	40.685	918.0	0.5308	40.850	744.4	0.5316	42.331	720.3	0.5386
9	40.867	922.4	0.4911	41.037	750.7	0.4919	42.587	728.6	0.5001
10	40.940	926.3	0.4558	41.114	755.7	0.4568	42.723	735.7	0.4659
11	40.823	930.1	0.4250	41.000	759.5	0.4260	42.657	741.6	0.4357
12	40.565	932.7	0.3982	40.742	759.6	0.3992	42.432	745.6	0.4092
13	40.224	935.5	0.3746	40.400	758.3	0.3755	42.106	747.6	0.3858
14	39.815	939.1	0.3537	39.988	754.5	0.3547	41.696	747.8	0.3649
15	39.291	941.3	0.3352	39.461	750.7	0.3361	41.159	746.6	0.3461
16	38.570	940.0	0.3186	38.735	744.4	0.3195	40.411	743.9	0.3293
17	37.594	932.3	0.3036	37.753	736.9	0.3045	39.395	739.7	0.3141
18	36.393	918.9	0.2901	36.545	728.3	0.2910	38.137	733.7	0.3003
19	34.835	898.3	0.2780	34.979	718.6	0.2788	36.501	725.2	0.2879
20	32.659	869.4	0.2671	32.792	705.4	0.2679	34.214	713.4	0.2768
21	29.434	829.5	0.2577	29.554	690.2	0.2585	30.831	696.5	0.2671
22	24.677	778.4	0.2500	24.777	667.3	0.2507	25.849	673.3	0.2593
23	18.662	721.4	0.2441	18.736	638.6	0.2449	19.533	643.2	0.2531
24	7.262	618.8	0.2398	7.288	588.2	0.2406	7.566	589.6	0.2479

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	8.098	590.0	0.7396	8.296	582.6	0.7396	8.392	577.3	0.7396
2	27.725	648.7	0.7396	28.270	625.4	0.7396	28.532	609.9	0.7396
3	35.952	662.3	0.7396	36.566	634.3	0.7396	36.859	616.2	0.7396
4	39.924	653.5	0.7144	40.563	628.2	0.7151	40.865	611.9	0.7153
5	41.668	658.4	0.6733	42.336	631.3	0.6746	42.650	614.0	0.6752
6	42.495	665.1	0.6288	43.207	636.1	0.6308	43.541	617.4	0.6318
7	43.050	673.1	0.5852	43.816	642.0	0.5881	44.179	622.3	0.5895
8	43.580	682.3	0.5446	44.411	649.1	0.5485	44.810	628.5	0.5503
9	43.930	692.1	0.5076	44.837	657.6	0.5125	45.281	636.4	0.5149
10	44.154	701.5	0.4747	45.140	666.5	0.4807	45.633	645.0	0.4835
11	44.164	709.7	0.4456	45.229	675.5	0.4527	45.773	654.1	0.4562
12	44.001	716.4	0.4198	45.141	684.1	0.4280	45.739	663.8	0.4322
13	43.722	721.5	0.3970	44.932	692.3	0.4060	45.585	673.9	0.4108
14	43.348	725.5	0.3764	44.622	699.8	0.3862	45.330	684.0	0.3917
15	42.836	728.3	0.3578	44.168	706.7	0.3682	44.929	694.0	0.3743
16	42.103	729.9	0.3410	43.487	713.0	0.3518	44.299	703.7	0.3586
17	41.088	730.0	0.3258	42.514	718.1	0.3371	43.373	712.8	0.3443
18	39.813	728.2	0.3119	41.263	721.0	0.3234	42.157	719.6	0.3310
19	38.133	723.3	0.2993	39.581	720.7	0.3109	40.494	723.3	0.3188
20	35.765	714.4	0.2881	37.177	716.4	0.2998	38.085	722.4	0.3078
21	32.250	700.2	0.2783	33.573	705.6	0.2900	34.442	714.7	0.2982
22	27.055	677.8	0.2703	28.203	685.0	0.2820	28.969	695.0	0.2903
23	20.430	646.5	0.2638	21.291	652.5	0.2751	21.869	660.2	0.2832
24	7.874	590.2	0.2574	8.166	591.7	0.2674	8.362	594.1	0.2745

Table 4-33. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D2

	Assembly Number D2					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.574	582.2	0.7396	8.894	591.7	0.7396
2	29.051	626.9	0.7396	29.929	651.8	0.7396
3	37.487	641.9	0.7396	38.498	666.9	0.7396
4	41.558	639.5	0.7160	42.619	657.4	0.7170
5	43.400	646.2	0.6766	44.493	660.5	0.6785
6	44.349	653.1	0.6341	45.476	663.8	0.6369
7	45.048	660.4	0.5927	46.218	667.9	0.5967
8	45.743	668.1	0.5545	46.967	673.2	0.5595
9	46.280	676.2	0.5200	47.563	678.9	0.5260
10	46.691	683.5	0.4896	48.033	684.8	0.4965
11	46.883	690.0	0.4630	48.278	690.0	0.4707
12	46.891	695.3	0.4396	48.333	694.7	0.4478
13	46.771	699.6	0.4187	48.252	698.7	0.4274
14	46.544	703.1	0.3999	48.058	702.0	0.4088
15	46.166	706.1	0.3826	47.709	705.0	0.3918
16	45.554	708.4	0.3670	47.121	707.4	0.3763
17	44.636	709.4	0.3528	46.217	708.8	0.3621
18	43.407	707.7	0.3395	44.984	708.4	0.3488
19	41.699	702.0	0.3270	43.237	704.4	0.3362
20	39.208	691.6	0.3157	40.656	695.3	0.3246
21	35.440	676.1	0.3058	36.742	680.8	0.3145
22	29.790	654.6	0.2976	30.874	659.6	0.3060
23	22.461	627.8	0.2901	23.253	632.2	0.2982
24	8.558	583.3	0.2806	8.827	585.3	0.2879

Table 4-34. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D3

	Assembly Number D3								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.073	617.7	0.7396	2.738	643.0	0.7396
2	0.000		0.7396	3.980	801.4	0.7396	9.900	905.0	0.7396
3	0.000		0.7396	5.617	924.1	0.7396	13.427	1049.1	0.7396
4	0.000		0.7396	6.683	1013.0	0.7396	15.122	1101.5	0.7277
5	0.000		0.7024	7.324	987.6	0.7019	15.754	1013.2	0.6812
6	0.000	Data Not	0.6500	7.726	1018.8	0.6516	16.004	1002.4	0.6295
7	0.000	Required	0.6017	8.059	1045.5	0.6003	16.212	993.7	0.5787
8	0.000		0.5577	8.370	1071.0	0.5499	16.426	986.9	0.5306
9	0.000		0.5201	8.360	1070.2	0.5037	16.435	988.3	0.4868
10	0.000		0.4881	8.210	1057.8	0.4638	16.400	996.3	0.4485
11	0.000		0.4603	8.017	1042.1	0.4300	16.293	1002.3	0.4152
12	0.000		0.4360	7.834	1027.4	0.4014	16.188	1007.8	0.3865
13	0.000		0.4141	7.670	1014.4	0.3770	16.101	1013.3	0.3616
14	0.000		0.3937	7.487	1000.2	0.3559	15.981	1017.8	0.3396
15	0.000		0.3742	7.282	984.4	0.3376	15.822	1021.1	0.3203
16	0.000		0.3558	7.057	967.5	0.3218	15.612	1022.2	0.3032
17	0.000		0.3391	6.813	949.4	0.3078	15.335	1019.8	0.2880
18	0.000		0.3242	6.548	930.3	0.2956	14.964	1012.2	0.2745
19	0.000		0.3111	6.240	908.5	0.2850	14.442	997.1	0.2625
20	0.000		0.2997	5.848	881.6	0.2755	13.672	971.0	0.2519
21	0.000		0.2905	5.312	846.1	0.2675	12.509	929.3	0.2427
22	0.000		0.2834	4.497	795.0	0.2607	10.642	863.6	0.2351
23	0.000		0.2783	3.381	730.1	0.2554	8.039	779.0	0.2290
24	0.000		0.2753	1.408	627.8	0.2523	3.413	648.0	0.2253

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	4.166	657.8	0.7396	6.164	640.1	0.7396	6.980	629.4	0.7396
2	15.217	1002.4	0.7396	21.719	857.9	0.7396	24.218	796.4	0.7396
3	20.250	1174.6	0.7396	28.062	932.3	0.7396	31.129	860.8	0.7396
4	22.622	1147.3	0.7094	30.871	894.6	0.7078	34.300	849.5	0.7095
5	23.520	1177.0	0.6575	31.946	903.5	0.6592	35.611	873.9	0.6633
6	23.844	1185.4	0.6016	32.410	910.6	0.6073	36.289	896.6	0.6137
7	24.019	1181.7	0.5489	32.765	919.9	0.5583	36.756	908.8	0.5662
8	24.133	1170.4	0.5015	33.118	932.4	0.5143	37.167	915.1	0.5227
9	24.004	1154.9	0.4595	33.280	947.8	0.4752	37.373	920.0	0.4836
10	23.779	1134.0	0.4233	33.361	964.3	0.4412	37.481	923.0	0.4492
11	23.442	1109.3	0.3923	33.331	981.2	0.4115	37.461	924.1	0.4191
12	23.065	1080.7	0.3659	33.227	996.5	0.3855	37.353	923.6	0.3927
13	22.671	1049.3	0.3432	33.056	1009.1	0.3627	37.171	922.4	0.3694
14	22.219	1016.5	0.3234	32.769	1018.6	0.3424	36.869	920.8	0.3488
15	21.704	982.6	0.3061	32.344	1023.8	0.3244	36.414	917.4	0.3304
16	21.115	947.8	0.2908	31.756	1023.9	0.3082	35.764	910.6	0.3140
17	20.456	914.0	0.2773	30.995	1018.0	0.2936	34.899	899.3	0.2991
18	19.723	883.2	0.2653	30.058	1006.3	0.2805	33.831	885.3	0.2858
19	18.857	854.9	0.2545	28.857	987.4	0.2686	32.459	867.3	0.2737
20	17.719	825.7	0.2450	27.194	958.5	0.2579	30.558	842.9	0.2628
21	16.100	791.0	0.2368	24.747	914.8	0.2486	27.755	807.8	0.2534
22	13.617	746.5	0.2298	20.997	852.0	0.2409	23.513	761.7	0.2456
23	10.253	694.9	0.2243	15.914	773.9	0.2349	17.844	710.3	0.2396
24	4.224	608.3	0.2214	6.333	634.4	0.2308	7.054	614.3	0.2353

Table 4-34. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D3

	Assembly Number D3								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.414	602.1	0.7396	7.434	582.6	0.7396	7.699	589.9	0.7396
2	25.565	700.8	0.7396	25.624	630.7	0.7396	26.380	650.3	0.7396
3	32.846	744.4	0.7396	32.922	652.5	0.7396	33.802	666.3	0.7396
4	36.293	745.2	0.7115	36.382	655.0	0.7116	37.314	657.8	0.7127
5	37.840	770.2	0.6676	37.941	668.4	0.6678	38.914	662.3	0.6700
6	38.852	807.0	0.6206	38.962	678.6	0.6210	39.974	666.6	0.6244
7	39.497	827.3	0.5749	39.615	687.9	0.5755	40.679	672.4	0.5801
8	40.027	841.2	0.5325	40.152	696.0	0.5332	41.277	679.2	0.5391
9	40.332	853.0	0.4939	40.464	704.2	0.4948	41.658	687.0	0.5020
10	40.543	865.4	0.4598	40.681	711.4	0.4607	41.938	694.2	0.4691
11	40.615	876.6	0.4296	40.758	717.4	0.4306	42.071	700.6	0.4399
12	40.546	881.5	0.4028	40.691	719.8	0.4038	42.050	706.0	0.4137
13	40.409	887.0	0.3791	40.555	721.0	0.3802	41.946	709.7	0.3906
14	40.189	897.3	0.3583	40.335	721.0	0.3594	41.743	711.7	0.3700
15	39.998	931.3	0.3405	40.141	717.4	0.3416	41.546	711.4	0.3521
16	39.398	937.9	0.3237	39.538	713.8	0.3246	40.938	710.8	0.3352
17	38.454	927.5	0.3080	38.591	710.2	0.3090	39.978	709.3	0.3195
18	37.262	911.4	0.2939	37.395	705.4	0.2949	38.756	706.2	0.3052
19	35.724	890.4	0.2812	35.851	698.4	0.2822	37.165	700.8	0.2924
20	33.595	862.4	0.2699	33.714	689.0	0.2709	34.958	692.7	0.2809
21	30.466	823.9	0.2600	30.574	676.4	0.2609	31.712	680.7	0.2709
22	25.778	774.1	0.2519	25.871	659.5	0.2528	26.847	662.7	0.2627
23	19.566	717.6	0.2457	19.636	634.3	0.2467	20.373	636.9	0.2563
24	7.702	617.1	0.2412	7.726	586.2	0.2420	7.979	587.0	0.2505

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.927	583.4	0.7396	8.085	577.8	0.7396	8.161	573.5	0.7396
2	27.012	628.5	0.7396	27.444	611.2	0.7396	27.650	598.8	0.7396
3	34.524	638.9	0.7396	35.012	618.2	0.7396	35.243	603.7	0.7396
4	38.069	632.6	0.7136	38.574	613.9	0.7141	38.811	601.0	0.7144
5	39.702	635.8	0.6717	40.227	616.0	0.6727	40.472	602.3	0.6733
6	40.803	639.8	0.6270	41.356	619.0	0.6287	41.614	604.5	0.6295
7	41.565	645.4	0.5838	42.157	623.2	0.5862	42.436	608.0	0.5873
8	42.230	652.1	0.5439	42.870	628.3	0.5470	43.176	612.6	0.5484
9	42.683	659.3	0.5079	43.380	634.5	0.5119	43.718	618.1	0.5138
10	43.036	666.7	0.4762	43.792	640.9	0.4809	44.166	624.2	0.4833
11	43.240	674.0	0.4481	44.057	647.6	0.4537	44.470	631.0	0.4565
12	43.284	680.7	0.4231	44.165	654.7	0.4295	44.620	638.3	0.4328
13	43.234	686.4	0.4007	44.178	661.7	0.4081	44.676	645.9	0.4119
14	43.076	691.1	0.3807	44.080	668.5	0.3890	44.623	653.9	0.3934
15	42.908	694.2	0.3632	43.965	674.5	0.3722	44.552	661.8	0.3772
16	42.329	697.2	0.3466	43.440	680.8	0.3563	44.075	670.6	0.3620
17	41.390	699.5	0.3313	42.550	686.4	0.3417	43.233	679.4	0.3480
18	40.172	699.9	0.3173	41.368	690.6	0.3283	42.091	686.9	0.3351
19	38.565	698.2	0.3045	39.779	692.7	0.3160	40.530	692.1	0.3233
20	36.309	693.0	0.2931	37.513	691.6	0.3049	38.276	694.4	0.3127
21	32.972	683.4	0.2831	34.124	685.5	0.2953	34.870	691.2	0.3035
22	27.947	666.9	0.2750	28.973	671.0	0.2874	29.649	678.1	0.2960
23	21.209	640.5	0.2684	21.999	644.6	0.2807	22.525	650.9	0.2893
24	8.264	588.0	0.2609	8.530	589.0	0.2716	8.706	590.8	0.2790

Table 4-34. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D3

	Assembly Number D3					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.302	577.0	0.7396	8.434	572.4	0.7396
2	28.043	609.9	0.7396	28.401	595.6	0.7396
3	35.704	619.0	0.7396	36.109	600.5	0.7396
4	39.306	616.7	0.7149	39.727	598.7	0.7153
5	40.997	620.1	0.6743	41.432	599.9	0.6751
6	42.165	623.0	0.6311	42.619	601.6	0.6324
7	43.018	626.6	0.5895	43.498	603.9	0.5912
8	43.792	630.5	0.5512	44.303	606.7	0.5536
9	44.370	634.7	0.5171	44.917	609.9	0.5199
10	44.853	638.8	0.4869	45.437	613.2	0.4903
11	45.190	642.6	0.4605	45.810	616.5	0.4643
12	45.370	646.2	0.4370	46.027	619.8	0.4412
13	45.457	649.9	0.4162	46.149	623.0	0.4208
14	45.434	653.4	0.3977	46.160	626.1	0.4025
15	45.390	656.6	0.3814	46.150	629.3	0.3864
16	44.944	660.4	0.3662	45.742	632.8	0.3714
17	44.128	663.5	0.3522	44.969	636.7	0.3576
18	42.998	665.0	0.3393	43.877	640.3	0.3449
19	41.424	663.4	0.3274	42.326	642.4	0.3331
20	39.128	658.3	0.3166	40.028	642.2	0.3223
21	35.643	648.9	0.3071	36.499	638.1	0.3130
22	30.296	634.1	0.2994	31.037	627.5	0.3051
23	22.999	614.3	0.2926	23.548	610.1	0.2980
24	8.869	579.6	0.2820	9.054	577.9	0.2868

Table 4-35. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D4

	Assembly Number D4								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.172	623.4	0.7396	2.943	648.7	0.7396
2	0.000		0.7396	4.387	830.4	0.7396	10.866	945.6	0.7396
3	0.000		0.7396	6.314	981.4	0.7396	14.976	1120.7	0.7396
4	0.000		0.7396	7.526	1088.8	0.7318	16.841	1078.4	0.7156
5	0.000		0.7186	8.108	1049.5	0.6833	17.294	1068.6	0.6611
6	0.000	Data Not	0.6686	8.343	1068.8	0.6284	17.212	1045.0	0.6050
7	0.000	Required	0.6223	8.494	1081.4	0.5750	17.079	1024.3	0.5529
8	0.000		0.5785	8.668	1096.1	0.5257	17.018	1007.5	0.5060
9	0.000		0.5405	8.513	1083.0	0.4819	16.781	1001.7	0.4646
10	0.000		0.5077	8.228	1059.3	0.4449	16.541	1004.9	0.4289
11	0.000		0.4793	7.893	1032.1	0.4141	16.227	1006.4	0.3983
12	0.000		0.4543	7.558	1005.7	0.3882	15.900	1007.0	0.3721
13	0.000		0.4318	7.243	981.5	0.3662	15.585	1007.0	0.3493
14	0.000		0.4106	6.958	960.1	0.3476	15.285	1005.9	0.3295
15	0.000		0.3901	6.699	941.1	0.3314	14.992	1003.5	0.3120
16	0.000		0.3705	6.455	923.6	0.3173	14.683	998.9	0.2965
17	0.000		0.3527	6.212	906.5	0.3048	14.332	991.4	0.2827
18	0.000		0.3367	5.950	888.5	0.2939	13.897	979.4	0.2704
19	0.000		0.3226	5.635	867.3	0.2843	13.313	961.1	0.2596
20	0.000		0.3104	5.231	840.9	0.2760	12.474	932.3	0.2501
21	0.000		0.3001	4.703	807.6	0.2688	11.271	889.4	0.2419
22	0.000		0.2920	3.937	761.8	0.2628	9.464	827.3	0.2349
23	0.000		0.2865	2.920	704.9	0.2581	7.037	750.3	0.2295
24	0.000		0.2834	1.216	618.5	0.2554	2.981	637.3	0.2262

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.561	600.3	0.7396	4.635	601.6	0.7396	5.563	639.5	0.7396
2	13.192	726.5	0.7396	16.957	719.2	0.7396	19.995	857.4	0.7396
3	18.010	784.9	0.7396	22.685	763.0	0.7396	26.386	938.1	0.7396
4	20.329	783.4	0.7202	25.423	749.8	0.7255	29.413	908.7	0.7239
5	21.144	810.6	0.6730	26.465	759.4	0.6852	30.594	924.0	0.6845
6	21.356	833.3	0.6241	26.846	766.5	0.6429	31.042	931.5	0.6426
7	21.441	850.7	0.5778	27.094	773.6	0.6022	31.313	934.0	0.6017
8	21.524	862.3	0.5347	27.353	781.2	0.5637	31.578	934.7	0.5628
9	21.373	869.4	0.4956	27.407	790.2	0.5285	31.647	936.4	0.5271
10	21.161	871.7	0.4605	27.399	799.3	0.4967	31.647	937.3	0.4949
11	20.828	870.1	0.4296	27.252	807.6	0.4682	31.497	937.0	0.4660
12	20.459	866.6	0.4025	27.041	814.8	0.4428	31.270	935.2	0.4402
13	20.087	862.0	0.3787	26.796	820.6	0.4198	30.997	932.0	0.4171
14	19.706	855.4	0.3576	26.501	824.5	0.3990	30.659	927.2	0.3961
15	19.283	845.0	0.3388	26.118	826.4	0.3800	30.216	920.5	0.3771
16	18.783	829.9	0.3218	25.606	825.8	0.3626	29.618	911.1	0.3597
17	18.203	812.2	0.3066	24.953	822.5	0.3468	28.847	898.2	0.3439
18	17.548	795.5	0.2931	24.175	816.8	0.3325	27.921	882.4	0.3297
19	16.754	779.9	0.2815	23.198	808.5	0.3199	26.753	862.4	0.3172
20	15.681	762.9	0.2713	21.834	795.5	0.3089	25.133	836.4	0.3063
21	14.149	739.7	0.2626	19.800	773.5	0.2993	22.744	801.7	0.2967
22	11.843	705.7	0.2552	16.657	738.2	0.2911	19.122	757.1	0.2887
23	8.771	664.1	0.2493	12.381	690.1	0.2847	14.272	707.0	0.2823
24	3.567	595.2	0.2426	4.777	602.9	0.2737	5.457	611.3	0.2724

Table 4-35. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D4

	Assembly Number D4								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.384	642.5	0.7396	6.412	592.3	0.7396	6.732	596.4	0.7396
2	22.603	859.0	0.7396	22.692	669.7	0.7396	23.651	676.6	0.7396
3	29.578	942.5	0.7396	29.687	696.7	0.7396	30.808	698.2	0.7396
4	32.874	915.3	0.7228	32.996	692.5	0.7229	34.180	685.9	0.7240
5	34.181	931.7	0.6839	34.315	706.6	0.6841	35.548	691.4	0.6865
6	34.673	937.5	0.6422	34.816	717.4	0.6426	36.105	697.9	0.6464
7	34.940	937.0	0.6011	35.091	727.1	0.6017	36.442	705.1	0.6071
8	35.182	933.9	0.5619	35.340	735.7	0.5626	36.757	712.8	0.5694
9	35.237	932.1	0.5259	35.401	743.1	0.5268	36.889	721.2	0.5348
10	35.226	930.6	0.4935	35.395	749.4	0.4944	36.946	728.7	0.5033
11	35.066	929.3	0.4644	35.238	753.2	0.4654	36.838	734.6	0.4750
12	34.825	927.5	0.4385	34.998	754.5	0.4395	36.632	738.8	0.4495
13	34.531	924.8	0.4153	34.703	753.2	0.4163	36.357	741.2	0.4264
14	34.167	921.4	0.3942	34.337	750.7	0.3952	35.996	741.8	0.4054
15	33.688	916.7	0.3751	33.855	746.9	0.3760	35.508	741.1	0.3861
16	33.034	909.5	0.3578	33.196	740.7	0.3587	34.834	739.2	0.3684
17	32.177	898.6	0.3420	32.335	735.7	0.3429	33.944	735.7	0.3525
18	31.135	884.1	0.3279	31.286	727.1	0.3287	32.852	730.5	0.3381
19	29.806	864.3	0.3154	29.950	718.6	0.3163	31.451	722.7	0.3254
20	27.968	838.3	0.3045	28.102	706.6	0.3053	29.508	711.5	0.3142
21	25.274	803.3	0.2950	25.394	690.2	0.2959	26.665	695.8	0.3045
22	21.242	758.6	0.2871	21.343	668.4	0.2879	22.416	673.4	0.2964
23	15.897	707.9	0.2807	15.972	639.7	0.2815	16.770	643.4	0.2898
24	6.056	612.8	0.2715	6.081	587.2	0.2722	6.349	588.5	0.2798

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	6.998	587.6	0.7396	7.182	580.9	0.7396	7.272	576.2	0.7396
2	24.429	645.4	0.7396	24.957	623.3	0.7396	25.210	608.1	0.7396
3	31.701	659.0	0.7396	32.299	632.2	0.7396	32.583	614.4	0.7396
4	35.116	650.4	0.7248	35.737	626.3	0.7254	36.029	610.2	0.7256
5	36.528	654.8	0.6883	37.175	629.1	0.6895	37.477	611.9	0.6900
6	37.144	660.7	0.6494	37.830	633.3	0.6513	38.151	615.2	0.6522
7	37.554	668.2	0.6114	38.289	638.6	0.6140	38.636	619.6	0.6153
8	37.952	676.7	0.5751	38.749	645.4	0.5787	39.130	625.4	0.5804
9	38.174	686.0	0.5419	39.042	653.2	0.5465	39.464	632.5	0.5488
10	38.319	695.3	0.5118	39.262	661.6	0.5175	39.730	640.6	0.5202
11	38.286	703.3	0.4846	39.305	670.2	0.4914	39.822	649.2	0.4948
12	38.141	709.9	0.4600	39.234	678.7	0.4679	39.802	658.4	0.4719
13	37.915	715.2	0.4376	39.077	686.7	0.4464	39.698	668.0	0.4511
14	37.594	719.6	0.4169	38.820	694.2	0.4266	39.495	677.9	0.4320
15	37.135	722.7	0.3978	38.421	701.2	0.4082	39.149	687.8	0.4144
16	36.481	725.0	0.3804	37.821	707.7	0.3914	38.602	697.8	0.3981
17	35.599	725.8	0.3644	36.984	713.1	0.3760	37.813	707.0	0.3833
18	34.496	724.6	0.3500	35.910	716.6	0.3618	36.777	714.3	0.3696
19	33.058	720.6	0.3371	34.476	717.1	0.3491	35.366	718.8	0.3571
20	31.042	712.6	0.3258	32.430	713.5	0.3377	33.320	718.8	0.3460
21	28.075	699.2	0.3159	29.380	703.5	0.3279	30.234	711.8	0.3363
22	23.623	677.9	0.3076	24.761	683.9	0.3196	25.519	693.4	0.3282
23	17.672	647.0	0.3009	18.531	652.2	0.3126	19.107	659.8	0.3210
24	6.648	589.3	0.2896	6.930	590.7	0.3001	7.118	592.8	0.3076

Table 4-35. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D4

	Assembly Number D4					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.364	570.7	0.7396	7.526	575.4	0.7396
2	25.476	593.1	0.7396	25.930	605.7	0.7396
3	32.893	598.9	0.7396	33.405	611.9	0.7396
4	36.359	598.1	0.7259	36.889	608.4	0.7264
5	37.828	600.4	0.6907	38.374	609.8	0.6916
6	38.526	603.1	0.6532	39.095	611.9	0.6547
7	39.040	606.4	0.6168	39.638	614.5	0.6189
8	39.564	609.8	0.5823	40.197	617.7	0.5851
9	39.931	613.5	0.5512	40.604	621.3	0.5545
10	40.231	617.3	0.5232	40.945	625.0	0.5271
11	40.358	621.3	0.4982	41.112	628.7	0.5029
12	40.373	625.3	0.4759	41.167	632.4	0.4811
13	40.312	630.3	0.4557	41.146	636.1	0.4617
14	40.166	636.9	0.4373	41.043	640.1	0.4440
15	39.904	646.8	0.4208	40.831	644.8	0.4281
16	39.461	659.2	0.4058	40.452	650.8	0.4141
17	38.773	671.4	0.3922	39.838	657.8	0.4015
18	37.807	680.0	0.3796	38.933	663.7	0.3898
19	36.424	683.5	0.3679	37.579	666.5	0.3788
20	34.358	681.0	0.3571	35.504	665.6	0.3686
21	31.194	671.4	0.3475	32.275	659.4	0.3592
22	26.327	653.1	0.3391	27.258	645.1	0.3509
23	19.686	626.3	0.3314	20.368	622.1	0.3429
24	7.294	581.1	0.3163	7.506	580.3	0.3262

Table 4-36. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D5

	Assembly Number D5								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.947	610.6	0.7396	2.625	643.7	0.7396
2	0.000		0.7396	3.493	767.8	0.7396	9.493	910.7	0.7396
3	0.000		0.7396	4.925	870.3	0.7396	13.062	1076.1	0.7396
4	0.000		0.7396	5.898	946.8	0.7396	14.865	1147.4	0.7279
5	0.000		0.7033	6.509	927.5	0.7229	15.546	1057.4	0.6841
6	0.000	Data Not	0.6515	6.862	953.0	0.6807	15.712	1043.6	0.6347
7	0.000	Required	0.6034	7.055	967.3	0.6339	15.681	1027.3	0.5852
8	0.000		0.5596	7.179	976.6	0.5874	15.650	1016.1	0.5389
9	0.000		0.5218	7.331	988.2	0.5427	15.758	1013.0	0.4965
10	0.000		0.4896	7.551	1005.1	0.5013	16.048	1018.0	0.4581
11	0.000		0.4619	7.646	1012.5	0.4648	16.210	1022.8	0.4240
12	0.000		0.4380	7.706	1017.3	0.4331	16.290	1024.2	0.3942
13	0.000		0.4168	7.734	1019.5	0.4055	16.334	1025.4	0.3681
14	0.000		0.3981	7.678	1015.1	0.3812	16.334	1029.4	0.3450
15	0.000		0.3812	7.535	1003.9	0.3600	16.283	1036.1	0.3244
16	0.000		0.3658	7.325	987.7	0.3416	16.084	1036.9	0.3062
17	0.000		0.3516	7.070	968.5	0.3257	15.783	1033.6	0.2902
18	0.000		0.3385	6.788	947.6	0.3118	15.394	1025.8	0.2761
19	0.000		0.3263	6.502	927.0	0.2998	14.907	1011.4	0.2637
20	0.000		0.3153	6.161	903.0	0.2893	14.154	982.6	0.2529
21	0.000		0.3057	5.546	861.4	0.2801	12.848	936.2	0.2433
22	0.000		0.2977	4.634	803.4	0.2724	10.813	865.7	0.2353
23	0.000		0.2917	3.474	735.3	0.2664	8.147	779.8	0.2290
24	0.000		0.2887	1.458	630.2	0.2629	3.485	649.0	0.2251

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.486	617.1	0.7396	5.020	620.6	0.7396	5.961	640.7	0.7396
2	12.794	807.9	0.7396	18.168	798.1	0.7396	21.195	856.1	0.7396
3	17.449	908.0	0.7396	24.131	867.8	0.7396	27.839	938.9	0.7396
4	19.882	905.0	0.7261	27.069	842.8	0.7253	31.083	911.3	0.7237
5	20.965	940.2	0.6850	28.308	850.2	0.6874	32.471	927.8	0.6864
6	21.405	965.1	0.6379	28.804	852.9	0.6441	33.041	936.1	0.6435
7	21.540	980.4	0.5897	28.996	855.6	0.5998	33.273	940.6	0.5994
8	21.570	986.2	0.5438	29.119	860.1	0.5575	33.424	943.8	0.5571
9	21.641	982.7	0.5013	29.311	865.9	0.5183	33.635	945.9	0.5179
10	21.810	971.4	0.4629	29.599	871.7	0.4827	33.917	945.2	0.4823
11	21.823	957.7	0.4292	29.743	878.2	0.4511	34.049	943.9	0.4507
12	21.733	942.4	0.3997	29.760	883.5	0.4231	34.039	940.8	0.4227
13	21.591	925.9	0.3739	29.697	887.4	0.3981	33.939	936.6	0.3978
14	21.384	907.9	0.3511	29.532	889.5	0.3757	33.728	931.5	0.3755
15	21.099	888.0	0.3308	29.242	889.2	0.3556	33.375	924.4	0.3554
16	20.640	866.4	0.3130	28.722	886.2	0.3376	32.767	914.7	0.3376
17	20.063	844.1	0.2973	28.017	879.9	0.3217	31.936	900.9	0.3218
18	19.425	824.5	0.2834	27.193	870.7	0.3074	30.959	884.5	0.3076
19	18.708	806.8	0.2713	26.213	858.0	0.2945	29.786	864.3	0.2948
20	17.702	787.8	0.2607	24.815	839.3	0.2832	28.133	838.3	0.2836
21	16.039	761.8	0.2514	22.527	810.5	0.2733	25.491	803.6	0.2738
22	13.469	724.4	0.2436	18.970	767.0	0.2652	21.459	759.3	0.2657
23	10.113	678.8	0.2374	14.266	711.4	0.2586	16.200	710.6	0.2593
24	4.172	601.1	0.2324	5.624	611.2	0.2513	6.337	613.7	0.2524

Table 4-36. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D5

	Assembly Number D5								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.802	644.6	0.7396	6.836	599.6	0.7396	7.292	612.8	0.7396
2	23.835	863.4	0.7396	23.942	694.0	0.7396	25.302	731.2	0.7396
3	31.100	952.8	0.7396	31.233	730.4	0.7396	32.844	767.2	0.7396
4	34.635	927.1	0.7224	34.782	722.2	0.7226	36.494	748.3	0.7239
5	36.152	944.1	0.6853	36.311	736.9	0.6855	38.088	756.4	0.6881
6	36.767	950.1	0.6424	36.938	751.9	0.6429	38.780	764.6	0.6468
7	37.004	950.8	0.5984	37.189	769.8	0.5990	39.101	773.4	0.6043
8	37.145	949.5	0.5560	37.344	788.2	0.5568	39.329	782.8	0.5631
9	37.341	947.5	0.5169	37.555	808.3	0.5177	39.600	790.6	0.5248
10	37.599	944.3	0.4814	37.826	826.2	0.4823	39.911	795.8	0.4899
11	37.710	941.5	0.4498	37.945	837.4	0.4508	40.053	798.9	0.4585
12	37.675	938.1	0.4219	37.912	840.2	0.4229	40.030	800.2	0.4306
13	37.552	935.1	0.3972	37.787	837.4	0.3980	39.901	799.7	0.4056
14	37.318	932.1	0.3749	37.547	828.9	0.3758	39.646	797.7	0.3831
15	36.933	927.9	0.3550	37.155	819.2	0.3558	39.226	794.0	0.3629
16	36.271	920.9	0.3372	36.484	806.9	0.3380	38.514	788.6	0.3450
17	35.350	909.3	0.3214	35.553	793.5	0.3221	37.524	781.0	0.3289
18	34.249	893.6	0.3073	34.440	777.6	0.3079	36.331	770.8	0.3144
19	32.907	872.6	0.2946	33.085	760.8	0.2953	34.867	757.0	0.3015
20	31.027	845.3	0.2834	31.188	739.4	0.2840	32.826	739.2	0.2900
21	28.073	809.1	0.2737	28.214	715.0	0.2744	29.660	716.2	0.2802
22	23.623	763.2	0.2657	23.738	684.4	0.2663	24.925	686.2	0.2719
23	17.870	712.4	0.2594	17.953	648.4	0.2600	18.823	651.1	0.2654
24	6.967	615.5	0.2528	6.996	591.3	0.2533	7.300	592.2	0.2583

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.659	598.6	0.7396	7.944	593.1	0.7396	8.092	587.4	0.7396
2	26.370	680.1	0.7396	27.177	659.4	0.7396	27.588	640.4	0.7396
3	34.088	701.9	0.7396	35.021	676.3	0.7396	35.485	651.5	0.7396
4	37.813	689.6	0.7250	38.798	666.4	0.7257	39.279	642.9	0.7260
5	39.476	696.9	0.6903	40.511	672.0	0.6919	41.011	646.2	0.6927
6	40.250	705.7	0.6504	41.351	679.6	0.6531	41.881	651.6	0.6544
7	40.667	716.1	0.6094	41.848	688.9	0.6133	42.420	659.1	0.6152
8	40.996	727.2	0.5697	42.266	699.3	0.5749	42.890	668.5	0.5775
9	41.361	737.6	0.5328	42.723	710.3	0.5392	43.406	679.4	0.5425
10	41.745	745.9	0.4987	43.191	720.5	0.5061	43.935	690.8	0.5102
11	41.946	752.6	0.4680	43.467	729.7	0.4762	44.270	702.0	0.4809
12	41.971	758.1	0.4405	43.559	738.0	0.4494	44.419	713.0	0.4546
13	41.887	763.3	0.4158	43.536	745.6	0.4250	44.448	723.1	0.4308
14	41.679	768.8	0.3934	43.379	752.1	0.4030	44.341	733.1	0.4091
15	41.305	774.2	0.3733	43.046	757.3	0.3829	44.056	742.7	0.3893
16	40.629	778.5	0.3553	42.400	761.2	0.3649	43.454	751.6	0.3715
17	39.652	780.0	0.3391	41.438	763.1	0.3486	42.529	759.2	0.3554
18	38.434	777.1	0.3245	40.213	762.2	0.3339	41.325	763.6	0.3406
19	36.900	768.8	0.3113	38.639	757.1	0.3204	39.750	763.4	0.3270
20	34.737	754.7	0.2995	36.394	746.7	0.3083	37.474	757.0	0.3149
21	31.380	733.1	0.2892	32.899	729.4	0.2979	33.907	742.3	0.3044
22	26.359	701.8	0.2807	27.648	701.6	0.2891	28.514	714.1	0.2955
23	19.873	661.9	0.2737	20.825	662.6	0.2819	21.471	672.6	0.2881
24	7.662	595.2	0.2659	7.991	595.5	0.2732	8.213	598.5	0.2789

Table 4-36. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D5

	Assembly Number D5					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.245	578.5	0.7396	8.375	572.2	0.7396
2	28.016	614.6	0.7396	28.370	595.2	0.7396
3	35.985	624.3	0.7396	36.382	599.7	0.7396
4	39.817	621.6	0.7265	40.227	597.7	0.7267
5	41.581	625.2	0.6935	42.005	598.9	0.6941
6	42.485	629.1	0.6557	42.930	600.8	0.6568
7	43.061	633.4	0.6172	43.534	603.3	0.6186
8	43.569	637.8	0.5801	44.077	606.4	0.5820
9	44.123	642.3	0.5455	44.667	609.6	0.5480
10	44.685	646.2	0.5136	45.266	613.0	0.5165
11	45.052	650.0	0.4846	45.669	616.2	0.4880
12	45.230	653.4	0.4584	45.883	619.5	0.4622
13	45.288	656.9	0.4346	45.977	622.8	0.4388
14	45.210	660.4	0.4129	45.935	626.0	0.4174
15	44.953	663.7	0.3931	45.717	629.6	0.3980
16	44.381	667.4	0.3753	45.187	633.5	0.3805
17	43.479	670.2	0.3592	44.329	637.6	0.3646
18	42.282	671.0	0.3444	43.173	641.4	0.3500
19	40.689	668.8	0.3308	41.608	644.0	0.3367
20	38.365	663.0	0.3185	39.289	644.5	0.3245
21	34.714	652.9	0.3078	35.601	641.0	0.3140
22	29.188	637.3	0.2989	29.960	630.4	0.3051
23	21.962	616.2	0.2912	22.534	612.2	0.2971
24	8.382	580.3	0.2818	8.573	578.4	0.2870

Table 4-37. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D6

	Assembly Number D6								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.446	639.2	0.7396	3.214	648.5	0.7396
2	0.000		0.7396	5.357	903.6	0.7396	11.729	937.7	0.7396
3	0.000		0.7396	7.530	1089.1	0.7396	15.786	1086.0	0.7396
4	0.000		0.7284	8.720	1100.6	0.7104	17.493	1038.0	0.7067
5	0.000		0.6683	9.160	1138.9	0.6493	17.891	1034.9	0.6464
6	0.000	Data Not	0.6109	9.232	1145.3	0.5884	17.819	1024.5	0.5874
7	0.000	Required	0.5580	9.152	1138.2	0.5329	17.627	1016.4	0.5340
8	0.000		0.5138	9.019	1126.5	0.4856	17.430	1011.9	0.4879
9	0.000		0.4773	8.760	1104.0	0.4457	17.181	1012.6	0.4485
10	0.000		0.4469	8.448	1077.5	0.4126	16.933	1017.1	0.4148
11	0.000		0.4211	8.126	1050.9	0.3850	16.668	1021.2	0.3859
12	0.000		0.3988	7.817	1026.0	0.3616	16.403	1024.4	0.3608
13	0.000		0.3790	7.530	1003.5	0.3418	16.143	1026.3	0.3390
14	0.000		0.3610	7.265	983.1	0.3247	15.889	1027.1	0.3197
15	0.000		0.3443	7.018	964.6	0.3100	15.634	1026.5	0.3027
16	0.000		0.3289	6.777	946.8	0.2970	15.358	1024.0	0.2875
17	0.000		0.3149	6.528	928.8	0.2855	15.025	1018.0	0.2739
18	0.000		0.3022	6.246	908.9	0.2754	14.589	1007.0	0.2619
19	0.000		0.2910	5.904	885.4	0.2665	13.986	988.7	0.2512
20	0.000		0.2820	5.463	855.9	0.2587	13.109	959.0	0.2417
21	0.000		0.2742	4.872	818.1	0.2521	11.813	912.9	0.2335
22	0.000		0.2680	4.042	767.9	0.2462	9.879	845.3	0.2265
23	0.000		0.2634	3.006	709.6	0.2417	7.377	763.6	0.2209
24	0.000		0.2607	1.244	619.9	0.2390	3.114	642.0	0.2176

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	4.098	618.7	0.7396	5.344	608.7	0.7396	6.267	639.0	0.7396
2	14.998	805.1	0.7396	19.193	739.6	0.7396	22.108	843.1	0.7396
3	19.985	889.9	0.7396	25.095	784.7	0.7396	28.600	913.5	0.7396
4	22.223	880.8	0.7103	27.739	767.7	0.7157	31.505	884.5	0.7159
5	22.978	911.1	0.6568	28.735	778.1	0.6695	32.650	900.5	0.6715
6	23.152	932.6	0.6031	29.116	787.1	0.6225	33.125	910.7	0.6258
7	23.109	945.9	0.5529	29.282	796.4	0.5782	33.350	917.2	0.5820
8	22.974	951.5	0.5077	29.372	806.4	0.5381	33.483	922.0	0.5419
9	22.721	951.1	0.4681	29.367	817.7	0.5025	33.516	926.2	0.5060
10	22.417	946.1	0.4335	29.317	829.4	0.4712	33.493	929.2	0.4742
11	22.049	936.8	0.4037	29.186	840.5	0.4436	33.375	930.7	0.4460
12	21.646	924.6	0.3777	28.980	849.8	0.4189	33.171	930.9	0.4208
13	21.229	911.0	0.3551	28.723	857.4	0.3967	32.898	929.1	0.3983
14	20.807	896.6	0.3350	28.419	863.1	0.3765	32.563	925.6	0.3778
15	20.372	881.4	0.3174	28.054	866.5	0.3582	32.147	920.0	0.3592
16	19.899	865.2	0.3016	27.594	867.2	0.3414	31.608	911.3	0.3423
17	19.359	848.4	0.2876	27.008	864.9	0.3263	30.913	899.4	0.3270
18	18.727	832.9	0.2752	26.273	859.9	0.3127	30.039	884.5	0.3133
19	17.929	817.7	0.2643	25.300	851.6	0.3006	28.885	865.5	0.3012
20	16.821	800.1	0.2548	23.894	837.5	0.2899	27.237	840.8	0.2904
21	15.183	774.7	0.2465	21.737	813.5	0.2807	24.745	807.8	0.2812
22	12.706	736.1	0.2395	18.364	773.8	0.2731	20.908	764.3	0.2735
23	9.461	686.4	0.2339	13.763	717.4	0.2669	15.712	711.9	0.2674
24	3.846	603.7	0.2288	5.341	612.7	0.2583	6.062	614.3	0.2594

Table 4-37. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D6

	Assembly Number D6								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.025	635.8	0.7396	7.046	583.8	0.7396	7.484	610.6	0.7396
2	24.420	819.4	0.7396	24.487	640.9	0.7396	25.795	723.9	0.7396
3	31.409	887.0	0.7396	31.509	684.5	0.7396	33.083	761.8	0.7396
4	34.645	874.9	0.7164	34.803	735.7	0.7165	36.529	750.1	0.7182
5	35.970	897.3	0.6734	36.162	778.9	0.6738	37.978	761.3	0.6770
6	36.546	910.2	0.6287	36.754	800.2	0.6293	38.632	769.1	0.6340
7	36.821	916.6	0.5854	37.038	812.4	0.5862	38.976	776.8	0.5921
8	36.974	919.2	0.5452	37.198	822.0	0.5460	39.198	784.7	0.5530
9	37.020	920.9	0.5090	37.250	830.3	0.5099	39.308	792.3	0.5175
10	37.007	922.2	0.4768	37.239	833.1	0.4777	39.342	798.2	0.4856
11	36.896	923.1	0.4482	37.127	831.7	0.4491	39.253	801.2	0.4570
12	36.694	923.3	0.4227	36.922	827.6	0.4236	39.052	801.8	0.4314
13	36.414	922.4	0.3999	36.637	820.6	0.4006	38.755	800.2	0.4082
14	36.066	920.7	0.3791	36.283	812.4	0.3799	38.377	797.0	0.3871
15	35.624	917.4	0.3604	35.834	802.9	0.3611	37.893	792.4	0.3680
16	35.039	911.4	0.3433	35.241	792.1	0.3440	37.253	786.3	0.3507
17	34.269	901.9	0.3279	34.461	778.9	0.3286	36.412	778.4	0.3350
18	33.285	888.0	0.3142	33.468	767.2	0.3148	35.339	768.2	0.3210
19	31.980	869.4	0.3019	32.151	751.9	0.3025	33.918	755.1	0.3085
20	30.123	844.3	0.2911	30.278	732.0	0.2917	31.906	738.0	0.2974
21	27.344	811.1	0.2818	27.480	709.0	0.2823	28.920	715.5	0.2879
22	23.111	767.4	0.2741	23.224	682.1	0.2747	24.411	686.2	0.2800
23	17.404	714.6	0.2680	17.487	648.4	0.2685	18.364	651.9	0.2737
24	6.703	616.5	0.2604	6.732	591.3	0.2609	7.039	592.5	0.2658

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.882	602.1	0.7396	8.165	592.9	0.7396	8.304	585.7	0.7396
2	26.942	689.8	0.7396	27.735	657.6	0.7396	28.116	634.1	0.7396
3	34.425	714.3	0.7396	35.339	673.7	0.7396	35.772	645.0	0.7396
4	37.952	700.6	0.7195	38.913	663.6	0.7203	39.364	637.6	0.7208
5	39.475	708.6	0.6798	40.483	669.0	0.6817	40.952	640.8	0.6825
6	40.219	718.4	0.6384	41.289	676.0	0.6414	41.788	646.1	0.6427
7	40.661	729.2	0.5981	41.810	685.2	0.6023	42.351	653.5	0.6042
8	40.986	740.7	0.5604	42.224	695.6	0.5658	42.819	663.3	0.5684
9	41.194	751.8	0.5260	42.528	707.0	0.5326	43.185	674.6	0.5359
10	41.309	761.1	0.4949	42.736	718.2	0.5026	43.460	687.0	0.5067
11	41.279	768.0	0.4668	42.789	728.3	0.4753	43.579	699.5	0.4801
12	41.116	772.5	0.4413	42.697	737.1	0.4504	43.551	711.8	0.4558
13	40.841	775.1	0.4180	42.485	745.0	0.4276	43.399	723.5	0.4335
14	40.472	776.1	0.3968	42.167	751.5	0.4065	43.138	734.9	0.4130
15	39.985	775.8	0.3774	41.722	756.8	0.3873	42.745	745.3	0.3940
16	39.334	774.5	0.3599	41.100	760.5	0.3697	42.170	754.9	0.3767
17	38.468	771.5	0.3440	40.250	762.6	0.3537	41.356	762.3	0.3607
18	37.348	766.0	0.3296	39.124	761.8	0.3392	40.252	766.9	0.3462
19	35.846	756.6	0.3168	37.587	757.3	0.3261	38.715	766.9	0.3330
20	33.712	742.7	0.3055	35.376	747.5	0.3145	36.473	760.5	0.3213
21	30.542	722.2	0.2957	32.067	730.2	0.3044	33.090	745.3	0.3111
22	25.764	693.2	0.2875	27.059	702.3	0.2960	27.939	716.9	0.3026
23	19.364	656.8	0.2810	20.326	663.8	0.2892	20.984	674.8	0.2955
24	7.385	593.7	0.2725	7.716	595.7	0.2801	7.941	599.0	0.2858

Table 4-37. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D6

	Assembly Number D6					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.381	568.8	0.7396	8.482	569.2	0.7396
2	28.325	585.7	0.7396	28.596	586.6	0.7396
3	36.010	589.5	0.7396	36.312	589.8	0.7396
4	39.616	589.5	0.7210	39.925	588.8	0.7212
5	41.218	591.0	0.6830	41.536	589.6	0.6836
6	42.070	592.8	0.6435	42.402	590.8	0.6443
7	42.653	595.0	0.6053	43.005	592.6	0.6065
8	43.143	597.4	0.5698	43.519	594.7	0.5714
9	43.535	600.3	0.5377	43.939	597.2	0.5396
10	43.838	603.5	0.5088	44.270	599.7	0.5111
11	43.985	606.6	0.4826	44.448	602.4	0.4854
12	43.988	610.1	0.4587	44.483	605.3	0.4620
13	43.872	614.2	0.4369	44.400	608.2	0.4406
14	43.654	619.0	0.4169	44.218	611.4	0.4210
15	43.313	625.0	0.3985	43.917	615.0	0.4031
16	42.794	631.5	0.3815	43.443	619.1	0.3867
17	42.032	637.5	0.3661	42.727	623.3	0.3716
18	40.963	641.6	0.3518	41.699	627.1	0.3578
19	39.439	643.1	0.3387	40.199	629.3	0.3450
20	37.181	641.2	0.3270	37.945	629.6	0.3334
21	33.749	635.5	0.3166	34.479	626.5	0.3232
22	28.498	624.0	0.3079	29.133	617.9	0.3144
23	21.391	606.7	0.3005	21.862	603.1	0.3068
24	8.073	576.2	0.2901	8.225	575.0	0.2956

Table 4-38. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D7

	Assembly Number D7								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.316	631.6	0.7396	2.872	637.2	0.7396
2	0.000		0.7396	4.853	864.9	0.7396	10.457	882.8	0.7396
3	0.000		0.7396	6.875	1029.8	0.7396	14.334	1020.8	0.7396
4	0.000		0.7360	8.095	1048.4	0.7233	16.200	990.3	0.7212
5	0.000		0.6783	8.698	1098.7	0.6678	16.917	998.3	0.6665
6	0.000	Data Not	0.6200	8.995	1124.4	0.6078	17.233	999.6	0.6083
7	0.000	Required	0.5658	8.922	1118.0	0.5514	17.161	999.7	0.5542
8	0.000		0.5202	8.692	1098.2	0.5030	16.948	1000.9	0.5071
9	0.000		0.4825	8.393	1072.9	0.4626	16.690	1003.8	0.4669
10	0.000		0.4512	8.073	1046.6	0.4290	16.423	1007.5	0.4324
11	0.000		0.4248	7.757	1021.3	0.4008	16.149	1010.5	0.4025
12	0.000		0.4022	7.458	997.9	0.3770	15.882	1012.8	0.3766
13	0.000		0.3825	7.184	977.0	0.3565	15.632	1014.5	0.3539
14	0.000		0.3649	6.935	958.4	0.3389	15.401	1015.8	0.3337
15	0.000		0.3491	6.708	941.8	0.3233	15.215	1018.7	0.3158
16	0.000		0.3349	6.496	926.6	0.3097	15.064	1023.1	0.2997
17	0.000		0.3220	6.277	911.1	0.2975	14.799	1019.8	0.2851
18	0.000		0.3103	6.012	892.7	0.2867	14.408	1010.8	0.2720
19	0.000		0.2998	5.675	869.9	0.2774	13.840	994.5	0.2605
20	0.000		0.2909	5.233	841.0	0.2691	12.970	965.1	0.2504
21	0.000		0.2837	4.648	804.2	0.2620	11.655	917.1	0.2415
22	0.000		0.2779	3.856	757.1	0.2562	9.721	847.0	0.2343
23	0.000		0.2736	2.874	702.4	0.2516	7.257	764.3	0.2287
24	0.000		0.2711	1.209	618.2	0.2488	3.099	642.9	0.2252

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	4.196	650.2	0.7396	6.139	637.8	0.7396	7.057	638.6	0.7396
2	15.356	958.9	0.7396	21.704	849.5	0.7396	24.515	831.2	0.7396
3	20.626	1111.0	0.7396	28.267	922.3	0.7396	31.718	906.9	0.7396
4	23.181	1091.5	0.7097	31.266	886.4	0.7090	35.054	886.9	0.7100
5	24.254	1129.5	0.6540	32.515	895.2	0.6580	36.490	907.0	0.6611
6	24.748	1149.0	0.5947	33.141	901.8	0.6035	37.214	917.8	0.6085
7	24.763	1158.6	0.5392	33.366	912.5	0.5525	37.505	925.1	0.5586
8	24.546	1158.2	0.4913	33.443	927.8	0.5081	37.638	931.3	0.5147
9	24.197	1148.1	0.4506	33.423	945.1	0.4702	37.674	937.6	0.4766
10	23.774	1131.0	0.4163	33.341	963.5	0.4376	37.638	942.9	0.4436
11	23.282	1107.6	0.3869	33.175	981.4	0.4090	37.490	944.9	0.4147
12	22.750	1079.7	0.3618	32.934	997.7	0.3840	37.252	945.2	0.3893
13	22.200	1049.1	0.3400	32.624	1011.4	0.3618	36.937	944.7	0.3667
14	21.640	1016.6	0.3211	32.237	1021.3	0.3420	36.536	943.1	0.3466
15	21.095	982.4	0.3045	31.781	1026.5	0.3242	36.047	939.3	0.3285
16	20.560	947.1	0.2898	31.233	1025.7	0.3083	35.431	931.7	0.3123
17	19.907	912.9	0.2765	30.470	1019.4	0.2938	34.559	919.5	0.2976
18	19.153	882.0	0.2647	29.507	1007.4	0.2807	33.456	904.2	0.2843
19	18.242	853.9	0.2542	28.263	988.5	0.2689	32.024	884.0	0.2723
20	17.008	825.0	0.2449	26.513	960.1	0.2583	30.014	856.9	0.2617
21	15.236	790.3	0.2368	23.917	916.6	0.2492	27.043	819.3	0.2525
22	12.682	745.5	0.2301	20.091	853.4	0.2417	22.710	771.1	0.2450
23	9.467	694.6	0.2249	15.151	774.9	0.2358	17.197	720.2	0.2392
24	3.905	608.0	0.2221	6.003	634.0	0.2318	6.768	617.6	0.2351

Table 4-38. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D7

	Assembly Number D7								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.934	648.5	0.7396	7.958	587.4	0.7396	8.287	597.5	0.7396
2	27.163	864.5	0.7396	27.232	643.5	0.7396	28.163	672.9	0.7396
3	35.003	956.4	0.7396	35.086	661.7	0.7396	36.173	693.7	0.7396
4	38.665	934.8	0.7100	38.758	659.5	0.7101	39.919	683.3	0.7114
5	40.247	954.3	0.6622	40.348	668.4	0.6624	41.575	690.8	0.6651
6	41.011	959.7	0.6104	41.123	680.9	0.6108	42.422	699.0	0.6151
7	41.299	959.3	0.5610	41.424	696.0	0.5616	42.804	708.4	0.5675
8	41.421	957.8	0.5171	41.561	713.8	0.5178	43.027	718.6	0.5253
9	41.450	956.9	0.4789	41.607	734.5	0.4799	43.154	728.2	0.4885
10	41.414	956.9	0.4457	41.587	754.5	0.4468	43.202	736.4	0.4564
11	41.254	955.2	0.4166	41.441	772.4	0.4179	43.110	743.0	0.4281
12	41.004	953.6	0.3909	41.197	780.2	0.3923	42.906	748.0	0.4029
13	40.676	951.9	0.3683	40.872	784.2	0.3696	42.608	751.3	0.3804
14	40.263	950.3	0.3481	40.457	781.6	0.3493	42.203	752.5	0.3601
15	39.751	947.2	0.3299	39.941	776.3	0.3311	41.681	751.8	0.3417
16	39.089	941.1	0.3135	39.272	767.2	0.3147	40.989	748.9	0.3249
17	38.135	930.2	0.2988	38.311	758.3	0.2998	39.989	744.1	0.3098
18	36.916	915.2	0.2855	37.082	745.6	0.2865	38.705	737.4	0.2962
19	35.319	894.2	0.2735	35.475	733.2	0.2745	37.020	728.0	0.2839
20	33.076	865.4	0.2629	33.219	717.4	0.2638	34.659	715.5	0.2729
21	29.771	825.8	0.2537	29.898	698.3	0.2546	31.189	698.1	0.2635
22	24.988	775.5	0.2462	25.093	673.0	0.2470	26.172	674.1	0.2557
23	18.956	721.3	0.2404	19.034	642.9	0.2413	19.828	642.9	0.2496
24	7.444	619.6	0.2363	7.471	589.2	0.2370	7.745	589.1	0.2444

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	8.542	586.4	0.7396	8.741	582.7	0.7396	8.847	579.3	0.7396
2	28.865	636.6	0.7396	29.408	625.2	0.7396	29.691	614.2	0.7396
3	36.980	648.8	0.7396	37.601	635.2	0.7396	37.918	621.0	0.7396
4	40.775	642.5	0.7124	41.433	630.2	0.7130	41.763	616.7	0.7134
5	42.485	647.8	0.6670	43.184	634.7	0.6684	43.527	618.9	0.6691
6	43.395	654.1	0.6182	44.144	640.1	0.6205	44.510	622.8	0.6216
7	43.854	661.9	0.5719	44.664	646.8	0.5752	45.060	628.0	0.5768
8	44.163	670.6	0.5310	45.043	654.6	0.5354	45.478	634.8	0.5374
9	44.378	679.7	0.4956	45.335	663.2	0.5010	45.816	642.9	0.5036
10	44.508	688.2	0.4646	45.543	672.0	0.4711	46.071	651.2	0.4743
11	44.490	696.1	0.4373	45.601	680.8	0.4449	46.177	659.8	0.4487
12	44.357	703.6	0.4132	45.540	689.1	0.4215	46.165	668.7	0.4260
13	44.129	711.2	0.3914	45.380	697.1	0.4006	46.054	677.7	0.4057
14	43.801	719.6	0.3719	45.115	704.6	0.3817	45.836	686.5	0.3874
15	43.356	728.0	0.3541	44.725	711.2	0.3645	45.493	695.3	0.3706
16	42.730	735.4	0.3379	44.145	716.7	0.3487	44.958	703.9	0.3552
17	41.771	740.0	0.3230	43.221	721.0	0.3341	44.077	712.2	0.3411
18	40.495	740.9	0.3095	41.962	723.1	0.3206	42.852	718.8	0.3279
19	38.781	737.6	0.2970	40.238	721.8	0.3083	41.144	722.0	0.3158
20	36.343	729.0	0.2859	37.757	716.6	0.2971	38.657	720.8	0.3048
21	32.734	713.8	0.2762	34.058	705.8	0.2874	34.917	712.8	0.2953
22	27.484	688.9	0.2682	28.631	684.9	0.2794	29.388	693.2	0.2874
23	20.798	653.8	0.2615	21.656	652.1	0.2724	22.228	659.1	0.2801
24	8.074	592.1	0.2548	8.366	591.7	0.2643	8.560	593.8	0.2711

Table 4-38. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D7

	Assembly Number D7					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.917	567.9	0.7396	9.031	570.5	0.7396
2	29.882	583.4	0.7396	30.186	590.0	0.7396
3	38.139	587.3	0.7396	38.480	593.8	0.7396
4	42.002	588.0	0.7137	42.354	592.6	0.7140
5	43.783	589.9	0.6696	44.145	593.5	0.6703
6	44.785	592.0	0.6224	45.159	594.5	0.6235
7	45.359	594.7	0.5780	45.751	596.1	0.5794
8	45.802	597.4	0.5389	46.218	598.2	0.5408
9	46.166	600.3	0.5055	46.608	600.5	0.5078
10	46.448	603.4	0.4766	46.917	602.9	0.4792
11	46.580	606.3	0.4513	47.078	605.5	0.4544
12	46.593	609.1	0.4290	47.120	608.1	0.4325
13	46.508	612.0	0.4090	47.063	610.6	0.4129
14	46.314	614.7	0.3911	46.898	613.2	0.3954
15	45.995	617.5	0.3746	46.606	615.7	0.3792
16	45.482	620.0	0.3594	46.120	618.1	0.3644
17	44.621	622.2	0.3455	45.286	620.6	0.3507
18	43.410	623.8	0.3326	44.095	622.4	0.3379
19	41.704	624.1	0.3205	42.398	623.2	0.3260
20	39.203	622.5	0.3096	39.887	622.3	0.3152
21	35.428	618.5	0.3001	36.076	619.0	0.3059
22	29.830	610.7	0.2922	30.396	611.6	0.2979
23	22.555	597.8	0.2847	22.981	599.1	0.2903
24	8.665	573.2	0.2749	8.804	573.8	0.2798

Table 4-39. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D8

	Assembly Number D8								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.100	619.3	0.7396	2.876	648.9	0.7396
2	0.000		0.7396	4.063	807.2	0.7396	10.392	934.5	0.7396
3	0.000		0.7396	5.705	931.2	0.7396	14.111	1098.7	0.7396
4	0.000		0.7306	6.773	1020.8	0.7396	15.899	1161.5	0.7214
5	0.000		0.6735	7.388	992.5	0.7002	16.555	1067.2	0.6708
6	0.000	Data Not	0.6180	7.699	1016.7	0.6492	16.699	1054.7	0.6161
7	0.000	Required	0.5662	7.822	1026.4	0.5979	16.640	1041.3	0.5638
8	0.000		0.5222	7.839	1027.8	0.5491	16.532	1032.1	0.5159
9	0.000		0.4853	7.821	1026.4	0.5056	16.461	1028.3	0.4738
10	0.000		0.4544	7.809	1025.4	0.4675	16.451	1028.4	0.4369
11	0.000		0.4282	7.825	1026.7	0.4344	16.468	1028.5	0.4049
12	0.000		0.4057	7.894	1032.2	0.4055	16.531	1028.1	0.3769
13	0.000		0.3860	7.988	1039.7	0.3801	16.623	1027.9	0.3524
14	0.000		0.3685	7.969	1038.2	0.3575	16.622	1029.2	0.3305
15	0.000		0.3528	7.846	1028.4	0.3378	16.525	1031.1	0.3113
16	0.000		0.3385	7.648	1012.7	0.3206	16.334	1031.6	0.2942
17	0.000		0.3253	7.401	993.5	0.3057	16.049	1028.9	0.2792
18	0.000		0.3131	7.115	971.8	0.2928	15.655	1021.1	0.2659
19	0.000		0.3016	6.776	946.7	0.2814	15.093	1005.2	0.2541
20	0.000		0.2913	6.326	914.5	0.2716	14.246	977.6	0.2437
21	0.000		0.2829	5.677	870.1	0.2632	12.922	932.5	0.2346
22	0.000		0.2761	4.731	809.4	0.2562	10.878	863.7	0.2271
23	0.000		0.2708	3.545	739.3	0.2509	8.204	779.0	0.2211
24	0.000		0.2680	1.479	631.2	0.2475	3.500	648.8	0.2173

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.457	597.8	0.7396	5.063	623.6	0.7396	5.930	634.0	0.7396
2	12.669	722.6	0.7396	18.201	806.3	0.7396	20.987	828.4	0.7396
3	17.198	789.4	0.7396	24.063	877.9	0.7396	27.474	902.0	0.7396
4	19.539	794.7	0.7256	27.044	858.0	0.7249	30.699	872.8	0.7243
5	20.655	829.9	0.6818	28.455	872.3	0.6855	32.197	882.0	0.6861
6	21.446	882.2	0.6346	29.447	882.2	0.6419	33.192	882.3	0.6436
7	22.655	995.1	0.5891	30.630	880.9	0.5985	34.331	877.7	0.6009
8	23.049	1044.0	0.5410	31.125	885.9	0.5535	34.843	879.5	0.5567
9	22.994	1045.6	0.4949	31.280	896.4	0.5106	35.055	885.5	0.5146
10	22.839	1031.2	0.4543	31.361	908.4	0.4724	35.195	891.8	0.4769
11	22.632	1009.4	0.4195	31.371	919.5	0.4391	35.250	896.6	0.4439
12	22.430	984.2	0.3896	31.350	929.0	0.4099	35.273	901.4	0.4148
13	22.241	958.2	0.3637	31.300	936.3	0.3841	35.280	907.6	0.3890
14	21.954	932.5	0.3410	31.108	941.3	0.3611	35.171	916.7	0.3661
15	21.562	906.8	0.3212	30.758	943.5	0.3409	34.913	926.9	0.3458
16	21.064	880.8	0.3038	30.231	942.0	0.3229	34.459	935.0	0.3277
17	20.482	856.4	0.2886	29.534	935.9	0.3069	33.783	937.4	0.3116
18	19.880	839.7	0.2756	28.727	925.2	0.2929	32.912	930.2	0.2973
19	19.334	841.0	0.2653	27.909	911.1	0.2815	31.915	910.4	0.2853
20	18.435	836.9	0.2562	26.839	902.4	0.2723	30.544	878.1	0.2756
21	16.865	817.7	0.2480	24.735	875.7	0.2640	28.036	836.6	0.2669
22	14.210	772.0	0.2404	20.952	822.1	0.2560	23.728	785.7	0.2589
23	10.672	711.7	0.2342	15.804	751.4	0.2495	17.951	728.9	0.2524
24	4.370	611.7	0.2286	6.238	625.8	0.2428	7.041	620.5	0.2459

Table 4-39. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D8

	Assembly Number D8								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.695	636.5	0.7396	6.733	604.5	0.7396	7.110	603.3	0.7396
2	23.394	831.9	0.7396	23.510	706.4	0.7396	24.640	699.5	0.7396
3	30.449	910.7	0.7396	30.591	743.4	0.7396	31.933	728.7	0.7396
4	33.944	887.9	0.7237	34.100	733.2	0.7239	35.522	713.4	0.7250
5	35.569	903.9	0.6862	35.733	743.1	0.6864	37.201	718.8	0.6890
6	36.591	907.4	0.6442	36.761	750.7	0.6446	38.266	723.2	0.6485
7	37.696	903.0	0.6018	37.868	753.2	0.6024	39.404	726.9	0.6074
8	38.204	902.5	0.5581	38.381	759.6	0.5587	39.968	733.1	0.5650
9	38.434	904.8	0.5164	38.615	764.7	0.5171	40.263	740.5	0.5246
10	38.601	908.2	0.4790	38.785	768.5	0.4798	40.485	746.8	0.4881
11	38.682	911.6	0.4461	38.866	768.5	0.4470	40.606	751.8	0.4558
12	38.729	914.7	0.4171	38.913	768.5	0.4180	40.672	754.2	0.4271
13	38.760	917.8	0.3914	38.940	763.4	0.3923	40.703	754.7	0.4014
14	38.680	921.5	0.3686	38.857	759.5	0.3694	40.611	753.5	0.3784
15	38.449	925.0	0.3482	38.622	754.5	0.3490	40.359	751.4	0.3578
16	38.011	927.1	0.3301	38.179	748.2	0.3308	39.890	748.2	0.3395
17	37.321	925.3	0.3138	37.483	740.7	0.3146	39.155	743.4	0.3230
18	36.389	917.4	0.2995	36.544	732.0	0.3002	38.160	736.6	0.3083
19	35.252	899.5	0.2873	35.396	718.6	0.2880	36.928	726.4	0.2958
20	33.648	870.5	0.2773	33.780	704.2	0.2780	35.190	712.0	0.2853
21	30.816	831.9	0.2684	30.932	685.5	0.2690	32.185	693.7	0.2761
22	26.075	783.0	0.2604	26.172	663.9	0.2610	27.220	670.6	0.2679
23	19.767	727.0	0.2539	19.840	637.5	0.2545	20.624	641.9	0.2612
24	7.740	621.6	0.2476	7.766	588.2	0.2481	8.044	589.6	0.2544

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.415	591.8	0.7396	7.625	584.0	0.7396	7.728	578.7	0.7396
2	25.529	658.5	0.7396	26.128	632.3	0.7396	26.418	615.6	0.7396
3	32.969	676.2	0.7396	33.656	643.7	0.7396	33.985	623.5	0.7396
4	36.613	666.0	0.7260	37.330	636.6	0.7265	37.670	618.4	0.7268
5	38.339	670.8	0.6909	39.084	639.7	0.6921	39.436	620.4	0.6927
6	39.460	676.6	0.6516	40.243	643.8	0.6536	40.613	623.5	0.6545
7	40.661	683.1	0.6118	41.491	649.0	0.6147	41.886	627.9	0.6160
8	41.313	692.4	0.5709	42.209	656.4	0.5747	42.641	634.3	0.5766
9	41.703	702.5	0.5320	42.679	665.3	0.5370	43.159	642.7	0.5394
10	42.011	711.7	0.4968	43.070	674.8	0.5030	43.601	651.7	0.5060
11	42.200	719.1	0.4655	43.338	683.9	0.4728	43.923	661.4	0.4765
12	42.319	725.0	0.4374	43.528	692.2	0.4457	44.168	671.5	0.4501
13	42.387	729.0	0.4121	43.659	699.6	0.4211	44.352	681.3	0.4262
14	42.321	731.9	0.3893	43.650	706.4	0.3990	44.395	691.0	0.4047
15	42.085	733.7	0.3688	43.464	712.4	0.3789	44.260	700.7	0.3851
16	41.621	734.3	0.3504	43.046	717.9	0.3608	43.889	709.7	0.3675
17	40.880	733.6	0.3338	42.340	722.2	0.3445	43.225	717.8	0.3516
18	39.859	730.7	0.3189	41.334	724.0	0.3298	42.250	723.9	0.3371
19	38.567	724.1	0.3061	40.028	722.3	0.3168	40.953	725.7	0.3242
20	36.728	713.0	0.2952	38.134	715.6	0.3056	39.042	722.4	0.3130
21	33.578	697.4	0.2855	34.882	703.4	0.2958	35.741	712.8	0.3031
22	28.401	675.2	0.2772	29.528	682.6	0.2873	30.282	692.7	0.2946
23	21.505	644.9	0.2703	22.354	651.1	0.2801	22.925	658.9	0.2872
24	8.351	590.1	0.2625	8.644	591.8	0.2713	8.840	594.1	0.2777

Table 4-39. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D8

	Assembly Number D8					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.841	573.4	0.7396	7.964	571.5	0.7396
2	26.736	600.0	0.7396	27.073	593.4	0.7396
3	34.353	606.6	0.7396	34.731	597.7	0.7396
4	38.060	604.8	0.7271	38.448	595.8	0.7274
5	39.844	606.8	0.6933	40.241	596.6	0.6939
6	41.041	609.1	0.6556	41.454	598.0	0.6566
7	42.335	611.4	0.6174	42.766	599.6	0.6187
8	43.119	614.7	0.5785	43.577	602.0	0.5803
9	43.670	618.5	0.5418	44.161	604.9	0.5441
10	44.147	622.5	0.5090	44.672	607.9	0.5118
11	44.503	626.4	0.4799	45.064	611.2	0.4832
12	44.782	630.3	0.4539	45.378	614.3	0.4577
13	45.000	634.2	0.4302	45.631	617.5	0.4345
14	45.079	638.4	0.4089	45.746	620.8	0.4135
15	44.985	643.2	0.3896	45.690	624.2	0.3945
16	44.657	648.3	0.3721	45.403	628.0	0.3773
17	44.029	652.6	0.3563	44.819	632.0	0.3618
18	43.076	655.2	0.3419	43.904	635.5	0.3476
19	41.775	654.7	0.3289	42.623	637.4	0.3347
20	39.829	650.6	0.3174	40.669	636.6	0.3232
21	36.460	642.5	0.3073	37.257	632.7	0.3131
22	30.889	629.5	0.2987	31.580	622.9	0.3045
23	23.368	610.8	0.2912	23.880	606.8	0.2966
24	8.990	578.2	0.2811	9.162	576.7	0.2860

Table 4-40. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D9

	Assembly Number D9								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.069	617.5	0.7396	2.721	642.3	0.7396
2	0.000		0.7396	3.977	801.2	0.7396	9.877	903.6	0.7396
3	0.000		0.7396	5.608	923.4	0.7396	13.469	1053.3	0.7396
4	0.000		0.7357	6.670	1011.9	0.7396	15.237	1112.5	0.7281
5	0.000		0.6813	7.285	984.7	0.7036	15.928	1028.5	0.6810
6	0.000	Data Not	0.6264	7.599	1008.9	0.6537	16.141	1021.2	0.6286
7	0.000	Required	0.5750	7.720	1018.4	0.6032	16.145	1012.9	0.5770
8	0.000		0.5310	7.711	1017.7	0.5550	16.054	1007.0	0.5294
9	0.000		0.4940	7.639	1012.0	0.5118	15.948	1004.6	0.4870
10	0.000		0.4630	7.563	1006.1	0.4741	15.872	1004.6	0.4499
11	0.000		0.4366	7.534	1003.8	0.4412	15.843	1004.6	0.4174
12	0.000		0.4140	7.612	1009.9	0.4122	15.943	1006.2	0.3889
13	0.000		0.3941	7.777	1022.9	0.3862	16.172	1010.7	0.3634
14	0.000		0.3764	7.758	1021.4	0.3634	16.189	1013.3	0.3409
15	0.000		0.3604	7.626	1011.0	0.3435	16.095	1016.0	0.3211
16	0.000		0.3458	7.422	995.1	0.3263	15.899	1016.6	0.3035
17	0.000		0.3325	7.176	976.4	0.3113	15.628	1014.8	0.2882
18	0.000		0.3202	6.907	956.3	0.2983	15.278	1009.0	0.2744
19	0.000		0.3090	6.642	937.0	0.2870	14.807	994.5	0.2623
20	0.000		0.2988	6.328	914.7	0.2770	14.118	968.7	0.2517
21	0.000		0.2903	5.756	875.4	0.2683	12.905	926.2	0.2423
22	0.000		0.2837	4.869	817.9	0.2611	10.989	862.1	0.2345
23	0.000		0.2788	3.648	745.2	0.2555	8.326	780.0	0.2282
24	0.000		0.2761	1.524	633.4	0.2520	3.559	649.4	0.2244

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.824	634.2	0.7396	5.606	631.0	0.7396	6.433	630.3	0.7396
2	14.063	888.6	0.7396	20.159	835.9	0.7396	22.758	807.4	0.7396
3	18.998	1025.2	0.7396	26.521	915.4	0.7396	29.716	875.9	0.7396
4	21.488	1017.8	0.7200	29.515	883.5	0.7175	33.074	862.8	0.7180
5	22.534	1053.0	0.6727	30.698	890.3	0.6734	34.488	887.1	0.6758
6	22.898	1068.3	0.6197	31.115	892.9	0.6242	35.117	910.0	0.6285
7	22.935	1071.7	0.5675	31.230	896.9	0.5760	35.350	923.0	0.5815
8	22.809	1068.1	0.5195	31.244	904.0	0.5319	35.430	930.3	0.5378
9	22.610	1058.6	0.4774	31.228	913.3	0.4931	35.460	935.5	0.4988
10	22.374	1042.5	0.4410	31.163	922.1	0.4591	35.416	937.9	0.4643
11	22.140	1022.3	0.4096	31.077	929.9	0.4291	35.327	937.5	0.4340
12	21.993	998.5	0.3822	31.034	935.3	0.4024	35.257	934.5	0.4069
13	21.954	973.3	0.3580	31.053	938.4	0.3784	35.236	930.0	0.3826
14	21.713	949.7	0.3367	30.849	940.3	0.3571	34.989	925.2	0.3611
15	21.354	926.1	0.3180	30.484	940.0	0.3382	34.569	919.1	0.3419
16	20.873	901.4	0.3016	29.933	936.3	0.3213	33.942	910.7	0.3249
17	20.304	876.3	0.2870	29.216	928.6	0.3063	33.117	899.0	0.3097
18	19.691	854.8	0.2741	28.390	917.5	0.2927	32.144	883.3	0.2960
19	18.985	836.0	0.2626	27.386	902.2	0.2805	30.940	862.3	0.2837
20	18.031	815.4	0.2525	25.986	879.9	0.2695	29.268	834.7	0.2726
21	16.425	785.7	0.2436	23.661	845.1	0.2600	26.579	799.2	0.2630
22	13.925	743.7	0.2362	20.044	794.0	0.2519	22.475	754.0	0.2550
23	10.557	696.0	0.2304	15.222	732.0	0.2457	17.075	703.8	0.2488
24	4.352	607.2	0.2264	6.016	618.6	0.2402	6.701	611.6	0.2433

Table 4-40. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D9

	Assembly Number D9								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.894	604.8	0.7396	6.918	587.4	0.7396	7.218	594.0	0.7396
2	24.227	715.0	0.7396	24.298	646.1	0.7396	25.172	665.5	0.7396
3	31.588	763.3	0.7396	31.675	667.0	0.7396	32.690	684.0	0.7396
4	35.231	762.5	0.7196	35.326	661.7	0.7197	36.391	672.5	0.7208
5	36.875	787.4	0.6793	36.977	669.6	0.6796	38.080	676.7	0.6817
6	37.834	824.6	0.6343	37.944	678.6	0.6347	39.088	681.3	0.6381
7	38.235	844.2	0.5890	38.355	690.2	0.5895	39.560	688.2	0.5944
8	38.429	857.8	0.5463	38.560	703.1	0.5469	39.836	696.4	0.5533
9	38.548	868.6	0.5076	38.690	716.2	0.5084	40.037	704.6	0.5161
10	38.594	879.6	0.4732	38.747	729.5	0.4742	40.156	711.8	0.4830
11	38.582	889.2	0.4426	38.742	738.2	0.4437	40.204	718.1	0.4533
12	38.528	891.2	0.4151	38.693	744.4	0.4163	40.195	722.8	0.4264
13	38.528	893.8	0.3904	38.695	746.9	0.3916	40.220	725.6	0.4020
14	38.347	902.1	0.3688	38.513	745.6	0.3700	40.049	726.9	0.3805
15	38.178	934.6	0.3503	38.341	741.9	0.3514	39.866	725.6	0.3617
16	37.594	940.3	0.3329	37.752	735.7	0.3340	39.264	724.0	0.3441
17	36.688	929.6	0.3170	36.841	729.5	0.3180	38.329	721.2	0.3280
18	35.579	912.0	0.3026	35.725	721.0	0.3036	37.173	716.4	0.3135
19	34.184	887.8	0.2897	34.322	711.4	0.2907	35.707	709.0	0.3002
20	32.256	856.5	0.2782	32.384	699.5	0.2791	33.680	698.7	0.2884
21	29.229	816.9	0.2682	29.343	683.2	0.2691	30.516	684.6	0.2782
22	24.680	767.6	0.2600	24.776	662.8	0.2608	25.770	664.6	0.2698
23	18.743	712.2	0.2536	18.814	635.4	0.2544	19.555	637.3	0.2632
24	7.322	614.8	0.2479	7.346	586.2	0.2487	7.601	587.2	0.2564

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.462	585.2	0.7396	7.643	580.5	0.7396	7.734	576.4	0.7396
2	25.865	635.5	0.7396	26.373	620.8	0.7396	26.624	607.7	0.7396
3	33.484	647.3	0.7396	34.061	629.5	0.7396	34.343	614.0	0.7396
4	37.221	639.9	0.7215	37.820	623.9	0.7221	38.107	609.4	0.7224
5	38.944	643.3	0.6833	39.566	626.4	0.6844	39.862	610.9	0.6850
6	39.994	647.4	0.6407	40.647	629.7	0.6426	40.957	613.3	0.6434
7	40.528	653.6	0.5981	41.228	634.8	0.6008	41.562	617.4	0.6020
8	40.877	660.9	0.5583	41.634	641.0	0.5618	41.999	622.7	0.5635
9	41.155	668.8	0.5224	41.976	648.0	0.5269	42.379	629.2	0.5290
10	41.348	676.4	0.4905	42.235	655.3	0.4960	42.678	636.2	0.4986
11	41.466	683.6	0.4620	42.419	662.7	0.4684	42.904	643.6	0.4716
12	41.521	690.4	0.4361	42.541	670.3	0.4435	43.068	651.0	0.4473
13	41.602	696.3	0.4125	42.684	677.4	0.4208	43.256	659.1	0.4251
14	41.484	701.9	0.3916	42.624	684.1	0.4006	43.241	667.3	0.4056
15	41.344	706.5	0.3732	42.530	689.5	0.3829	43.191	675.3	0.3883
16	40.785	711.2	0.3561	42.018	695.0	0.3663	42.723	683.5	0.3723
17	39.882	714.7	0.3404	41.154	699.6	0.3510	41.903	691.7	0.3576
18	38.734	715.5	0.3259	40.030	702.4	0.3369	40.813	698.2	0.3440
19	37.243	712.8	0.3127	38.541	702.7	0.3239	39.345	702.2	0.3313
20	35.154	706.1	0.3007	36.422	699.1	0.3120	37.227	702.4	0.3197
21	31.880	694.4	0.2904	33.076	690.6	0.3019	33.853	697.0	0.3098
22	26.946	674.7	0.2820	27.997	673.9	0.2936	28.692	681.6	0.3017
23	20.439	645.2	0.2750	21.238	645.6	0.2863	21.773	652.5	0.2943
24	7.900	589.3	0.2668	8.170	589.4	0.2768	8.349	591.3	0.2838

Table 4-40. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D9

	Assembly Number D9					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.878	577.3	0.7396	8.129	584.5	0.7396
2	27.035	612.3	0.7396	27.728	631.4	0.7396
3	34.830	622.6	0.7396	35.623	642.4	0.7396
4	38.635	620.4	0.7228	39.462	635.4	0.7235
5	40.428	624.8	0.6860	41.282	637.9	0.6874
6	41.563	629.4	0.6451	42.447	640.7	0.6474
7	42.214	634.7	0.6044	43.139	644.6	0.6076
8	42.702	640.7	0.5666	43.676	649.2	0.5707
9	43.134	646.8	0.5330	44.159	654.0	0.5380
10	43.482	652.6	0.5033	44.558	658.9	0.5092
11	43.754	658.1	0.4771	44.876	663.3	0.4837
12	43.962	663.4	0.4534	45.126	667.3	0.4608
13	44.194	668.7	0.4319	45.394	670.8	0.4399
14	44.235	675.6	0.4132	45.469	674.1	0.4216
15	44.254	684.1	0.3966	45.520	677.3	0.4054
16	43.873	695.0	0.3814	45.187	682.0	0.3906
17	43.128	704.5	0.3673	44.496	687.3	0.3770
18	42.077	709.5	0.3541	43.480	690.8	0.3642
19	40.599	708.2	0.3414	41.998	690.4	0.3516
20	38.420	700.4	0.3296	39.766	685.2	0.3398
21	34.928	685.6	0.3193	36.166	674.5	0.3294
22	29.580	662.7	0.3106	30.624	655.8	0.3204
23	22.406	632.5	0.3027	23.164	629.1	0.3119
24	8.555	584.4	0.2910	8.807	583.8	0.2992

Table 4-41. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D10

	Assembly Number D10								
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.067	617.4	0.7396	2.743	643.6	0.7396
2	0.000		0.7396	3.949	799.2	0.7396	9.941	910.1	0.7396
3	0.000		0.7396	5.598	922.6	0.7396	13.608	1065.5	0.7396
4	0.000		0.7396	6.703	1014.7	0.7396	15.430	1126.3	0.7251
5	0.000		0.6961	7.378	991.8	0.7010	16.175	1039.7	0.6766
6	0.000	Data Not	0.6427	7.758	1021.4	0.6500	16.433	1030.8	0.6231
7	0.000	Required	0.5931	7.914	1033.8	0.5986	16.469	1022.2	0.5711
8	0.000		0.5487	7.904	1033.0	0.5503	16.400	1017.9	0.5233
9	0.000		0.5109	7.807	1025.2	0.5074	16.323	1019.4	0.4811
10	0.000		0.4788	7.690	1016.0	0.4701	16.292	1025.5	0.4441
11	0.000		0.4514	7.615	1010.1	0.4381	16.252	1028.1	0.4119
12	0.000		0.4276	7.657	1013.4	0.4103	16.304	1028.8	0.3840
13	0.000		0.4066	7.814	1025.8	0.3855	16.465	1029.1	0.3594
14	0.000		0.3878	7.777	1022.9	0.3631	16.454	1031.0	0.3371
15	0.000		0.3709	7.620	1010.5	0.3432	16.338	1033.9	0.3173
16	0.000		0.3555	7.397	993.2	0.3259	16.144	1036.1	0.2998
17	0.000		0.3412	7.131	973.0	0.3109	15.860	1034.7	0.2843
18	0.000		0.3279	6.829	950.6	0.2980	15.463	1027.9	0.2706
19	0.000		0.3153	6.471	924.8	0.2867	14.891	1012.5	0.2585
20	0.000		0.3037	5.994	891.5	0.2771	14.016	984.6	0.2479
21	0.000		0.2938	5.337	847.7	0.2688	12.665	937.9	0.2388
22	0.000		0.2862	4.413	789.9	0.2620	10.604	866.4	0.2311
23	0.000		0.2807	3.285	724.8	0.2568	7.948	779.2	0.2250
24	0.000		0.2776	1.386	626.7	0.2535	3.416	649.2	0.2213

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.829	633.0	0.7396	5.557	628.7	0.7396	6.040	599.9	0.7396
2	14.056	881.9	0.7396	19.946	825.0	0.7396	21.523	700.9	0.7396
3	19.021	1012.7	0.7396	26.261	899.1	0.7396	28.229	740.1	0.7396
4	21.535	1003.7	0.7189	29.254	868.3	0.7177	31.435	731.9	0.7200
5	22.622	1037.1	0.6711	30.488	875.5	0.6737	32.806	743.9	0.6788
6	23.023	1051.4	0.6178	30.973	879.7	0.6247	33.393	753.1	0.6326
7	23.087	1054.2	0.5656	31.153	885.4	0.5767	33.660	760.9	0.5871
8	22.977	1050.1	0.5177	31.217	894.1	0.5328	33.810	768.8	0.5452
9	22.805	1040.5	0.4757	31.249	904.4	0.4940	33.924	776.3	0.5079
10	22.617	1025.0	0.4392	31.249	914.0	0.4599	33.991	782.6	0.4747
11	22.381	1006.0	0.4079	31.174	922.3	0.4300	33.965	787.1	0.4451
12	22.201	984.0	0.3807	31.110	928.4	0.4035	33.944	791.2	0.4186
13	22.120	961.6	0.3571	31.102	932.2	0.3797	34.041	801.2	0.3949
14	21.892	941.9	0.3357	30.934	935.4	0.3582	34.220	835.1	0.3744
15	21.564	923.2	0.3168	30.627	936.5	0.3391	34.352	880.2	0.3560
16	21.142	903.4	0.3002	30.166	934.4	0.3218	34.333	928.2	0.3393
17	20.603	881.9	0.2853	29.509	928.2	0.3065	33.961	960.6	0.3237
18	19.969	862.3	0.2723	28.693	918.8	0.2928	33.236	971.3	0.3090
19	19.176	844.5	0.2607	27.634	905.1	0.2805	32.041	955.4	0.2953
20	18.042	824.1	0.2505	26.085	884.3	0.2696	30.186	920.9	0.2830
21	16.301	794.4	0.2417	23.654	850.7	0.2602	27.311	873.0	0.2724
22	13.643	751.0	0.2344	19.898	800.0	0.2524	22.957	812.7	0.2638
23	10.237	699.8	0.2287	15.003	736.2	0.2462	17.328	744.6	0.2573
24	4.230	608.4	0.2246	5.934	620.0	0.2404	6.776	623.4	0.2506

Table 4-41. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D10

	Assembly Number D10								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.490	603.7	0.7396	6.506	577.9	0.7396	6.897	604.9	0.7396
2	22.987	714.4	0.7396	23.042	625.6	0.7396	24.229	707.2	0.7396
3	30.145	768.8	0.7396	30.230	664.4	0.7396	31.667	742.1	0.7396
4	33.774	782.1	0.7217	33.912	711.4	0.7219	35.488	731.7	0.7233
5	35.392	809.6	0.6824	35.562	750.7	0.6827	37.216	741.2	0.6856
6	36.190	833.9	0.6381	36.375	769.8	0.6386	38.082	747.7	0.6430
7	36.553	845.1	0.5938	36.749	784.2	0.5946	38.513	754.8	0.6003
8	36.758	851.7	0.5526	36.961	793.5	0.5534	38.784	762.2	0.5603
9	36.904	855.5	0.5155	37.113	801.5	0.5164	38.992	769.2	0.5241
10	37.001	859.1	0.4823	37.213	805.6	0.4832	39.135	774.7	0.4915
11	37.043	867.3	0.4527	37.256	806.9	0.4537	39.202	777.8	0.4621
12	37.078	874.2	0.4259	37.289	804.2	0.4269	39.239	778.3	0.4352
13	37.291	888.5	0.4020	37.496	796.1	0.4030	39.427	775.9	0.4111
14	37.526	895.6	0.3810	37.724	786.8	0.3819	39.619	771.3	0.3896
15	37.773	910.2	0.3623	37.963	776.3	0.3631	39.805	764.6	0.3704
16	37.807	917.0	0.3452	37.987	763.4	0.3459	39.770	757.1	0.3528
17	37.462	920.5	0.3291	37.632	750.7	0.3298	39.346	748.6	0.3364
18	36.687	914.0	0.3142	36.848	739.4	0.3148	38.485	739.1	0.3211
19	35.451	908.8	0.3005	35.601	725.9	0.3011	37.145	727.9	0.3073
20	33.406	884.8	0.2879	33.543	710.2	0.2886	34.970	714.0	0.2945
21	30.208	845.6	0.2771	30.329	691.3	0.2777	31.604	696.3	0.2836
22	25.399	793.5	0.2683	25.500	668.4	0.2688	26.564	672.4	0.2747
23	19.198	732.5	0.2616	19.273	639.7	0.2621	20.063	642.5	0.2679
24	7.481	622.1	0.2549	7.507	588.2	0.2554	7.786	589.7	0.2607

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.257	597.9	0.7396	7.512	589.4	0.7396	7.636	582.7	0.7396
2	25.286	678.8	0.7396	26.019	649.7	0.7396	26.369	627.8	0.7396
3	32.907	701.4	0.7396	33.753	664.6	0.7396	34.152	637.9	0.7396
4	36.794	688.2	0.7244	37.677	654.9	0.7251	38.089	630.8	0.7255
5	38.579	694.3	0.6879	39.498	658.9	0.6895	39.923	633.1	0.6902
6	39.516	701.8	0.6469	40.483	664.3	0.6494	40.932	637.2	0.6505
7	40.035	711.3	0.6058	41.068	671.8	0.6095	41.554	643.8	0.6111
8	40.399	721.4	0.5673	41.512	681.0	0.5721	42.044	651.9	0.5744
9	40.696	731.3	0.5323	41.896	691.1	0.5383	42.482	661.6	0.5413
10	40.912	739.4	0.5006	42.194	700.8	0.5077	42.838	672.2	0.5113
11	41.034	745.7	0.4718	42.391	709.7	0.4798	43.092	682.7	0.4842
12	41.109	750.0	0.4453	42.532	717.7	0.4540	43.290	693.4	0.4590
13	41.313	751.8	0.4211	42.788	724.0	0.4302	43.597	703.1	0.4358
14	41.505	751.8	0.3994	43.020	728.9	0.4088	43.875	712.0	0.4147
15	41.676	750.1	0.3798	43.216	732.0	0.3892	44.111	719.8	0.3954
16	41.617	747.4	0.3618	43.175	734.3	0.3711	44.105	726.7	0.3775
17	41.161	743.7	0.3452	42.727	735.3	0.3544	43.689	733.1	0.3609
18	40.256	738.8	0.3297	41.815	734.4	0.3388	42.798	737.3	0.3454
19	38.847	731.0	0.3156	40.375	730.5	0.3246	41.359	737.5	0.3312
20	36.573	720.1	0.3028	38.040	723.0	0.3116	39.003	733.3	0.3182
21	33.056	703.7	0.2917	34.413	709.7	0.3005	35.320	722.2	0.3071
22	27.790	679.9	0.2827	28.955	687.0	0.2915	29.745	699.5	0.2981
23	20.976	648.1	0.2757	21.848	653.7	0.2842	22.443	663.3	0.2907
24	8.105	591.2	0.2679	8.408	592.8	0.2756	8.613	595.6	0.2814

Table 4-41. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly D10

	Assembly Number D10					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.728	570.7	0.7396	7.871	573.5	0.7396
2	26.631	592.6	0.7396	27.025	599.4	0.7396
3	34.456	598.1	0.7396	34.900	604.6	0.7396
4	38.412	597.3	0.7257	38.867	601.7	0.7260
5	40.266	599.6	0.6907	40.732	602.7	0.6914
6	41.301	602.5	0.6514	41.784	604.2	0.6526
7	41.953	605.8	0.6125	42.460	606.3	0.6141
8	42.477	609.6	0.5762	43.014	609.0	0.5784
9	42.951	613.7	0.5436	43.521	612.0	0.5463
10	43.343	617.8	0.5141	43.947	615.0	0.5173
11	43.631	621.7	0.4874	44.270	618.2	0.4911
12	43.862	625.5	0.4627	44.533	621.1	0.4667
13	44.197	628.7	0.4397	44.896	623.7	0.4441
14	44.501	631.7	0.4189	45.226	626.0	0.4234
15	44.763	634.7	0.3997	45.512	628.2	0.4043
16	44.784	637.8	0.3819	45.557	630.5	0.3867
17	44.391	640.5	0.3653	45.189	632.8	0.3702
18	43.513	642.1	0.3499	44.330	634.5	0.3548
19	42.070	641.6	0.3356	42.891	634.9	0.3406
20	39.689	638.7	0.3226	40.490	633.0	0.3277
21	35.950	632.1	0.3114	36.699	628.2	0.3165
22	30.275	620.6	0.3023	30.914	618.2	0.3073
23	22.826	604.0	0.2946	23.294	602.9	0.2993
24	8.739	575.5	0.2848	8.895	575.3	0.2891

Table 4-42. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E1

	Assembly Number E1								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.059	631.5	0.7396	3.128	643.7	0.7396
2	0.000		0.7396	4.052	878.1	0.7396	11.770	929.3	0.7396
3	0.000		0.7317	5.772	975.4	0.7314	15.911	998.4	0.7266
4	0.000		0.6609	6.865	1083.4	0.6890	17.835	1046.8	0.6808
5	0.000		0.5880	7.408	1141.8	0.6305	18.418	1049.2	0.6229
6	0.000	Data Not	0.5245	7.647	1168.5	0.5673	18.506	1040.2	0.5649
7	0.000	Required	0.4739	7.727	1177.5	0.5082	18.481	1034.0	0.5136
8	0.000		0.4336	7.701	1174.6	0.4575	18.448	1033.6	0.4701
9	0.000		0.4004	7.793	1185.1	0.4148	18.866	1053.0	0.4331
10	0.000		0.3727	7.562	1158.9	0.3789	18.740	1059.4	0.4011
11	0.000		0.3498	7.273	1127.0	0.3492	18.557	1065.8	0.3736
12	0.000		0.3306	6.950	1092.4	0.3246	18.320	1071.1	0.3498
13	0.000		0.3144	6.614	1057.5	0.3040	18.038	1074.4	0.3291
14	0.000		0.3007	6.271	1023.2	0.2867	17.702	1074.8	0.3109
15	0.000		0.2889	5.916	988.9	0.2720	17.286	1071.1	0.2948
16	0.000		0.2789	5.522	952.3	0.2593	16.728	1061.1	0.2805
17	0.000		0.2705	4.958	902.4	0.2486	15.798	1039.1	0.2683
18	0.000		0.2635	4.626	874.3	0.2396	15.097	1017.5	0.2569
19	0.000		0.2574	4.361	852.6	0.2316	14.380	991.6	0.2463
20	0.000		0.2520	4.070	829.3	0.2245	13.350	950.8	0.2366
21	0.000		0.2474	3.612	794.1	0.2183	11.872	897.4	0.2286
22	0.000		0.2437	3.050	753.0	0.2132	9.936	830.5	0.2219
23	0.000		0.2413	1.288	637.0	0.2098	4.301	668.1	0.2177
24	0.000		0.2400	0.788	607.2	0.2084	2.540	622.1	0.2152

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	4.094	643.5	0.7396	4.948	646.6	0.7396	5.003	626.0	0.7396
2	15.143	899.6	0.7396	18.056	904.1	0.7396	18.245	816.0	0.7396
3	20.249	950.3	0.7278	24.021	959.2	0.7284	24.274	865.2	0.7286
4	22.642	1006.0	0.6842	26.825	1017.0	0.6859	27.123	934.1	0.6862
5	23.410	1029.0	0.6284	27.746	1039.4	0.6313	28.072	979.8	0.6318
6	23.536	1033.8	0.5716	27.885	1041.3	0.5749	28.225	1003.6	0.5755
7	23.489	1031.0	0.5201	27.790	1034.2	0.5232	28.137	1015.7	0.5239
8	23.433	1028.1	0.4759	27.682	1026.6	0.4786	28.031	1019.2	0.4792
9	23.941	1039.5	0.4380	28.229	1032.3	0.4404	28.585	1031.5	0.4410
10	23.785	1035.7	0.4054	28.021	1024.7	0.4074	28.374	1026.2	0.4080
11	23.552	1029.4	0.3773	27.736	1017.1	0.3791	28.083	1015.7	0.3796
12	23.254	1021.7	0.3530	27.391	1010.3	0.3546	27.730	1001.9	0.3550
13	22.906	1013.5	0.3319	27.003	1004.6	0.3333	27.331	983.2	0.3336
14	22.496	1004.5	0.3133	26.558	999.6	0.3146	26.875	964.9	0.3149
15	21.991	993.6	0.2969	26.010	993.5	0.2980	26.314	943.7	0.2983
16	21.320	980.1	0.2824	25.270	983.8	0.2834	25.560	921.4	0.2837
17	20.248	963.3	0.2699	24.099	970.0	0.2707	24.374	898.2	0.2710
18	19.351	940.7	0.2583	23.045	948.6	0.2590	23.302	871.1	0.2593
19	18.379	912.1	0.2477	21.857	920.0	0.2484	22.092	839.2	0.2487
20	16.930	867.1	0.2381	20.047	874.3	0.2389	20.251	796.3	0.2391
21	15.001	821.3	0.2302	17.726	827.3	0.2310	17.899	755.7	0.2313
22	12.510	768.3	0.2237	14.748	772.5	0.2245	14.884	709.9	0.2247
23	5.467	648.7	0.2196	6.491	651.3	0.2204	6.551	624.0	0.2207
24	3.201	610.1	0.2171	3.784	611.7	0.2181	3.817	595.6	0.2183

Table 4-42. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E1

	Assembly Number E1								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.712	644.8	0.7396	6.391	634.3	0.7396	6.923	624.2	0.7396
2	20.534	874.4	0.7396	22.647	819.9	0.7396	24.250	773.3	0.7396
3	27.131	906.8	0.7295	29.736	840.7	0.7307	31.697	787.5	0.7317
4	30.224	944.6	0.6884	33.075	873.1	0.6912	35.212	811.5	0.6937
5	31.277	961.2	0.6354	34.291	895.3	0.6403	36.542	827.4	0.6446
6	31.470	967.7	0.5802	34.603	911.9	0.5868	36.949	840.9	0.5929
7	31.396	969.9	0.5291	34.620	924.8	0.5368	37.055	853.8	0.5443
8	31.305	972.4	0.4845	34.599	934.8	0.4926	37.123	866.8	0.5009
9	31.928	983.7	0.4459	35.326	950.0	0.4539	37.974	885.4	0.4626
10	31.701	981.1	0.4125	35.109	951.5	0.4201	37.824	895.6	0.4290
11	31.367	974.0	0.3839	34.753	948.2	0.3910	37.510	902.1	0.3997
12	30.957	964.7	0.3591	34.302	942.2	0.3658	37.088	906.6	0.3742
13	30.492	954.1	0.3374	33.787	935.0	0.3438	36.592	909.5	0.3518
14	29.961	942.2	0.3185	33.202	927.2	0.3244	36.016	910.9	0.3322
15	29.317	929.2	0.3017	32.499	918.8	0.3074	35.308	910.1	0.3147
16	28.466	914.2	0.2870	31.581	909.4	0.2924	34.370	907.0	0.2993
17	27.167	897.1	0.2742	30.201	898.1	0.2794	32.953	901.3	0.2860
18	25.942	874.5	0.2623	28.847	880.4	0.2674	31.516	888.6	0.2737
19	24.533	846.0	0.2517	27.251	855.5	0.2565	29.783	868.0	0.2626
20	22.393	805.0	0.2421	24.808	816.6	0.2467	27.089	831.6	0.2524
21	19.722	763.4	0.2342	21.801	775.6	0.2387	23.795	792.0	0.2441
22	16.324	716.4	0.2275	17.978	726.8	0.2318	19.581	741.0	0.2371
23	7.189	626.8	0.2236	7.926	631.2	0.2279	8.649	637.7	0.2332
24	4.166	596.9	0.2211	4.566	599.0	0.2252	4.957	602.2	0.2302

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.198	612.9	0.7396	7.475	594.8	0.7396	7.740	586.1	0.7396
2	25.058	728.5	0.7396	25.867	668.1	0.7396	26.610	637.3	0.7396
3	32.665	735.3	0.7323	33.648	674.9	0.7331	34.510	639.1	0.7336
4	36.251	749.8	0.6953	37.326	686.3	0.6971	38.232	643.3	0.6984
5	37.634	760.7	0.6474	38.779	695.2	0.6505	39.723	646.9	0.6530
6	38.102	773.5	0.5969	39.314	703.7	0.6017	40.308	651.6	0.6054
7	38.279	788.7	0.5493	39.560	712.7	0.5557	40.617	657.6	0.5609
8	38.430	806.9	0.5069	39.779	721.6	0.5148	40.910	664.8	0.5213
9	39.386	830.4	0.4692	40.823	733.2	0.4782	42.054	674.5	0.4860
10	39.313	848.2	0.4359	40.810	741.3	0.4458	42.119	682.2	0.4550
11	39.064	863.4	0.4067	40.609	747.8	0.4172	41.989	689.3	0.4276
12	38.697	876.6	0.3811	40.282	753.3	0.3920	41.725	695.7	0.4035
13	38.250	888.5	0.3585	39.869	758.0	0.3696	41.369	701.4	0.3819
14	37.717	899.1	0.3386	39.369	762.5	0.3499	40.921	706.8	0.3627
15	37.047	908.6	0.3211	38.732	767.1	0.3322	40.335	712.0	0.3457
16	36.139	916.1	0.3054	37.853	771.2	0.3166	39.510	717.6	0.3305
17	34.741	920.9	0.2919	36.477	774.3	0.3033	38.190	723.5	0.3178
18	33.288	916.9	0.2794	35.011	772.5	0.2906	36.763	727.6	0.3055
19	31.496	902.1	0.2680	33.161	764.4	0.2789	34.921	728.4	0.2942
20	28.659	867.2	0.2576	30.178	744.3	0.2683	31.862	720.4	0.2837
21	25.188	826.1	0.2491	26.526	720.1	0.2594	28.083	707.3	0.2751
22	20.712	768.9	0.2418	21.784	686.0	0.2517	23.073	680.2	0.2671
23	9.162	649.1	0.2378	9.632	614.1	0.2474	10.198	611.9	0.2625
24	5.233	607.8	0.2346	5.474	588.4	0.2432	5.759	586.8	0.2566

Table 4-43. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E2

	Assembly Number E2								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.054	631.2	0.7396	2.876	633.1	0.7396
2	0.000		0.7396	4.023	875.4	0.7396	10.871	879.2	0.7396
3	0.000		0.7390	5.693	968.0	0.7332	14.765	939.7	0.7315
4	0.000		0.6774	6.706	1067.0	0.6936	16.598	984.5	0.6916
5	0.000		0.6089	7.155	1114.2	0.6384	17.156	990.6	0.6393
6	0.000	Data Not	0.5473	7.286	1128.4	0.5776	17.224	987.0	0.5849
7	0.000	Required	0.4968	7.265	1126.1	0.5201	17.173	985.3	0.5352
8	0.000		0.4559	7.172	1116.0	0.4706	17.125	987.9	0.4927
9	0.000		0.4219	7.232	1122.5	0.4289	17.516	1006.7	0.4562
10	0.000		0.3933	7.016	1099.3	0.3937	17.407	1012.8	0.4243
11	0.000		0.3696	6.759	1072.4	0.3644	17.247	1018.4	0.3966
12	0.000		0.3497	6.477	1043.7	0.3398	17.038	1022.7	0.3724
13	0.000		0.3327	6.192	1015.5	0.3190	16.798	1025.3	0.3510
14	0.000		0.3183	5.912	988.5	0.3014	16.528	1025.9	0.3320
15	0.000		0.3060	5.627	961.9	0.2862	16.199	1023.3	0.3151
16	0.000		0.2955	5.304	932.7	0.2730	15.744	1015.7	0.3001
17	0.000		0.2866	4.800	888.9	0.2619	14.910	996.7	0.2874
18	0.000		0.2791	4.504	864.2	0.2523	14.297	978.9	0.2754
19	0.000		0.2725	4.255	844.0	0.2439	13.659	957.5	0.2643
20	0.000		0.2668	3.974	821.8	0.2364	12.726	922.8	0.2542
21	0.000		0.2619	3.532	788.1	0.2299	11.356	875.6	0.2458
22	0.000		0.2579	2.989	748.6	0.2246	9.544	815.2	0.2387
23	0.000		0.2553	1.261	635.4	0.2210	4.125	662.5	0.2342
24	0.000		0.2541	0.769	606.1	0.2195	2.425	618.7	0.2314

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.861	645.2	0.7396	4.716	646.7	0.7396	4.773	628.5	0.7396
2	14.345	912.1	0.7396	17.278	907.0	0.7396	17.472	824.0	0.7396
3	19.215	963.3	0.7313	22.998	960.7	0.7312	23.247	859.4	0.7314
4	21.503	1018.1	0.6920	25.694	1018.1	0.6924	25.973	904.3	0.6926
5	22.243	1041.0	0.6403	26.596	1041.9	0.6410	26.895	935.7	0.6414
6	22.354	1046.5	0.5859	26.740	1046.9	0.5865	27.054	959.9	0.5872
7	22.290	1044.8	0.5355	26.655	1043.7	0.5357	26.980	978.1	0.5363
8	22.226	1042.8	0.4920	26.557	1038.7	0.4916	26.894	998.4	0.4923
9	22.719	1055.8	0.4544	27.109	1047.5	0.4536	27.460	1022.7	0.4541
10	22.589	1053.1	0.4218	26.946	1042.5	0.4205	27.302	1031.5	0.4211
11	22.395	1048.8	0.3935	26.720	1037.8	0.3920	27.073	1026.2	0.3924
12	22.145	1043.5	0.3688	26.440	1033.3	0.3670	26.788	1017.5	0.3674
13	21.860	1037.8	0.3471	26.134	1030.3	0.3451	26.474	1003.6	0.3455
14	21.538	1031.2	0.3278	25.801	1028.6	0.3258	26.132	988.2	0.3260
15	21.143	1023.0	0.3107	25.387	1025.9	0.3085	25.706	968.2	0.3088
16	20.590	1010.8	0.2956	24.788	1019.1	0.2933	25.095	948.5	0.2935
17	19.628	995.2	0.2825	23.739	1006.6	0.2799	24.033	927.7	0.2801
18	18.828	972.8	0.2704	22.787	985.0	0.2678	23.063	899.7	0.2680
19	17.938	943.5	0.2595	21.681	955.3	0.2569	21.933	863.8	0.2571
20	16.579	896.2	0.2498	19.951	906.3	0.2472	20.170	816.8	0.2474
21	14.748	847.7	0.2415	17.718	856.3	0.2391	17.903	771.2	0.2393
22	12.359	790.9	0.2347	14.821	797.2	0.2323	14.967	722.0	0.2325
23	5.400	657.3	0.2302	6.534	661.5	0.2278	6.598	628.2	0.2280
24	3.158	615.5	0.2277	3.813	618.0	0.2254	3.848	597.7	0.2256

Table 4-43. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E2

	Assembly Number E2								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.436	638.9	0.7396	6.170	640.8	0.7396	6.763	632.0	0.7396
2	19.636	854.0	0.7396	21.953	849.8	0.7396	23.765	805.6	0.7396
3	25.952	884.0	0.7321	28.829	876.6	0.7329	31.054	823.7	0.7333
4	28.933	922.5	0.6945	32.113	918.5	0.6964	34.544	853.2	0.6977
5	30.004	945.8	0.6448	33.392	948.5	0.6479	35.948	871.6	0.6503
6	30.266	962.3	0.5915	33.805	971.0	0.5957	36.440	883.4	0.5992
7	30.271	975.2	0.5413	33.912	986.4	0.5458	36.603	891.9	0.5502
8	30.252	986.2	0.4970	33.963	997.2	0.5013	36.705	899.8	0.5062
9	30.932	1005.3	0.4584	34.748	1013.6	0.4622	37.593	915.8	0.4676
10	30.784	1007.0	0.4248	34.597	1013.1	0.4281	37.530	929.7	0.4340
11	30.529	1002.6	0.3957	34.299	1006.4	0.3985	37.282	937.7	0.4045
12	30.195	994.4	0.3702	33.903	996.7	0.3727	36.968	951.0	0.3789
13	29.816	983.5	0.3479	33.452	985.7	0.3502	36.634	970.4	0.3566
14	29.399	971.2	0.3283	32.954	973.4	0.3303	36.274	993.7	0.3368
15	28.889	957.6	0.3109	32.357	960.3	0.3127	35.686	995.2	0.3187
16	28.182	942.3	0.2954	31.550	945.6	0.2971	34.819	985.0	0.3024
17	27.009	925.0	0.2820	30.262	928.9	0.2836	33.443	970.2	0.2883
18	25.879	900.6	0.2697	28.963	905.0	0.2713	32.000	946.5	0.2754
19	24.531	868.4	0.2588	27.382	873.1	0.2603	30.217	914.2	0.2640
20	22.436	821.7	0.2491	24.936	827.3	0.2505	27.449	865.2	0.2539
21	19.823	775.8	0.2409	21.953	781.7	0.2425	24.118	815.3	0.2455
22	16.481	725.3	0.2342	18.167	730.3	0.2357	19.897	757.2	0.2386
23	7.267	630.1	0.2297	8.022	633.0	0.2313	8.809	644.8	0.2343
24	4.215	598.7	0.2273	4.630	600.4	0.2289	5.063	606.6	0.2317

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.108	627.1	0.7396	7.409	597.9	0.7396	7.662	584.9	0.7396
2	24.780	778.0	0.7396	25.664	679.0	0.7396	26.376	633.9	0.7396
3	32.268	786.6	0.7338	33.357	688.1	0.7345	34.189	636.3	0.7350
4	35.837	803.8	0.6988	37.046	703.4	0.7006	37.923	640.5	0.7018
5	37.289	814.4	0.6523	38.584	714.5	0.6557	39.497	643.9	0.6580
6	37.827	824.7	0.6021	39.197	724.3	0.6072	40.160	648.7	0.6107
7	38.045	837.3	0.5539	39.484	733.5	0.5607	40.510	654.7	0.5654
8	38.210	851.9	0.5105	39.716	742.5	0.5187	40.817	661.9	0.5249
9	39.186	872.7	0.4722	40.779	754.4	0.4814	41.976	671.2	0.4888
10	39.183	887.3	0.4388	40.828	761.6	0.4485	42.100	678.6	0.4572
11	38.988	900.3	0.4094	40.672	767.0	0.4196	42.013	685.4	0.4294
12	38.740	916.9	0.3838	40.451	770.8	0.3942	41.851	691.3	0.4050
13	38.525	947.5	0.3617	40.251	772.9	0.3720	41.701	696.4	0.3835
14	38.226	963.6	0.3417	39.966	774.9	0.3518	41.463	701.1	0.3639
15	37.694	978.7	0.3234	39.453	777.6	0.3334	40.999	706.1	0.3460
16	36.942	1010.4	0.3072	38.714	779.4	0.3171	40.309	711.2	0.3303
17	35.601	1020.3	0.2928	37.381	780.6	0.3028	39.033	717.1	0.3166
18	34.120	1009.6	0.2795	35.878	777.4	0.2894	37.573	721.6	0.3038
19	32.242	983.3	0.2677	33.934	768.1	0.2775	35.653	724.1	0.2924
20	29.283	932.7	0.2572	30.822	747.0	0.2667	32.495	719.3	0.2824
21	25.727	876.6	0.2486	27.078	721.8	0.2578	28.655	709.3	0.2742
22	21.199	805.7	0.2414	22.279	687.0	0.2502	23.600	683.4	0.2664
23	9.412	665.3	0.2370	9.891	615.1	0.2457	10.477	613.7	0.2616
24	5.396	617.5	0.2343	5.644	589.2	0.2422	5.937	587.5	0.2561

Table 4-44. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E3

	Assembly Number E3								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.008	627.9	0.7396	2.992	640.0	0.7396
2	0.000		0.7396	3.848	859.0	0.7396	11.309	914.2	0.7396
3	0.000		0.7324	5.513	951.5	0.7338	15.427	985.7	0.7288
4	0.000		0.6623	6.608	1056.9	0.6945	17.419	1037.4	0.6854
5	0.000		0.5899	7.175	1116.4	0.6388	18.081	1043.0	0.6292
6	0.000	Data Not	0.5266	7.432	1144.4	0.5767	18.240	1037.2	0.5717
7	0.000	Required	0.4759	7.516	1153.8	0.5177	18.267	1033.8	0.5199
8	0.000		0.4356	7.484	1150.2	0.4667	18.262	1035.4	0.4758
9	0.000		0.4023	7.571	1159.9	0.4239	18.684	1055.4	0.4383
10	0.000		0.3745	7.346	1135.0	0.3880	18.559	1061.5	0.4061
11	0.000		0.3515	7.066	1104.7	0.3583	18.374	1067.3	0.3784
12	0.000		0.3322	6.753	1071.8	0.3336	18.136	1071.8	0.3545
13	0.000		0.3159	6.432	1039.2	0.3128	17.862	1074.7	0.3335
14	0.000		0.3021	6.115	1008.0	0.2953	17.553	1075.2	0.3150
15	0.000		0.2903	5.799	977.9	0.2803	17.181	1071.8	0.2986
16	0.000		0.2801	5.462	946.8	0.2675	16.685	1062.1	0.2841
17	0.000		0.2717	4.953	901.9	0.2566	15.819	1040.6	0.2716
18	0.000		0.2647	4.667	877.7	0.2473	15.191	1020.5	0.2599
19	0.000		0.2586	4.430	858.2	0.2390	14.535	996.5	0.2491
20	0.000		0.2531	4.153	835.9	0.2316	13.540	956.6	0.2394
21	0.000		0.2485	3.693	800.2	0.2251	12.063	903.0	0.2312
22	0.000		0.2447	3.126	758.4	0.2197	10.117	835.5	0.2244
23	0.000		0.2423	1.332	639.7	0.2159	4.400	670.2	0.2199
24	0.000		0.2410	0.813	608.7	0.2144	2.597	623.2	0.2174

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.789	628.0	0.7396	4.436	624.5	0.7396	4.501	638.8	0.7396
2	14.131	834.3	0.7396	16.336	807.0	0.7396	16.561	874.8	0.7396
3	18.994	865.8	0.7310	21.769	833.1	0.7324	22.062	926.1	0.7325
4	21.307	899.9	0.6909	24.341	864.1	0.6949	24.671	986.5	0.6950
5	22.101	914.4	0.6389	25.253	878.6	0.6459	25.602	1019.2	0.6460
6	22.313	920.3	0.5849	25.522	885.7	0.5943	25.876	1028.0	0.5945
7	22.362	922.8	0.5350	25.596	888.8	0.5461	25.950	1028.0	0.5463
8	22.374	924.7	0.4915	25.625	891.0	0.5033	25.977	1024.5	0.5033
9	22.902	936.6	0.4537	26.235	901.3	0.4655	26.593	1035.1	0.4655
10	22.779	936.8	0.4208	26.118	902.1	0.4324	26.472	1028.0	0.4324
11	22.580	935.2	0.3924	25.916	901.7	0.4036	26.263	1015.7	0.4035
12	22.316	932.3	0.3677	25.641	900.3	0.3785	25.979	1000.2	0.3784
13	22.008	928.5	0.3462	25.322	898.9	0.3564	25.649	981.5	0.3563
14	21.657	923.8	0.3270	24.956	897.0	0.3369	25.272	963.2	0.3369
15	21.231	917.7	0.3100	24.508	894.2	0.3196	24.814	946.9	0.3195
16	20.666	910.1	0.2950	23.909	890.0	0.3043	24.202	926.1	0.3042
17	19.714	900.7	0.2822	22.907	883.7	0.2911	23.188	907.4	0.2910
18	18.944	885.4	0.2701	22.039	871.5	0.2787	22.304	883.0	0.2786
19	18.083	863.8	0.2590	21.026	853.1	0.2672	21.271	853.6	0.2672
20	16.732	827.5	0.2487	19.396	820.2	0.2567	19.610	809.9	0.2567
21	14.869	790.0	0.2403	17.228	785.8	0.2481	17.411	768.6	0.2481
22	12.413	743.1	0.2333	14.354	741.0	0.2408	14.499	720.8	0.2409
23	5.396	635.5	0.2288	6.252	636.0	0.2364	6.316	628.2	0.2365
24	3.144	601.7	0.2259	3.615	602.0	0.2332	3.650	597.7	0.2332

Table 4-44. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E3

	Assembly Number E3								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.227	647.0	0.7396	5.924	636.4	0.7396	6.494	629.0	0.7396
2	18.948	890.8	0.7396	21.160	834.3	0.7396	22.912	796.2	0.7396
3	25.033	924.2	0.7329	27.772	858.2	0.7337	29.923	813.4	0.7345
4	27.873	960.7	0.6960	30.873	893.4	0.6981	33.216	840.5	0.7002
5	28.887	974.2	0.6478	32.052	916.4	0.6514	34.507	856.7	0.6549
6	29.185	978.1	0.5967	32.463	932.5	0.6014	35.000	868.8	0.6064
7	29.262	978.6	0.5484	32.620	944.1	0.5538	35.226	879.1	0.5596
8	29.297	979.9	0.5053	32.715	952.9	0.5106	35.392	889.8	0.5170
9	29.985	991.9	0.4672	33.505	968.1	0.4721	36.295	907.2	0.4787
10	29.856	990.5	0.4337	33.387	969.8	0.4383	36.232	915.8	0.4447
11	29.609	984.2	0.4047	33.111	965.4	0.4088	35.990	921.1	0.4150
12	29.270	975.2	0.3793	32.724	958.3	0.3831	35.621	924.0	0.3890
13	28.874	964.4	0.3571	32.268	949.4	0.3606	35.175	925.6	0.3661
14	28.425	952.8	0.3375	31.751	939.5	0.3407	34.658	925.6	0.3459
15	27.888	940.3	0.3201	31.141	928.9	0.3231	34.036	923.7	0.3279
16	27.188	926.5	0.3047	30.359	917.3	0.3075	33.226	919.2	0.3121
17	26.072	910.9	0.2915	29.148	903.9	0.2941	31.974	912.8	0.2984
18	25.045	889.4	0.2791	27.979	884.3	0.2816	30.717	899.1	0.2856
19	23.822	861.6	0.2678	26.559	858.0	0.2702	29.154	877.4	0.2739
20	21.861	819.7	0.2574	24.286	817.8	0.2597	26.622	839.5	0.2633
21	19.337	776.6	0.2488	21.425	776.7	0.2512	23.469	798.7	0.2547
22	16.030	727.3	0.2417	17.695	728.0	0.2441	19.344	746.8	0.2474
23	6.992	630.8	0.2374	7.733	631.6	0.2398	8.479	640.3	0.2432
24	4.022	599.3	0.2343	4.427	599.4	0.2367	4.834	603.9	0.2400

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.802	619.6	0.7396	7.076	594.4	0.7396	7.540	607.0	0.7396
2	23.831	754.7	0.7396	24.665	671.7	0.7396	26.015	707.3	0.7396
3	31.029	763.6	0.7352	32.075	682.7	0.7359	33.691	713.4	0.7367
4	34.399	779.9	0.7017	35.573	698.9	0.7035	37.304	725.4	0.7057
5	35.740	790.7	0.6575	37.018	712.3	0.6608	38.823	733.2	0.6648
6	36.284	801.8	0.6100	37.661	725.2	0.6151	39.528	739.8	0.6208
7	36.572	815.5	0.5641	38.045	738.1	0.5710	39.971	746.2	0.5783
8	36.812	832.2	0.5221	38.379	750.8	0.5305	40.365	752.7	0.5391
9	37.819	856.3	0.4842	39.494	765.8	0.4937	41.568	762.4	0.5031
10	37.830	873.9	0.4504	39.567	774.5	0.4605	41.687	767.5	0.4706
11	37.650	889.0	0.4206	39.429	780.4	0.4312	41.580	771.0	0.4415
12	37.336	902.6	0.3945	39.142	784.3	0.4051	41.312	773.1	0.4155
13	36.938	914.6	0.3714	38.766	787.4	0.3820	40.946	774.2	0.3923
14	36.463	925.2	0.3509	38.321	791.7	0.3614	40.506	774.8	0.3716
15	35.876	934.2	0.3328	37.781	798.6	0.3432	39.975	775.8	0.3532
16	35.091	940.7	0.3166	37.054	807.1	0.3270	39.267	777.9	0.3369
17	33.850	943.6	0.3027	35.856	813.4	0.3131	38.093	780.7	0.3230
18	32.570	937.6	0.2896	34.561	811.2	0.2998	36.786	779.3	0.3097
19	30.940	920.4	0.2777	32.847	798.9	0.2875	34.999	771.1	0.2971
20	28.256	882.6	0.2669	29.971	771.4	0.2761	31.943	751.2	0.2855
21	24.917	838.7	0.2581	26.400	739.4	0.2668	28.143	726.6	0.2761
22	20.524	779.3	0.2506	21.694	698.4	0.2588	23.095	691.4	0.2677
23	9.018	653.7	0.2464	9.529	618.8	0.2545	10.154	617.3	0.2633
24	5.128	610.9	0.2431	5.391	590.8	0.2504	5.715	590.3	0.2586

Table 4-45. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E4

	Assembly Number E4								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.873	618.3	0.7396	2.808	637.9	0.7396
2	0.000		0.7396	3.332	812.3	0.7396	10.648	905.8	0.7396
3	0.000		0.7396	4.789	950.5	0.7396	14.645	1063.9	0.7321
4	0.000		0.6893	5.818	979.7	0.7091	16.671	1039.9	0.6932
5	0.000		0.6237	6.458	1041.8	0.6630	17.409	1045.7	0.6419
6	0.000	Data Not	0.5626	6.881	1085.1	0.6088	17.643	1034.5	0.5882
7	0.000	Required	0.5110	7.147	1113.3	0.5531	17.727	1023.8	0.5380
8	0.000		0.4686	7.261	1125.7	0.5007	17.764	1019.3	0.4933
9	0.000		0.4329	7.422	1143.3	0.4542	18.194	1035.1	0.4542
10	0.000		0.4028	7.228	1122.1	0.4145	18.066	1039.0	0.4201
11	0.000		0.3777	6.964	1093.8	0.3816	17.875	1043.3	0.3908
12	0.000		0.3567	6.669	1063.2	0.3542	17.638	1046.8	0.3655
13	0.000		0.3390	6.362	1032.2	0.3312	17.361	1048.6	0.3436
14	0.000		0.3239	6.042	1000.9	0.3119	17.028	1047.8	0.3243
15	0.000		0.3110	5.695	968.2	0.2955	16.603	1043.1	0.3073
16	0.000		0.3000	5.296	931.9	0.2815	16.019	1032.2	0.2924
17	0.000		0.2909	4.721	882.2	0.2699	15.045	1009.0	0.2796
18	0.000		0.2833	4.390	854.9	0.2600	14.331	987.2	0.2679
19	0.000		0.2767	4.144	835.2	0.2514	13.647	962.9	0.2571
20	0.000		0.2709	3.885	814.9	0.2437	12.704	926.3	0.2474
21	0.000		0.2660	3.457	782.5	0.2371	11.302	876.7	0.2392
22	0.000		0.2619	2.923	744.0	0.2316	9.452	814.0	0.2325
23	0.000		0.2594	1.237	633.9	0.2280	4.080	661.7	0.2281
24	0.000		0.2581	0.749	604.9	0.2264	2.394	618.3	0.2257

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.846	650.1	0.7396	4.714	648.1	0.7396	4.774	632.4	0.7396
2	14.307	935.3	0.7396	17.201	901.4	0.7396	17.401	833.6	0.7396
3	19.198	975.4	0.7314	22.774	932.9	0.7317	23.032	872.6	0.7317
4	21.508	1009.7	0.6928	25.341	967.5	0.6939	25.630	919.8	0.6941
5	22.264	1011.9	0.6424	26.176	978.5	0.6444	26.484	950.1	0.6448
6	22.423	1002.7	0.5892	26.341	979.3	0.5921	26.659	966.5	0.5926
7	22.427	993.0	0.5392	26.324	976.4	0.5425	26.647	974.8	0.5430
8	22.422	988.0	0.4948	26.306	974.6	0.4981	26.633	981.5	0.4986
9	22.945	999.2	0.4558	26.908	985.6	0.4590	27.244	996.7	0.4595
10	22.822	999.8	0.4217	26.792	986.6	0.4248	27.126	993.3	0.4253
11	22.638	1000.7	0.3924	26.610	986.9	0.3954	26.940	986.5	0.3957
12	22.409	1001.6	0.3670	26.390	988.1	0.3697	26.712	973.1	0.3701
13	22.143	1003.0	0.3447	26.140	990.4	0.3473	26.454	959.9	0.3476
14	21.820	1004.2	0.3252	25.838	993.3	0.3275	26.142	943.7	0.3278
15	21.391	1003.7	0.3080	25.430	996.3	0.3099	25.725	929.3	0.3103
16	20.776	999.9	0.2927	24.821	997.2	0.2945	25.109	918.3	0.2948
17	19.739	992.3	0.2795	23.770	995.2	0.2809	24.051	907.4	0.2812
18	18.891	976.3	0.2675	22.844	984.2	0.2685	23.115	892.1	0.2688
19	17.996	951.6	0.2565	21.797	963.2	0.2574	22.052	868.2	0.2576
20	16.651	906.4	0.2467	20.128	919.9	0.2474	20.353	825.1	0.2477
21	14.796	858.2	0.2385	17.901	872.8	0.2391	18.093	780.4	0.2393
22	12.336	797.5	0.2318	14.923	811.4	0.2322	15.075	729.4	0.2325
23	5.345	656.5	0.2275	6.520	665.3	0.2278	6.589	633.6	0.2281
24	3.111	614.3	0.2252	3.784	619.6	0.2255	3.821	599.7	0.2258

Table 4-45. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E4

	Assembly Number E4								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.408	635.3	0.7396	6.084	634.0	0.7396	6.722	637.8	0.7396
2	19.452	835.9	0.7396	21.591	823.7	0.7396	23.556	830.1	0.7396
3	25.615	866.2	0.7327	28.324	854.3	0.7336	30.781	857.0	0.7341
4	28.477	905.3	0.6963	31.517	898.9	0.6984	34.225	894.5	0.6999
5	29.475	927.3	0.6485	32.731	929.4	0.6521	35.565	914.1	0.6545
6	29.735	940.6	0.5974	33.129	949.4	0.6021	36.026	924.0	0.6054
7	29.781	949.8	0.5484	33.259	961.8	0.5536	36.194	930.0	0.5575
8	29.817	957.8	0.5040	33.351	970.2	0.5092	36.321	935.6	0.5133
9	30.529	974.2	0.4646	34.156	984.3	0.4695	37.209	949.1	0.4736
10	30.420	975.6	0.4300	34.042	983.5	0.4345	37.122	953.5	0.4385
11	30.202	970.4	0.4002	33.778	976.5	0.4042	36.866	954.8	0.4080
12	29.923	962.1	0.3741	33.430	966.2	0.3779	36.514	954.1	0.3814
13	29.603	952.2	0.3514	33.030	954.3	0.3549	36.103	952.3	0.3582
14	29.227	942.0	0.3313	32.567	941.5	0.3346	35.620	949.1	0.3377
15	28.746	932.0	0.3136	31.995	928.4	0.3167	35.016	943.9	0.3196
16	28.067	922.2	0.2979	31.218	914.4	0.3009	34.192	936.3	0.3037
17	26.942	911.9	0.2843	29.983	899.0	0.2872	32.896	926.5	0.2898
18	25.897	895.5	0.2718	28.778	877.2	0.2746	31.583	909.5	0.2770
19	24.665	870.6	0.2605	27.328	848.3	0.2632	29.966	883.9	0.2655
20	22.670	828.7	0.2504	25.005	806.6	0.2531	27.360	842.2	0.2553
21	20.082	784.8	0.2420	22.072	765.1	0.2446	24.113	798.3	0.2468
22	16.663	734.3	0.2351	18.244	718.7	0.2377	19.885	745.8	0.2398
23	7.308	635.4	0.2308	8.027	629.5	0.2336	8.786	641.7	0.2358
24	4.217	601.7	0.2285	4.612	598.5	0.2311	5.033	605.3	0.2332

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.108	635.6	0.7396	7.298	583.4	0.7396	7.616	591.6	0.7396
2	24.705	811.5	0.7396	25.264	632.8	0.7396	26.164	654.9	0.7396
3	32.174	826.1	0.7346	32.857	638.8	0.7351	33.907	657.0	0.7357
4	35.715	848.4	0.7010	36.469	647.2	0.7021	37.573	662.2	0.7037
5	37.102	859.4	0.6564	37.919	654.7	0.6586	39.062	665.9	0.6613
6	37.600	868.2	0.6081	38.486	663.0	0.6114	39.675	670.4	0.6156
7	37.813	879.0	0.5607	38.776	672.4	0.5654	40.024	676.2	0.5712
8	37.996	892.7	0.5169	39.042	682.7	0.5231	40.359	683.0	0.5304
9	38.972	914.6	0.4772	40.120	695.6	0.4850	41.535	692.8	0.4937
10	38.947	930.4	0.4422	40.172	705.4	0.4513	41.661	700.3	0.4614
11	38.742	943.6	0.4116	40.029	713.4	0.4219	41.582	706.9	0.4330
12	38.435	955.4	0.3850	39.771	719.8	0.3961	41.378	712.4	0.4080
13	38.065	966.3	0.3616	39.440	725.0	0.3732	41.091	717.0	0.3857
14	37.616	975.4	0.3409	39.024	729.4	0.3529	40.712	720.9	0.3658
15	37.038	982.5	0.3226	38.473	733.0	0.3348	40.193	724.2	0.3479
16	36.229	986.6	0.3064	37.683	735.5	0.3188	39.431	727.2	0.3320
17	34.931	986.0	0.2923	36.397	737.1	0.3048	38.168	729.6	0.3182
18	33.577	974.9	0.2794	35.028	735.1	0.2918	36.794	729.1	0.3052
19	31.869	950.6	0.2677	33.267	728.0	0.2799	34.989	724.4	0.2932
20	29.083	904.6	0.2573	30.359	712.0	0.2691	31.953	711.1	0.2822
21	25.622	852.8	0.2486	26.749	692.9	0.2602	28.179	694.3	0.2731
22	21.106	788.1	0.2415	22.010	665.2	0.2525	23.174	668.0	0.2650
23	9.358	659.7	0.2375	9.748	605.1	0.2480	10.261	607.1	0.2603
24	5.350	614.8	0.2349	5.544	583.2	0.2441	5.802	584.4	0.2550

Table 4-46. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E5

	Assembly Number E5								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.945	623.4	0.7396	2.651	628.2	0.7396
2	0.000		0.7396	3.596	835.9	0.7396	10.017	855.4	0.7396
3	0.000		0.7396	5.080	980.5	0.7376	13.684	915.1	0.7355
4	0.000		0.6954	6.030	999.8	0.7048	15.513	961.8	0.7011
5	0.000		0.6325	6.538	1049.8	0.6576	16.184	970.8	0.6545
6	0.000	Data Not	0.5735	6.793	1075.9	0.6027	16.396	968.4	0.6036
7	0.000	Required	0.5229	6.900	1087.1	0.5478	16.458	965.9	0.5549
8	0.000		0.4809	6.903	1087.4	0.4975	16.487	967.4	0.5118
9	0.000		0.4453	7.020	1099.8	0.4538	16.915	984.6	0.4740
10	0.000		0.4151	6.839	1080.7	0.4163	16.838	990.5	0.4410
11	0.000		0.3899	6.608	1056.9	0.3850	16.707	996.1	0.4122
12	0.000		0.3686	6.346	1030.6	0.3586	16.527	1000.8	0.3869
13	0.000		0.3505	6.070	1003.6	0.3364	16.303	1003.7	0.3646
14	0.000		0.3351	5.782	976.3	0.3175	16.026	1004.4	0.3450
15	0.000		0.3219	5.476	948.1	0.3012	15.671	1001.6	0.3277
16	0.000		0.3106	5.129	917.2	0.2874	15.181	993.5	0.3123
17	0.000		0.3012	4.612	873.1	0.2756	14.317	974.0	0.2991
18	0.000		0.2932	4.311	848.5	0.2657	13.695	956.4	0.2868
19	0.000		0.2863	4.068	829.2	0.2569	13.069	935.9	0.2755
20	0.000		0.2801	3.803	808.6	0.2491	12.187	903.8	0.2650
21	0.000		0.2749	3.385	777.2	0.2425	10.881	859.6	0.2564
22	0.000		0.2706	2.869	740.2	0.2368	9.151	802.8	0.2491
23	0.000		0.2679	1.208	632.2	0.2332	3.948	657.9	0.2445
24	0.000		0.2666	0.732	603.9	0.2316	2.310	615.9	0.2417

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.652	646.7	0.7396	4.511	647.1	0.7396	4.580	644.0	0.7396
2	13.594	925.0	0.7396	16.510	904.5	0.7396	16.743	888.3	0.7396
3	18.192	970.1	0.7342	21.834	941.7	0.7338	22.130	930.9	0.7338
4	20.338	1008.3	0.6993	24.259	979.7	0.6990	24.583	976.5	0.6990
5	21.038	1011.8	0.6526	25.031	989.8	0.6526	25.367	996.7	0.6527
6	21.175	1002.6	0.6018	25.156	988.1	0.6021	25.494	1000.2	0.6023
7	21.148	991.8	0.5531	25.093	983.1	0.5536	25.429	996.7	0.5537
8	21.124	985.5	0.5098	25.040	979.0	0.5103	25.374	993.3	0.5103
9	21.635	995.5	0.4719	25.619	988.5	0.4721	25.955	996.7	0.4722
10	21.550	994.5	0.4387	25.527	987.6	0.4388	25.859	989.9	0.4388
11	21.413	993.8	0.4097	25.387	987.1	0.4096	25.710	974.8	0.4096
12	21.230	993.4	0.3843	25.208	987.7	0.3840	25.522	959.9	0.3840
13	21.006	993.4	0.3618	24.997	989.5	0.3613	25.301	943.7	0.3613
14	20.726	993.0	0.3420	24.735	992.1	0.3412	25.029	927.7	0.3413
15	20.352	990.7	0.3244	24.376	994.2	0.3234	24.661	913.6	0.3234
16	19.810	984.5	0.3087	23.833	994.0	0.3075	24.108	898.2	0.3075
17	18.859	974.1	0.2951	22.858	990.7	0.2935	23.121	880.1	0.2936
18	18.092	957.1	0.2827	22.007	978.9	0.2808	22.257	860.8	0.2808
19	17.258	933.3	0.2713	21.024	958.4	0.2692	21.257	836.4	0.2694
20	15.994	891.2	0.2611	19.441	916.0	0.2590	19.647	799.0	0.2591
21	14.251	845.5	0.2526	17.327	869.2	0.2504	17.504	760.8	0.2505
22	11.932	787.7	0.2454	14.493	808.4	0.2433	14.635	717.1	0.2434
23	5.170	653.1	0.2409	6.332	664.1	0.2386	6.394	626.1	0.2387
24	2.999	612.2	0.2384	3.662	618.8	0.2361	3.696	596.6	0.2363

Table 4-46. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E5

	Assembly Number E5								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.266	641.9	0.7396	5.853	623.7	0.7396	6.296	612.9	0.7396
2	18.981	866.1	0.7396	20.821	781.4	0.7396	22.162	734.3	0.7396
3	24.884	891.3	0.7343	27.122	794.7	0.7355	28.731	741.8	0.7366
4	27.523	919.4	0.7003	29.941	817.0	0.7031	31.674	757.6	0.7055
5	28.372	929.5	0.6549	30.921	833.5	0.6597	32.751	770.2	0.6639
6	28.528	934.0	0.6054	31.200	849.4	0.6121	33.131	783.5	0.6183
7	28.481	936.8	0.5574	31.272	865.1	0.5657	33.307	797.5	0.5735
8	28.445	939.8	0.5141	31.344	879.6	0.5233	33.491	812.9	0.5325
9	29.100	951.6	0.4758	32.138	898.6	0.4852	34.430	833.2	0.4951
10	28.998	950.6	0.4421	32.084	905.3	0.4512	34.462	845.5	0.4615
11	28.817	945.5	0.4127	31.910	906.3	0.4213	34.351	854.6	0.4315
12	28.581	937.9	0.3869	31.656	903.8	0.3950	34.139	860.8	0.4049
13	28.303	929.0	0.3641	31.347	899.5	0.3717	33.857	864.8	0.3812
14	27.970	919.6	0.3439	30.972	893.7	0.3511	33.500	867.4	0.3601
15	27.535	909.3	0.3260	30.490	887.2	0.3327	33.027	868.8	0.3414
16	26.910	898.5	0.3099	29.811	879.9	0.3165	32.349	868.9	0.3248
17	25.845	886.8	0.2960	28.685	871.6	0.3023	31.216	867.9	0.3103
18	24.866	870.0	0.2832	27.603	858.0	0.2892	30.091	861.5	0.2969
19	23.705	847.0	0.2717	26.291	838.3	0.2775	28.687	848.1	0.2848
20	21.827	810.1	0.2614	24.149	805.0	0.2669	26.344	819.5	0.2739
21	19.390	771.5	0.2528	21.417	769.5	0.2581	23.375	787.1	0.2649
22	16.145	724.8	0.2457	17.776	724.2	0.2507	19.377	740.8	0.2573
23	7.058	629.5	0.2411	7.780	629.8	0.2462	8.500	637.4	0.2528
24	4.058	598.2	0.2386	4.447	597.9	0.2434	4.833	601.7	0.2496

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.529	604.4	0.7396	6.808	595.0	0.7396	7.262	606.0	0.7396
2	22.851	701.2	0.7396	23.708	675.1	0.7396	25.042	705.4	0.7396
3	29.546	705.2	0.7371	30.623	686.6	0.7378	32.221	711.5	0.7386
4	32.541	715.3	0.7068	33.751	703.5	0.7085	35.457	722.7	0.7106
5	33.662	724.0	0.6663	34.977	717.1	0.6696	36.747	729.5	0.6733
6	34.095	734.5	0.6218	35.508	730.0	0.6269	37.333	735.3	0.6323
7	34.339	748.3	0.5782	35.847	742.8	0.5851	37.724	740.9	0.5920
8	34.603	764.9	0.5382	36.202	755.2	0.5464	38.137	747.2	0.5546
9	35.649	787.6	0.5016	37.356	770.2	0.5108	39.383	757.2	0.5199
10	35.766	806.2	0.4686	37.531	778.4	0.4784	39.609	762.9	0.4881
11	35.729	822.7	0.4390	37.529	783.4	0.4490	39.642	766.7	0.4591
12	35.582	837.5	0.4123	37.403	786.4	0.4225	39.538	769.2	0.4326
13	35.355	850.3	0.3886	37.187	788.0	0.3985	39.337	770.9	0.4086
14	35.044	861.1	0.3673	36.883	789.0	0.3770	39.043	772.0	0.3870
15	34.612	870.8	0.3483	36.453	789.3	0.3578	38.620	772.8	0.3676
16	33.967	878.8	0.3315	35.807	789.1	0.3407	37.977	773.1	0.3503
17	32.859	884.8	0.3168	34.689	787.7	0.3259	36.858	773.0	0.3355
18	31.732	884.3	0.3033	33.519	781.6	0.3121	35.655	769.3	0.3214
19	30.291	875.4	0.2908	31.991	769.2	0.2993	34.046	760.3	0.3085
20	27.836	848.9	0.2797	29.363	745.4	0.2877	31.239	740.8	0.2966
21	24.723	816.0	0.2704	26.047	718.3	0.2782	27.701	717.3	0.2867
22	20.491	765.3	0.2626	21.536	682.6	0.2698	22.861	683.8	0.2780
23	9.007	648.0	0.2581	9.460	612.2	0.2651	10.047	613.8	0.2733
24	5.105	607.1	0.2545	5.335	587.2	0.2609	5.636	588.2	0.2685

Table 4-47. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E6

	Assembly Number E6								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.129	636.5	0.7396	3.136	641.0	0.7396
2	0.000		0.7396	4.277	899.7	0.7396	11.683	911.0	0.7396
3	0.000		0.6989	6.047	1001.4	0.7290	15.693	970.8	0.7272
4	0.000		0.6071	7.158	1114.5	0.6832	17.568	1013.9	0.6819
5	0.000		0.5264	7.713	1175.9	0.6208	18.205	1018.7	0.6239
6	0.000	Data Not	0.4652	7.963	1204.7	0.5543	18.409	1016.0	0.5652
7	0.000	Required	0.4191	8.041	1213.8	0.4934	18.520	1017.9	0.5127
8	0.000		0.3834	8.007	1209.8	0.4421	18.623	1025.9	0.4683
9	0.000		0.3544	8.104	1221.2	0.3997	19.196	1054.2	0.4304
10	0.000		0.3303	7.880	1195.1	0.3644	19.229	1069.8	0.3978
11	0.000		0.3102	7.596	1162.7	0.3354	19.204	1085.7	0.3700
12	0.000		0.2934	7.266	1126.2	0.3114	19.099	1099.8	0.3462
13	0.000		0.2790	6.904	1087.5	0.2915	18.918	1111.3	0.3253
14	0.000		0.2666	6.517	1047.7	0.2748	18.651	1118.9	0.3071
15	0.000		0.2560	6.104	1006.9	0.2607	18.278	1121.5	0.2910
16	0.000		0.2469	5.646	963.7	0.2486	17.744	1116.6	0.2766
17	0.000		0.2390	5.013	907.1	0.2386	16.816	1097.9	0.2642
18	0.000		0.2319	4.605	872.6	0.2301	16.071	1076.9	0.2526
19	0.000		0.2257	4.267	845.0	0.2230	15.280	1049.4	0.2417
20	0.000		0.2204	3.925	818.0	0.2166	14.157	1003.7	0.2318
21	0.000		0.2159	3.460	782.8	0.2112	12.629	944.8	0.2236
22	0.000		0.2122	2.929	744.4	0.2066	10.666	871.3	0.2166
23	0.000		0.2099	1.245	634.4	0.2034	4.694	684.7	0.2123
24	0.000		0.2086	0.769	606.1	0.2021	2.805	632.2	0.2097

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.973	631.7	0.7396	4.666	629.3	0.7396	4.733	641.4	0.7396
2	14.623	847.9	0.7396	16.968	825.4	0.7396	17.193	874.8	0.7396
3	19.416	882.2	0.7293	22.372	854.6	0.7308	22.657	913.6	0.7309
4	21.633	919.4	0.6876	24.867	888.8	0.6916	25.180	958.3	0.6918
5	22.406	934.7	0.6338	25.758	903.8	0.6406	26.084	979.8	0.6410
6	22.656	939.9	0.5782	26.052	909.4	0.5875	26.383	988.2	0.5879
7	22.774	940.7	0.5275	26.179	910.6	0.5380	26.510	988.2	0.5384
8	22.877	940.7	0.4833	26.280	910.3	0.4943	26.610	986.5	0.4946
9	23.541	951.1	0.4449	27.008	918.6	0.4558	27.343	995.0	0.4562
10	23.560	949.5	0.4118	27.017	917.3	0.4223	27.349	989.9	0.4226
11	23.504	946.0	0.3832	26.939	914.4	0.3933	27.264	978.1	0.3936
12	23.359	941.4	0.3586	26.767	911.0	0.3684	27.084	964.9	0.3686
13	23.132	936.1	0.3372	26.516	907.9	0.3465	26.824	950.1	0.3468
14	22.815	930.5	0.3183	26.175	904.8	0.3273	26.474	935.7	0.3275
15	22.386	924.2	0.3016	25.717	901.1	0.3103	26.007	921.4	0.3105
16	21.784	916.6	0.2870	25.077	896.3	0.2953	25.359	908.9	0.2955
17	20.774	907.6	0.2743	24.017	890.0	0.2825	24.292	898.2	0.2827
18	19.892	892.7	0.2623	23.039	878.0	0.2702	23.303	881.5	0.2704
19	18.900	871.3	0.2512	21.897	859.6	0.2590	22.145	857.9	0.2592
20	17.417	834.3	0.2410	20.133	826.2	0.2486	20.354	819.6	0.2488
21	15.496	795.8	0.2326	17.902	791.0	0.2400	18.091	776.4	0.2402
22	13.016	748.0	0.2254	14.999	745.4	0.2326	15.149	726.9	0.2328
23	5.729	638.5	0.2211	6.618	638.9	0.2283	6.684	630.4	0.2285
24	3.377	603.5	0.2181	3.869	603.8	0.2250	3.905	598.7	0.2252

Table 4-47. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E6

	Assembly Number E6								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.407	640.3	0.7396	6.035	628.4	0.7396	6.566	624.0	0.7396
2	19.374	856.8	0.7396	21.341	799.1	0.7396	22.957	775.3	0.7396
3	25.356	883.2	0.7318	27.783	818.1	0.7331	29.765	790.3	0.7341
4	28.090	914.8	0.6939	30.756	848.6	0.6969	32.925	815.9	0.6994
5	29.087	929.2	0.6445	31.924	871.2	0.6495	34.215	833.0	0.6538
6	29.434	936.7	0.5926	32.406	889.5	0.5994	34.791	846.5	0.6053
7	29.593	941.7	0.5437	32.674	904.6	0.5517	35.139	858.1	0.5588
8	29.723	946.5	0.5000	32.894	917.3	0.5084	35.436	869.5	0.5162
9	30.539	959.7	0.4613	33.828	934.1	0.4695	36.484	886.6	0.4775
10	30.547	960.1	0.4275	33.862	937.9	0.4353	36.575	895.3	0.4431
11	30.432	955.2	0.3982	33.733	935.9	0.4055	36.481	900.7	0.4130
12	30.205	947.7	0.3728	33.468	930.4	0.3796	36.235	903.6	0.3868
13	29.890	939.0	0.3507	33.102	923.1	0.3571	35.878	905.0	0.3639
14	29.482	930.0	0.3312	32.638	915.1	0.3372	35.415	905.2	0.3436
15	28.958	921.1	0.3140	32.050	906.1	0.3196	34.820	904.1	0.3258
16	28.249	911.8	0.2988	31.272	896.6	0.3042	34.024	901.3	0.3099
17	27.117	901.9	0.2858	30.060	885.6	0.2909	32.782	896.7	0.2964
18	26.026	886.7	0.2735	28.845	868.8	0.2784	31.497	886.0	0.2837
19	24.712	863.9	0.2621	27.354	845.5	0.2668	29.884	867.7	0.2719
20	22.646	825.3	0.2517	24.997	808.6	0.2562	27.292	833.6	0.2611
21	20.074	784.0	0.2431	22.107	770.2	0.2475	24.127	795.5	0.2522
22	16.734	733.9	0.2357	18.359	723.5	0.2400	19.997	745.4	0.2445
23	7.390	634.0	0.2315	8.116	630.2	0.2358	8.863	640.4	0.2403
24	4.291	600.7	0.2281	4.685	598.4	0.2323	5.093	604.0	0.2367

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.873	619.4	0.7396	7.110	589.5	0.7396	7.484	597.5	0.7396
2	23.865	752.0	0.7396	24.578	654.4	0.7396	25.655	675.1	0.7396
3	30.860	761.3	0.7348	31.736	661.8	0.7355	33.006	678.4	0.7362
4	34.103	778.8	0.7010	35.072	673.2	0.7025	36.422	686.3	0.7044
5	35.444	789.8	0.6565	36.493	683.1	0.6593	37.897	691.7	0.6628
6	36.068	800.2	0.6090	37.197	693.2	0.6133	38.655	697.2	0.6185
7	36.472	812.6	0.5633	37.686	704.0	0.5693	39.203	703.2	0.5761
8	36.837	827.9	0.5213	38.140	715.5	0.5290	39.724	710.1	0.5373
9	37.984	850.7	0.4830	39.392	729.4	0.4920	41.066	719.4	0.5015
10	38.144	867.0	0.4488	39.620	738.5	0.4589	41.352	725.5	0.4693
11	38.113	882.2	0.4187	39.639	745.2	0.4294	41.416	730.2	0.4405
12	37.921	895.4	0.3923	39.485	750.4	0.4035	41.299	734.2	0.4151
13	37.612	907.3	0.3692	39.208	754.8	0.3805	41.051	737.3	0.3923
14	37.189	917.4	0.3488	38.815	758.9	0.3602	40.681	739.7	0.3720
15	36.628	926.0	0.3307	38.286	763.4	0.3421	40.174	742.1	0.3539
16	35.856	932.2	0.3147	37.545	767.7	0.3260	39.454	744.4	0.3378
17	34.627	935.5	0.3009	36.336	770.5	0.3122	38.265	746.5	0.3241
18	33.321	930.1	0.2879	35.014	768.3	0.2990	36.937	745.9	0.3108
19	31.646	914.3	0.2759	33.277	759.6	0.2867	35.150	740.5	0.2984
20	28.910	878.8	0.2649	30.393	739.4	0.2754	32.126	725.6	0.2868
21	25.567	836.8	0.2558	26.868	715.3	0.2659	28.419	706.7	0.2773
22	21.174	778.6	0.2479	22.209	681.3	0.2575	23.465	677.0	0.2684
23	9.407	654.6	0.2438	9.855	611.6	0.2529	10.411	611.0	0.2636
24	5.390	611.4	0.2400	5.617	586.8	0.2481	5.901	586.7	0.2578

Table 4-48. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E7

	Assembly Number E7								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.822	614.7	0.7396	2.625	632.3	0.7396
2	0.000		0.7396	3.152	796.5	0.7396	10.074	883.3	0.7396
3	0.000		0.7396	4.556	927.0	0.7396	14.042	1039.4	0.7344
4	0.000		0.7134	5.553	955.1	0.7115	16.099	1021.8	0.6980
5	0.000		0.6564	6.145	1010.9	0.6677	16.820	1029.4	0.6492
6	0.000	Data Not	0.6010	6.467	1042.7	0.6168	16.969	1019.3	0.5974
7	0.000	Required	0.5505	6.618	1058.0	0.5657	16.953	1009.6	0.5488
8	0.000		0.5071	6.660	1062.2	0.5180	16.926	1005.6	0.5058
9	0.000		0.4698	6.810	1077.7	0.4747	17.324	1019.9	0.4677
10	0.000		0.4377	6.663	1062.6	0.4365	17.203	1021.5	0.4340
11	0.000		0.4107	6.465	1042.5	0.4041	17.026	1022.7	0.4048
12	0.000		0.3879	6.254	1021.5	0.3768	16.817	1022.8	0.3795
13	0.000		0.3686	6.050	1001.7	0.3535	16.593	1021.6	0.3574
14	0.000		0.3521	5.831	980.9	0.3334	16.321	1018.6	0.3378
15	0.000		0.3380	5.559	955.7	0.3160	15.945	1012.5	0.3205
16	0.000		0.3260	5.187	922.3	0.3008	15.372	1001.0	0.3052
17	0.000		0.3161	4.604	872.5	0.2879	14.369	977.4	0.2921
18	0.000		0.3079	4.244	843.1	0.2771	13.615	955.7	0.2802
19	0.000		0.3008	3.959	820.6	0.2677	12.881	931.7	0.2693
20	0.000		0.2945	3.668	798.3	0.2595	11.915	896.8	0.2595
21	0.000		0.2892	3.223	765.4	0.2524	10.498	848.9	0.2512
22	0.000		0.2848	2.695	728.1	0.2466	8.692	790.1	0.2445
23	0.000		0.2821	1.131	627.5	0.2427	3.712	652.0	0.2398
24	0.000		0.2808	0.678	600.8	0.2411	2.156	612.4	0.2375

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.464	631.9	0.7396	4.147	628.3	0.7396	4.173	590.0	0.7396
2	13.105	858.6	0.7396	15.463	827.2	0.7396	15.556	675.7	0.7396
3	17.865	892.9	0.7351	20.811	853.4	0.7359	20.933	693.3	0.7360
4	20.232	927.0	0.7005	23.426	883.8	0.7030	23.568	717.1	0.7033
5	21.065	939.7	0.6540	24.364	897.0	0.6585	24.520	734.3	0.6591
6	21.250	943.8	0.6041	24.597	903.1	0.6104	24.768	753.2	0.6113
7	21.242	944.7	0.5565	24.610	905.8	0.5639	24.795	771.2	0.5651
8	21.219	945.1	0.5136	24.599	907.4	0.5214	24.803	796.3	0.5228
9	21.715	956.4	0.4752	25.174	917.6	0.4830	25.428	866.7	0.4847
10	21.585	955.4	0.4411	25.044	917.6	0.4487	25.410	1049.4	0.4511
11	21.382	952.4	0.4115	24.832	916.4	0.4189	25.238	1124.2	0.4210
12	21.139	948.5	0.3857	24.572	914.2	0.3928	24.975	1118.4	0.3946
13	20.872	943.5	0.3632	24.286	911.7	0.3700	24.676	1093.6	0.3713
14	20.551	938.0	0.3432	23.945	909.2	0.3497	24.318	1062.1	0.3508
15	20.118	931.5	0.3256	23.486	905.8	0.3318	23.842	1031.5	0.3327
16	19.477	923.9	0.3100	22.811	901.5	0.3160	23.148	998.4	0.3167
17	18.390	914.5	0.2967	21.678	895.6	0.3024	21.996	966.5	0.3031
18	17.496	899.2	0.2844	20.688	883.6	0.2899	20.984	930.9	0.2905
19	16.556	877.1	0.2733	19.597	864.9	0.2786	19.866	889.1	0.2791
20	15.224	839.3	0.2633	17.979	830.8	0.2683	18.211	835.0	0.2687
21	13.405	799.7	0.2550	15.845	794.8	0.2599	16.041	785.6	0.2603
22	11.062	749.8	0.2481	13.070	748.0	0.2529	13.223	730.6	0.2533
23	4.713	635.9	0.2436	5.580	637.0	0.2484	5.646	630.4	0.2488
24	2.708	602.0	0.2412	3.186	602.6	0.2458	3.221	597.7	0.2462

Table 4-48. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E7

	Assembly Number E7								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.769	630.5	0.7396	5.242	610.7	0.7396	5.726	618.1	0.7396
2	17.533	824.2	0.7396	19.077	741.5	0.7396	20.621	764.4	0.7396
3	23.416	851.9	0.7363	25.363	760.1	0.7369	27.335	789.0	0.7376
4	26.318	890.7	0.7042	28.481	785.6	0.7060	30.768	832.5	0.7078
5	27.391	908.9	0.6609	29.704	803.9	0.6644	32.161	857.0	0.6675
6	27.720	921.3	0.6140	30.148	818.2	0.6192	32.695	870.2	0.6233
7	27.880	942.0	0.5686	30.396	829.3	0.5753	32.999	878.6	0.5801
8	27.963	953.9	0.5264	30.556	839.2	0.5342	33.213	886.8	0.5394
9	28.678	968.5	0.4880	31.377	853.0	0.4965	34.140	903.0	0.5017
10	28.656	967.8	0.4539	31.382	856.5	0.4628	34.209	913.0	0.4679
11	28.458	963.6	0.4236	31.182	856.2	0.4326	34.040	917.8	0.4376
12	28.187	962.3	0.3971	30.894	854.0	0.4061	33.766	920.0	0.4107
13	27.964	974.7	0.3744	30.659	852.4	0.3832	33.563	925.1	0.3876
14	27.584	971.1	0.3536	30.391	867.2	0.3629	33.410	943.5	0.3675
15	27.031	958.6	0.3350	30.229	921.1	0.3459	33.245	943.0	0.3500
16	26.238	942.8	0.3186	29.642	950.9	0.3298	32.612	935.6	0.3333
17	24.971	924.8	0.3045	28.362	949.0	0.3150	31.278	927.0	0.3181
18	23.795	899.8	0.2917	27.066	931.5	0.3013	29.882	911.2	0.3040
19	22.459	867.7	0.2801	25.573	909.2	0.2891	28.226	886.2	0.2916
20	20.474	821.3	0.2698	23.244	862.3	0.2779	25.619	845.1	0.2803
21	17.963	776.1	0.2613	20.343	812.2	0.2687	22.410	801.9	0.2710
22	14.747	726.5	0.2543	16.635	753.3	0.2612	18.302	749.1	0.2633
23	6.306	629.1	0.2498	7.125	639.3	0.2565	7.872	640.4	0.2587
24	3.582	598.1	0.2472	4.022	602.7	0.2535	4.431	604.1	0.2556

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.055	623.9	0.7396	6.471	613.3	0.7396	7.129	628.0	0.7396
2	21.635	777.7	0.7396	22.902	736.9	0.7396	24.867	784.7	0.7396
3	28.574	792.0	0.7381	30.146	751.5	0.7390	32.585	803.9	0.7395
4	32.095	811.3	0.7089	33.840	775.6	0.7108	36.554	836.7	0.7123
5	33.534	821.6	0.6695	35.420	795.8	0.6727	38.343	862.6	0.6752
6	34.108	830.6	0.6261	36.128	815.5	0.6306	39.221	884.2	0.6340
7	34.458	841.2	0.5834	36.609	835.3	0.5890	39.839	902.1	0.5928
8	34.731	854.9	0.5432	37.018	856.3	0.5494	40.364	917.6	0.5532
9	35.747	876.1	0.5057	38.199	882.6	0.5123	41.686	936.7	0.5157
10	35.874	890.2	0.4719	38.415	897.1	0.4784	41.952	943.6	0.4814
11	35.754	902.3	0.4414	38.350	906.2	0.4477	41.909	946.6	0.4502
12	35.524	913.3	0.4144	38.145	910.4	0.4203	41.691	944.8	0.4225
13	35.353	921.4	0.3910	37.971	909.9	0.3964	41.472	938.6	0.3983
14	35.222	927.0	0.3706	37.814	905.6	0.3755	41.249	929.6	0.3771
15	35.068	929.9	0.3528	37.615	898.1	0.3572	40.966	918.2	0.3585
16	34.451	934.0	0.3359	36.955	891.1	0.3400	40.228	907.8	0.3412
17	33.131	937.6	0.3206	35.588	883.4	0.3246	38.786	897.9	0.3256
18	31.715	932.4	0.3064	34.087	869.7	0.3102	37.168	882.7	0.3112
19	29.995	916.1	0.2938	32.231	848.4	0.2974	35.139	860.7	0.2984
20	27.235	878.3	0.2823	29.237	812.8	0.2858	31.857	825.4	0.2868
21	23.842	835.0	0.2729	25.576	774.0	0.2763	27.860	786.0	0.2773
22	19.469	776.5	0.2652	20.852	726.0	0.2683	22.689	736.6	0.2694
23	8.403	652.3	0.2605	9.028	632.0	0.2638	9.881	638.3	0.2649
24	4.723	610.5	0.2575	5.060	599.1	0.2606	5.533	603.5	0.2618

Table 4-49. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E8

	Assembly Number E8								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.701	606.3	0.7396	2.141	617.0	0.7396
2	0.000		0.7396	2.692	757.5	0.7396	8.206	807.0	0.7396
3	0.000		0.7396	3.864	860.5	0.7396	11.552	927.5	0.7396
4	0.000		0.7269	4.702	880.6	0.7234	13.426	921.3	0.7177
5	0.000		0.6782	5.236	926.6	0.6901	14.249	936.5	0.6819
6	0.000	Data Not	0.6272	5.560	955.8	0.6490	14.600	938.0	0.6397
7	0.000	Required	0.5787	5.742	972.6	0.6051	14.797	938.8	0.5962
8	0.000		0.5356	5.824	980.2	0.5623	14.952	942.6	0.5545
9	0.000		0.4976	6.009	997.8	0.5214	15.457	959.9	0.5161
10	0.000		0.4644	5.919	989.2	0.4832	15.435	963.6	0.4811
11	0.000		0.4362	5.786	976.7	0.4496	15.342	965.8	0.4501
12	0.000		0.4122	5.658	964.8	0.4208	15.227	966.5	0.4229
13	0.000		0.3916	5.570	956.7	0.3960	15.126	965.8	0.3990
14	0.000		0.3741	5.480	948.5	0.3742	15.004	964.1	0.3775
15	0.000		0.3592	5.312	933.4	0.3545	14.770	960.5	0.3582
16	0.000		0.3464	5.003	906.3	0.3367	14.314	952.5	0.3410
17	0.000		0.3357	4.463	860.9	0.3215	13.409	933.0	0.3261
18	0.000		0.3268	4.127	833.8	0.3088	12.745	915.8	0.3128
19	0.000		0.3192	3.851	812.3	0.2979	12.089	896.3	0.3006
20	0.000		0.3124	3.565	790.6	0.2882	11.225	867.6	0.2897
21	0.000		0.3066	3.139	759.3	0.2800	9.941	826.6	0.2805
22	0.000		0.3019	2.627	723.4	0.2733	8.283	775.1	0.2729
23	0.000		0.2989	1.091	625.1	0.2687	3.523	646.5	0.2678
24	0.000		0.2974	0.647	599.0	0.2669	2.030	609.1	0.2652

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.147	647.2	0.7396	3.950	641.1	0.7396	3.990	607.2	0.7396
2	11.920	942.4	0.7396	14.747	891.8	0.7396	14.882	734.3	0.7396
3	16.283	1081.1	0.7381	19.875	935.0	0.7372	20.047	754.4	0.7374
4	18.519	1041.7	0.7092	22.457	982.1	0.7075	22.652	784.3	0.7079
5	19.404	1049.6	0.6694	23.487	1002.6	0.6669	23.699	807.2	0.6675
6	19.710	1043.9	0.6244	23.841	1009.5	0.6208	24.068	827.9	0.6216
7	19.835	1034.8	0.5791	23.969	1009.9	0.5747	24.211	849.2	0.5756
8	19.937	1028.1	0.5368	24.062	1008.6	0.5318	24.319	871.1	0.5329
9	20.521	1038.1	0.4984	24.726	1020.2	0.4930	25.002	899.7	0.4942
10	20.469	1034.3	0.4637	24.666	1019.0	0.4582	24.951	913.6	0.4593
11	20.347	1030.6	0.4332	24.537	1018.0	0.4276	24.824	916.7	0.4286
12	20.206	1027.4	0.4064	24.389	1017.0	0.4006	24.675	915.2	0.4016
13	20.091	1025.6	0.3828	24.268	1016.1	0.3770	24.550	908.9	0.3779
14	19.968	1025.5	0.3617	24.141	1015.5	0.3559	24.416	898.2	0.3567
15	19.737	1025.8	0.3426	23.899	1013.9	0.3369	24.167	887.6	0.3376
16	19.264	1023.7	0.3254	23.397	1009.7	0.3196	23.658	877.1	0.3204
17	18.308	1017.4	0.3101	22.389	1002.3	0.3043	22.641	863.8	0.3050
18	17.512	1001.2	0.2967	21.480	986.3	0.2908	21.720	846.4	0.2915
19	16.638	975.0	0.2847	20.428	961.7	0.2789	20.650	821.0	0.2795
20	15.347	925.8	0.2744	18.793	915.9	0.2686	18.990	787.0	0.2692
21	13.577	873.0	0.2656	16.637	867.3	0.2599	16.807	751.9	0.2604
22	11.273	807.7	0.2584	13.810	805.7	0.2527	13.948	712.3	0.2533
23	4.812	658.4	0.2535	5.943	661.2	0.2477	6.006	627.2	0.2484
24	2.765	615.7	0.2512	3.410	617.2	0.2455	3.445	597.7	0.2460

Table 4-49. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E8

	Assembly Number E8								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.408	608.5	0.7396	4.982	622.2	0.7396	5.637	640.0	0.7396
2	16.269	736.1	0.7396	18.141	785.9	0.7396	20.238	851.7	0.7396
3	21.817	756.8	0.7387	24.214	814.3	0.7395	26.887	889.2	0.7393
4	24.658	787.0	0.7110	27.383	856.4	0.7127	30.375	939.2	0.7123
5	25.882	810.5	0.6726	28.848	888.7	0.6753	32.002	965.7	0.6748
6	26.412	832.4	0.6289	29.567	915.0	0.6326	32.783	976.1	0.6318
7	26.713	854.6	0.5847	30.017	936.3	0.5887	33.239	977.1	0.5877
8	26.981	877.7	0.5430	30.405	953.8	0.5469	33.618	975.5	0.5455
9	27.861	907.1	0.5045	31.434	976.1	0.5079	34.691	983.0	0.5065
10	27.901	921.0	0.4692	31.510	981.5	0.4721	34.751	980.3	0.4706
11	27.809	926.4	0.4378	31.404	979.4	0.4402	34.609	974.2	0.4388
12	27.653	925.3	0.4100	31.193	971.1	0.4120	34.352	966.5	0.4108
13	27.492	919.7	0.3855	30.946	958.3	0.3871	34.044	956.4	0.3860
14	27.301	911.0	0.3637	30.647	942.4	0.3651	33.673	944.7	0.3642
15	26.984	900.7	0.3440	30.208	924.8	0.3455	33.151	931.3	0.3445
16	26.396	888.9	0.3265	29.490	906.4	0.3278	32.340	916.6	0.3271
17	25.290	875.8	0.3108	28.245	887.2	0.3122	30.990	900.2	0.3116
18	24.238	856.9	0.2970	27.012	862.8	0.2984	29.609	877.7	0.2979
19	22.987	831.5	0.2848	25.535	833.4	0.2863	27.933	848.4	0.2859
20	21.045	793.4	0.2742	23.272	793.4	0.2757	25.375	806.8	0.2755
21	18.577	756.8	0.2652	20.484	755.5	0.2668	22.287	766.6	0.2667
22	15.384	716.0	0.2579	16.927	714.5	0.2596	18.385	723.0	0.2595
23	6.662	628.7	0.2533	7.374	628.8	0.2550	8.056	633.3	0.2551
24	3.807	598.2	0.2508	4.207	599.0	0.2526	4.593	601.7	0.2527

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.012	633.3	0.7396	6.336	601.0	0.7396	7.021	630.9	0.7396
2	21.416	818.9	0.7396	22.425	697.5	0.7396	24.486	797.4	0.7396
3	28.368	846.3	0.7395	29.632	736.4	0.7396	32.167	862.8	0.7396
4	32.000	880.5	0.7129	33.411	729.8	0.7143	36.194	845.2	0.7153
5	33.685	894.6	0.6758	35.213	745.5	0.6783	38.170	866.9	0.6801
6	34.482	898.6	0.6331	36.122	760.9	0.6368	39.221	885.0	0.6393
7	34.944	900.1	0.5892	36.701	777.3	0.5942	39.918	900.4	0.5972
8	35.337	903.6	0.5472	37.216	794.8	0.5534	40.529	913.1	0.5564
9	36.465	917.4	0.5081	38.488	816.0	0.5152	41.925	929.9	0.5180
10	36.560	926.3	0.4723	38.669	828.9	0.4800	42.155	936.6	0.4826
11	36.452	935.0	0.4405	38.615	837.1	0.4484	42.120	939.2	0.4508
12	36.227	943.3	0.4124	38.417	841.2	0.4203	41.905	936.8	0.4224
13	35.949	951.2	0.3876	38.146	842.3	0.3954	41.594	931.4	0.3973
14	35.603	957.8	0.3656	37.789	840.6	0.3732	41.184	924.2	0.3750
15	35.102	963.4	0.3459	37.267	837.4	0.3533	40.599	915.7	0.3549
16	34.304	966.8	0.3284	36.437	832.5	0.3355	39.702	906.8	0.3371
17	32.957	967.6	0.3128	35.047	826.0	0.3197	38.237	896.9	0.3213
18	31.540	958.0	0.2990	33.552	814.3	0.3057	36.623	881.4	0.3071
19	29.779	935.8	0.2868	31.668	796.2	0.2932	34.566	859.4	0.2946
20	27.044	891.2	0.2763	28.727	766.9	0.2824	31.329	823.2	0.2837
21	23.751	842.4	0.2673	25.196	734.3	0.2732	27.453	782.9	0.2745
22	19.583	783.1	0.2602	20.718	693.9	0.2656	22.520	732.9	0.2669
23	8.622	658.6	0.2557	9.121	617.4	0.2608	9.955	636.5	0.2622
24	4.915	615.6	0.2533	5.179	590.9	0.2579	5.638	602.3	0.2593

Table 4-50. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E9

	Assembly Number E9								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.832	615.4	0.7396	2.841	641.1	0.7396
2	0.000		0.7396	3.174	798.5	0.7396	10.754	921.2	0.7396
3	0.000		0.7396	4.585	929.9	0.7396	14.796	1087.9	0.7308
4	0.000		0.6919	5.622	961.5	0.7106	16.865	1063.3	0.6905
5	0.000		0.6269	6.306	1026.7	0.6656	17.637	1068.7	0.6381
6	0.000	Data Not	0.5659	6.784	1075.0	0.6129	17.902	1055.7	0.5840
7	0.000	Required	0.5138	7.108	1109.2	0.5587	18.031	1044.0	0.5340
8	0.000		0.4707	7.272	1126.9	0.5071	18.118	1039.5	0.4894
9	0.000		0.4345	7.471	1148.7	0.4602	18.599	1056.3	0.4499
10	0.000		0.4037	7.305	1130.5	0.4196	18.504	1060.6	0.4153
11	0.000		0.3781	7.060	1104.0	0.3857	18.332	1065.1	0.3856
12	0.000		0.3567	6.787	1075.3	0.3577	18.112	1068.3	0.3601
13	0.000		0.3386	6.509	1046.9	0.3341	17.858	1069.8	0.3380
14	0.000		0.3233	6.217	1017.9	0.3142	17.548	1068.7	0.3186
15	0.000		0.3102	5.883	985.8	0.2971	17.133	1063.7	0.3016
16	0.000		0.2991	5.470	947.6	0.2826	16.535	1052.5	0.2865
17	0.000		0.2899	4.862	894.2	0.2704	15.524	1028.6	0.2737
18	0.000		0.2822	4.501	864.0	0.2602	14.761	1005.3	0.2619
19	0.000		0.2756	4.228	841.9	0.2512	14.022	979.0	0.2512
20	0.000		0.2698	3.948	819.8	0.2433	13.010	939.1	0.2415
21	0.000		0.2649	3.500	785.7	0.2364	11.538	886.3	0.2336
22	0.000		0.2609	2.950	745.9	0.2308	9.621	820.6	0.2270
23	0.000		0.2583	1.246	634.5	0.2271	4.148	663.9	0.2226
24	0.000		0.2569	0.754	605.2	0.2256	2.439	619.7	0.2203

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.456	611.8	0.7396	3.932	606.7	0.7396	3.988	627.3	0.7396
2	12.938	763.9	0.7396	14.566	734.8	0.7396	14.767	835.2	0.7396
3	17.528	783.1	0.7338	19.542	748.6	0.7359	19.808	884.6	0.7359
4	19.823	804.6	0.6977	22.004	766.4	0.7026	22.305	938.9	0.7027
5	20.708	815.6	0.6501	22.979	776.1	0.6585	23.297	966.5	0.6587
6	21.047	822.9	0.6005	23.386	783.6	0.6121	23.712	979.8	0.6123
7	21.238	829.0	0.5538	23.634	789.9	0.5679	23.965	988.2	0.5680
8	21.388	835.3	0.5114	23.840	796.1	0.5273	24.177	998.4	0.5274
9	22.003	848.9	0.4730	24.565	808.5	0.4901	24.917	1024.5	0.4901
10	21.949	853.1	0.4387	24.554	813.4	0.4564	24.914	1038.6	0.4563
11	21.798	855.3	0.4088	24.434	817.0	0.4267	24.796	1042.2	0.4265
12	21.588	856.3	0.3829	24.247	819.6	0.4005	24.604	1033.3	0.4003
13	21.333	856.2	0.3601	24.012	821.9	0.3774	24.359	1015.7	0.3772
14	21.012	855.1	0.3401	23.702	823.2	0.3571	24.037	995.0	0.3568
15	20.576	852.9	0.3225	23.270	823.7	0.3390	23.591	971.5	0.3388
16	19.946	849.6	0.3071	22.637	823.3	0.3233	22.943	946.9	0.3230
17	18.892	845.3	0.2941	21.571	821.9	0.3102	21.860	919.8	0.3099
18	18.037	835.9	0.2818	20.665	816.1	0.2976	20.934	889.1	0.2974
19	17.148	821.0	0.2705	19.679	805.0	0.2859	19.925	855.0	0.2857
20	15.853	793.6	0.2600	18.174	781.6	0.2748	18.386	807.2	0.2747
21	14.071	764.6	0.2516	16.162	756.7	0.2661	16.340	762.1	0.2660
22	11.721	725.9	0.2446	13.472	721.5	0.2588	13.612	714.7	0.2587
23	5.047	628.1	0.2399	5.810	627.6	0.2541	5.870	624.0	0.2540
24	2.926	597.2	0.2365	3.338	596.9	0.2498	3.371	595.6	0.2498

Table 4-50. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E9

	Assembly Number E9								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.715	647.1	0.7396	5.357	630.0	0.7396	5.877	622.6	0.7396
2	17.254	907.7	0.7396	19.363	819.3	0.7396	21.014	780.6	0.7396
3	22.932	948.2	0.7356	25.559	843.6	0.7364	27.590	797.0	0.7371
4	25.660	985.7	0.7023	28.519	874.2	0.7042	30.725	821.1	0.7061
5	26.698	993.4	0.6581	29.687	891.9	0.6614	31.999	836.0	0.6649
6	27.093	990.0	0.6114	30.167	903.6	0.6157	32.558	847.4	0.6204
7	27.311	984.2	0.5666	30.443	911.7	0.5715	32.902	857.3	0.5771
8	27.500	980.4	0.5255	30.676	918.0	0.5305	33.204	867.4	0.5367
9	28.289	988.5	0.4880	31.556	930.9	0.4927	34.196	884.2	0.4991
10	28.259	984.0	0.4541	31.533	932.0	0.4586	34.227	892.4	0.4650
11	28.100	977.3	0.4244	31.356	929.4	0.4286	34.088	898.2	0.4347
12	27.856	968.8	0.3983	31.083	925.2	0.4021	33.841	902.2	0.4080
13	27.551	959.1	0.3752	30.752	921.5	0.3788	33.528	905.0	0.3845
14	27.161	948.2	0.3549	30.347	919.4	0.3583	33.132	906.4	0.3636
15	26.635	935.6	0.3369	29.810	917.8	0.3402	32.593	906.1	0.3452
16	25.892	920.8	0.3213	29.046	914.8	0.3243	31.811	903.3	0.3289
17	24.698	903.9	0.3081	27.808	908.7	0.3109	30.541	898.4	0.3151
18	23.617	880.8	0.2957	26.621	893.9	0.2982	29.276	886.5	0.3021
19	22.404	851.4	0.2841	25.235	870.4	0.2865	27.759	866.8	0.2902
20	20.556	808.7	0.2734	23.081	830.5	0.2756	25.360	831.3	0.2792
21	18.185	766.2	0.2649	20.369	788.2	0.2671	22.370	792.9	0.2704
22	15.069	718.5	0.2578	16.810	736.5	0.2599	18.427	742.8	0.2630
23	6.500	626.0	0.2533	7.259	633.4	0.2553	7.977	637.2	0.2585
24	3.716	596.5	0.2493	4.126	599.9	0.2514	4.513	601.8	0.2546

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.154	613.3	0.7396	6.599	617.2	0.7396	7.380	641.5	0.7396
2	21.866	738.7	0.7396	23.241	754.0	0.7396	25.553	831.5	0.7396
3	28.615	746.9	0.7378	30.354	774.7	0.7387	33.181	850.6	0.7389
4	31.819	761.1	0.7076	33.786	807.7	0.7096	36.867	882.7	0.7104
5	33.138	770.6	0.6673	35.278	833.6	0.6708	38.500	901.1	0.6722
6	33.746	781.0	0.6239	36.027	855.4	0.6286	39.328	911.5	0.6303
7	34.149	793.7	0.5815	36.549	874.2	0.5870	39.897	917.8	0.5888
8	34.519	808.6	0.5418	37.028	891.9	0.5474	40.411	922.5	0.5492
9	35.608	830.4	0.5046	38.245	913.1	0.5103	41.705	933.0	0.5118
10	35.706	845.8	0.4708	38.395	921.9	0.4760	41.866	934.5	0.4774
11	35.623	858.9	0.4405	38.330	924.9	0.4454	41.790	933.0	0.4466
12	35.425	870.6	0.4137	38.130	924.6	0.4181	41.566	929.7	0.4192
13	35.153	880.5	0.3900	37.838	921.2	0.3940	41.233	924.2	0.3949
14	34.794	889.5	0.3689	37.449	916.1	0.3725	40.794	917.4	0.3734
15	34.288	897.6	0.3502	36.904	909.6	0.3535	40.194	910.1	0.3544
16	33.533	904.3	0.3337	36.101	901.6	0.3369	39.329	901.9	0.3376
17	32.283	909.3	0.3197	34.790	891.5	0.3226	37.947	892.6	0.3232
18	31.008	906.8	0.3065	33.412	874.9	0.3092	36.454	877.7	0.3098
19	29.438	893.7	0.2943	31.687	850.4	0.2969	34.559	856.2	0.2974
20	26.905	861.3	0.2830	28.899	811.6	0.2855	31.478	820.4	0.2861
21	23.748	822.7	0.2741	25.455	770.2	0.2764	27.695	781.0	0.2770
22	19.553	767.8	0.2665	20.902	721.6	0.2687	22.695	731.9	0.2694
23	8.482	647.6	0.2620	9.091	630.1	0.2643	9.921	636.1	0.2649
24	4.785	607.1	0.2580	5.114	598.2	0.2603	5.573	602.3	0.2612

Table 4-51. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E10

	Assembly Number E10								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.901	620.3	0.7396	2.974	643.8	0.7396
2	0.000		0.7396	3.424	820.5	0.7396	11.113	927.6	0.7396
3	0.000		0.7316	4.896	897.1	0.7383	15.062	999.9	0.7295
4	0.000		0.6617	5.961	993.2	0.7051	17.045	1053.7	0.6877
5	0.000		0.5896	6.685	1064.8	0.6559	17.854	1058.8	0.6335
6	0.000	Data Not	0.5260	7.214	1120.6	0.5981	18.236	1050.0	0.5775
7	0.000	Required	0.4747	7.574	1160.2	0.5394	18.485	1043.3	0.5256
8	0.000		0.4337	7.752	1180.4	0.4852	18.667	1043.6	0.4798
9	0.000		0.3997	7.956	1203.9	0.4378	19.238	1065.7	0.4401
10	0.000		0.3713	7.769	1182.3	0.3978	19.212	1075.5	0.4056
11	0.000		0.3476	7.486	1150.4	0.3648	19.099	1086.0	0.3763
12	0.000		0.3279	7.149	1113.6	0.3377	18.909	1095.2	0.3512
13	0.000		0.3114	6.788	1075.4	0.3153	18.657	1102.1	0.3294
14	0.000		0.2972	6.414	1037.4	0.2965	18.336	1105.4	0.3104
15	0.000		0.2851	6.025	999.3	0.2807	17.923	1103.9	0.2936
16	0.000		0.2749	5.603	959.7	0.2673	17.359	1095.0	0.2789
17	0.000		0.2663	5.016	907.4	0.2560	16.416	1072.9	0.2660
18	0.000		0.2592	4.677	878.6	0.2465	15.701	1050.1	0.2541
19	0.000		0.2530	4.418	857.2	0.2381	14.976	1022.5	0.2432
20	0.000		0.2476	4.139	834.8	0.2305	13.927	978.6	0.2333
21	0.000		0.2430	3.691	800.1	0.2240	12.430	922.1	0.2251
22	0.000		0.2389	3.138	759.3	0.2185	10.461	851.2	0.2183
23	0.000		0.2363	1.335	639.9	0.2148	4.570	676.5	0.2140
24	0.000		0.2350	0.818	609.0	0.2133	2.715	627.2	0.2116

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.791	629.9	0.7396	4.459	626.7	0.7396	4.517	629.8	0.7396
2	14.022	844.3	0.7396	16.336	821.3	0.7396	16.538	836.8	0.7396
3	18.796	883.4	0.7314	21.785	858.6	0.7326	22.053	887.6	0.7327
4	21.167	925.8	0.6925	24.503	901.7	0.6959	24.814	955.0	0.6961
5	22.137	944.0	0.6417	25.630	922.0	0.6475	25.966	996.7	0.6478
6	22.565	949.3	0.5882	26.112	929.1	0.5959	26.458	1014.0	0.5962
7	22.813	949.2	0.5377	26.362	929.3	0.5465	26.711	1019.2	0.5467
8	22.989	948.5	0.4923	26.525	927.6	0.5014	26.874	1019.2	0.5017
9	23.653	959.2	0.4525	27.249	935.5	0.4615	27.603	1028.0	0.4617
10	23.614	957.7	0.4177	27.196	933.7	0.4266	27.547	1022.7	0.4268
11	23.469	954.0	0.3879	27.027	930.5	0.3966	27.371	1010.5	0.3968
12	23.237	949.2	0.3623	26.770	927.2	0.3707	27.106	996.7	0.3709
13	22.938	943.8	0.3401	26.450	924.5	0.3483	26.776	979.8	0.3484
14	22.563	937.6	0.3206	26.056	922.0	0.3285	26.371	961.6	0.3286
15	22.079	929.6	0.3035	25.544	918.3	0.3111	25.848	943.7	0.3112
16	21.417	918.6	0.2884	24.829	911.5	0.2957	25.120	923.0	0.2959
17	20.347	904.6	0.2753	23.677	901.0	0.2825	23.955	902.8	0.2826
18	19.468	886.9	0.2632	22.673	885.2	0.2701	22.935	878.6	0.2702
19	18.537	865.1	0.2521	21.574	864.4	0.2588	21.814	846.4	0.2589
20	17.138	829.4	0.2420	19.882	829.5	0.2484	20.091	803.1	0.2486
21	15.248	791.2	0.2336	17.663	792.0	0.2399	17.840	760.8	0.2401
22	12.760	743.4	0.2266	14.735	744.5	0.2328	14.875	714.7	0.2330
23	5.580	636.6	0.2223	6.459	638.0	0.2285	6.521	626.1	0.2287
24	3.272	602.4	0.2195	3.758	603.3	0.2255	3.792	596.6	0.2257

Table 4-51. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E10

	Assembly Number E10								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.231	645.4	0.7396	5.924	636.0	0.7396	6.480	627.2	0.7396
2	18.881	883.4	0.7396	21.078	832.1	0.7396	22.787	789.6	0.7396
3	24.975	916.7	0.7332	27.695	855.7	0.7340	29.795	806.4	0.7347
4	27.969	953.1	0.6972	30.944	889.9	0.6992	33.229	832.2	0.7012
5	29.206	966.8	0.6497	32.335	911.3	0.6531	34.726	847.4	0.6566
6	29.720	970.4	0.5986	32.951	925.8	0.6033	35.418	858.4	0.6081
7	29.974	970.6	0.5493	33.278	936.3	0.5548	35.812	868.3	0.5607
8	30.144	971.7	0.5043	33.504	944.4	0.5100	36.110	879.1	0.5167
9	30.944	983.4	0.4643	34.403	959.0	0.4698	37.123	896.4	0.4769
10	30.881	982.2	0.4293	34.351	960.6	0.4346	37.131	905.6	0.4416
11	30.667	976.0	0.3991	34.112	956.9	0.4042	36.930	911.6	0.4110
12	30.348	967.2	0.3732	33.747	950.1	0.3779	36.589	915.3	0.3845
13	29.953	956.7	0.3505	33.298	942.2	0.3549	36.157	918.0	0.3614
14	29.477	945.4	0.3307	32.761	933.4	0.3349	35.627	919.1	0.3410
15	28.876	933.1	0.3132	32.094	923.9	0.3172	34.955	918.3	0.3230
16	28.060	919.4	0.2977	31.205	913.6	0.3016	34.045	915.0	0.3071
17	26.794	904.0	0.2844	29.853	901.5	0.2881	32.654	908.9	0.2934
18	25.628	882.3	0.2720	28.553	883.1	0.2756	31.269	895.8	0.2806
19	24.311	853.9	0.2607	27.042	857.2	0.2642	29.615	874.1	0.2690
20	22.284	811.8	0.2505	24.704	817.2	0.2538	27.018	836.3	0.2583
21	19.711	769.6	0.2420	21.793	776.0	0.2453	23.814	795.6	0.2496
22	16.359	721.7	0.2349	18.018	727.3	0.2381	19.646	744.2	0.2423
23	7.179	628.9	0.2308	7.920	631.6	0.2340	8.658	639.4	0.2382
24	4.153	598.1	0.2278	4.558	599.4	0.2309	4.959	603.2	0.2350

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.774	616.7	0.7396	6.934	579.5	0.7396	7.284	595.0	0.7396
2	23.665	744.9	0.7396	24.157	623.6	0.7396	25.175	668.3	0.7396
3	30.853	753.7	0.7355	31.461	630.0	0.7359	32.661	671.5	0.7366
4	34.361	769.1	0.7027	35.030	637.1	0.7037	36.298	678.2	0.7055
5	35.904	778.8	0.6592	36.621	642.8	0.6611	37.935	682.7	0.6642
6	36.646	789.6	0.6117	37.409	648.2	0.6147	38.775	687.9	0.6194
7	37.101	802.9	0.5652	37.914	654.2	0.5692	39.343	694.2	0.5756
8	37.475	819.8	0.5219	38.344	661.0	0.5271	39.839	700.9	0.5349
9	38.590	843.0	0.4826	39.530	669.6	0.4890	41.116	710.3	0.4979
10	38.671	860.1	0.4477	39.668	676.6	0.4553	41.317	716.8	0.4651
11	38.535	875.6	0.4172	39.582	682.8	0.4259	41.282	722.1	0.4365
12	38.250	889.2	0.3905	39.342	688.5	0.4002	41.083	726.4	0.4113
13	37.867	901.3	0.3672	39.004	694.2	0.3777	40.777	729.8	0.3892
14	37.382	912.6	0.3466	38.587	702.8	0.3580	40.387	732.7	0.3697
15	36.748	922.2	0.3284	38.122	724.9	0.3414	39.950	735.7	0.3532
16	35.868	929.9	0.3123	37.540	765.3	0.3279	39.447	744.1	0.3402
17	34.496	934.7	0.2984	36.419	801.2	0.3159	38.537	767.3	0.3299
18	33.091	929.6	0.2854	35.084	811.5	0.3031	37.280	776.0	0.3175
19	31.374	913.6	0.2735	33.357	810.0	0.2908	35.521	772.4	0.3050
20	28.626	876.4	0.2626	30.442	785.7	0.2789	32.458	756.0	0.2927
21	25.238	833.2	0.2537	26.825	753.6	0.2690	28.640	734.3	0.2825
22	20.803	774.4	0.2462	22.054	708.8	0.2602	23.528	698.8	0.2730
23	9.187	651.9	0.2421	9.717	621.0	0.2552	10.366	619.5	0.2678
24	5.246	609.7	0.2387	5.509	590.8	0.2501	5.839	590.8	0.2614

Table 4-52. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E11

	Assembly Number E11								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.827	615.1	0.7396	2.637	632.6	0.7396
2	0.000		0.7396	3.173	798.4	0.7396	10.123	884.9	0.7396
3	0.000		0.7396	4.584	929.8	0.7396	14.101	1041.4	0.7343
4	0.000		0.7134	5.584	958.0	0.7111	16.157	1023.4	0.6978
5	0.000		0.6564	6.174	1013.7	0.6671	16.872	1030.7	0.6488
6	0.000	Data Not	0.6010	6.492	1045.2	0.6161	17.014	1020.4	0.5969
7	0.000	Required	0.5505	6.640	1060.2	0.5648	16.994	1010.7	0.5483
8	0.000		0.5072	6.679	1064.2	0.5171	16.964	1006.7	0.5053
9	0.000		0.4698	6.828	1079.6	0.4739	17.360	1021.0	0.4672
10	0.000		0.4378	6.680	1064.3	0.4357	17.239	1022.6	0.4335
11	0.000		0.4108	6.480	1044.0	0.4034	17.062	1023.9	0.4044
12	0.000		0.3880	6.269	1023.0	0.3761	16.853	1024.0	0.3791
13	0.000		0.3687	6.065	1003.2	0.3529	16.628	1022.8	0.3571
14	0.000		0.3521	5.846	982.3	0.3329	16.357	1019.8	0.3375
15	0.000		0.3381	5.572	956.9	0.3154	15.980	1013.8	0.3201
16	0.000		0.3261	5.200	923.4	0.3002	15.406	1002.2	0.3049
17	0.000		0.3162	4.614	873.3	0.2874	14.401	978.6	0.2919
18	0.000		0.3080	4.253	843.9	0.2766	13.645	956.9	0.2799
19	0.000		0.3009	3.967	821.3	0.2673	12.909	932.8	0.2691
20	0.000		0.2946	3.674	798.8	0.2590	11.941	897.8	0.2592
21	0.000		0.2893	3.230	765.9	0.2520	10.521	849.7	0.2510
22	0.000		0.2849	2.701	728.5	0.2462	8.712	790.7	0.2442
23	0.000		0.2822	1.134	627.7	0.2423	3.720	652.2	0.2396
24	0.000		0.2808	0.679	600.8	0.2408	2.161	612.6	0.2372

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.474	631.7	0.7396	4.155	628.1	0.7396	4.179	587.6	0.7396
2	13.145	857.5	0.7396	15.497	826.4	0.7396	15.582	665.0	0.7396
3	17.912	891.6	0.7350	20.852	852.7	0.7358	20.966	684.0	0.7359
4	20.280	925.9	0.7004	23.468	883.1	0.7028	23.600	705.1	0.7031
5	21.110	938.9	0.6538	24.405	896.5	0.6583	24.550	720.8	0.6589
6	21.291	943.3	0.6038	24.637	903.0	0.6102	24.794	735.6	0.6111
7	21.282	944.6	0.5563	24.650	905.8	0.5638	24.821	753.2	0.5650
8	21.257	945.1	0.5133	24.638	907.5	0.5212	24.828	777.7	0.5227
9	21.754	956.8	0.4750	25.214	917.7	0.4828	25.452	843.5	0.4847
10	21.623	955.6	0.4409	25.083	917.7	0.4487	25.432	1019.2	0.4512
11	21.420	952.6	0.4113	24.871	916.5	0.4188	25.261	1093.6	0.4212
12	21.177	948.7	0.3856	24.611	914.3	0.3928	24.999	1089.9	0.3948
13	20.910	943.9	0.3630	24.326	912.0	0.3699	24.701	1065.8	0.3715
14	20.589	938.2	0.3431	23.985	909.4	0.3497	24.343	1035.1	0.3510
15	20.156	931.8	0.3254	23.526	906.1	0.3317	23.866	1003.6	0.3329
16	19.514	924.2	0.3099	22.850	901.7	0.3159	23.170	969.8	0.3169
17	18.425	914.9	0.2965	21.716	896.0	0.3024	22.016	937.3	0.3032
18	17.529	899.5	0.2844	20.724	883.9	0.2899	21.003	904.3	0.2906
19	16.587	877.4	0.2732	19.630	865.2	0.2786	19.885	868.2	0.2792
20	15.252	839.5	0.2632	18.009	831.0	0.2683	18.230	819.6	0.2689
21	13.429	799.8	0.2550	15.871	795.0	0.2599	16.059	775.1	0.2604
22	11.083	749.9	0.2481	13.092	748.1	0.2529	13.240	724.5	0.2534
23	4.721	635.9	0.2435	5.588	637.0	0.2484	5.650	626.1	0.2489
24	2.713	602.0	0.2410	3.191	602.6	0.2458	3.224	595.6	0.2462

Table 4-52. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E11

	Assembly Number E11								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.744	626.6	0.7396	5.136	601.7	0.7396	5.498	602.8	0.7396
2	17.490	813.5	0.7396	18.779	708.5	0.7396	19.939	708.4	0.7396
3	23.354	838.6	0.7364	24.943	719.6	0.7371	26.385	721.0	0.7378
4	26.216	871.0	0.7044	27.931	733.6	0.7061	29.572	745.8	0.7082
5	27.252	883.6	0.6613	29.049	742.8	0.6645	30.814	761.7	0.6684
6	27.554	892.2	0.6147	29.429	751.8	0.6196	31.287	773.8	0.6253
7	27.696	909.5	0.5697	29.646	760.4	0.5763	31.588	785.0	0.5835
8	27.760	918.2	0.5279	29.790	769.8	0.5361	31.823	797.2	0.5445
9	28.455	929.2	0.4898	30.595	782.9	0.4993	32.760	815.3	0.5085
10	28.419	926.7	0.4559	30.612	789.3	0.4665	32.870	828.4	0.4762
11	28.222	922.7	0.4258	30.446	793.0	0.4371	32.764	836.9	0.4470
12	27.957	922.2	0.3995	30.202	795.6	0.4113	32.559	842.5	0.4211
13	27.737	934.3	0.3770	30.016	799.7	0.3893	32.424	849.8	0.3989
14	27.368	932.6	0.3562	29.799	818.6	0.3698	32.333	868.3	0.3798
15	26.824	922.2	0.3375	29.665	871.8	0.3542	32.226	872.3	0.3635
16	26.040	908.7	0.3211	29.128	905.6	0.3386	31.677	870.5	0.3473
17	24.781	892.9	0.3070	27.909	911.2	0.3239	30.446	868.8	0.3321
18	23.623	871.6	0.2941	26.689	902.5	0.3099	29.176	861.4	0.3176
19	22.320	845.1	0.2825	25.287	888.9	0.2974	27.674	846.8	0.3046
20	20.381	806.2	0.2719	23.067	851.3	0.2857	25.247	817.4	0.2926
21	17.905	766.4	0.2633	20.251	808.0	0.2761	22.192	784.8	0.2828
22	14.704	719.3	0.2562	16.573	751.1	0.2680	18.155	738.4	0.2744
23	6.272	625.1	0.2517	7.062	636.4	0.2629	7.754	634.3	0.2693
24	3.558	595.4	0.2489	3.969	600.0	0.2592	4.336	599.7	0.2653

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.735	605.2	0.7396	6.171	616.0	0.7396	6.967	643.2	0.7396
2	20.671	711.0	0.7396	22.049	754.5	0.7396	24.466	846.1	0.7396
3	27.258	716.5	0.7384	29.028	779.1	0.7392	32.041	874.0	0.7392
4	30.494	726.1	0.7096	32.521	816.6	0.7115	35.848	915.0	0.7117
5	31.775	733.9	0.6708	34.006	847.6	0.6741	37.509	938.9	0.6744
6	32.295	743.4	0.6289	34.692	873.7	0.6332	38.282	951.0	0.6334
7	32.654	755.3	0.5881	35.185	895.5	0.5930	38.806	955.3	0.5928
8	32.958	769.7	0.5500	35.608	915.3	0.5550	39.247	957.8	0.5542
9	33.992	790.4	0.5146	36.780	938.8	0.5192	40.481	966.6	0.5181
10	34.169	805.1	0.4828	37.002	946.6	0.4866	40.689	964.6	0.4852
11	34.122	818.2	0.4537	36.964	948.2	0.4570	40.618	959.9	0.4553
12	33.965	829.1	0.4278	36.792	945.6	0.4305	40.395	952.8	0.4287
13	33.865	837.1	0.4054	36.651	938.5	0.4075	40.178	942.2	0.4056
14	33.798	842.6	0.3859	36.526	928.5	0.3876	39.963	929.9	0.3857
15	33.709	846.8	0.3691	36.366	916.4	0.3704	39.700	916.0	0.3684
16	33.186	852.8	0.3527	35.774	904.9	0.3537	39.014	903.4	0.3517
17	31.983	859.4	0.3374	34.503	893.7	0.3383	37.651	891.4	0.3364
18	30.720	861.1	0.3228	33.132	876.1	0.3237	36.145	874.0	0.3219
19	29.191	854.7	0.3097	31.441	850.5	0.3106	34.263	850.0	0.3090
20	26.663	831.3	0.2976	28.655	811.4	0.2984	31.172	813.1	0.2970
21	23.475	801.6	0.2877	25.182	770.2	0.2885	27.354	773.3	0.2873
22	19.216	754.3	0.2791	20.569	722.1	0.2801	22.304	725.8	0.2790
23	8.226	641.8	0.2741	8.836	630.2	0.2751	9.637	633.4	0.2741
24	4.586	603.4	0.2699	4.919	598.6	0.2710	5.365	601.1	0.2702

Table 4-53. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E12

	Assembly Number E12								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.864	617.7	0.7396	2.851	640.1	0.7396
2	0.000		0.7396	3.303	809.7	0.7396	10.741	912.9	0.7396
3	0.000		0.7396	4.739	945.4	0.7381	14.670	986.6	0.7311
4	0.000		0.6892	5.765	974.7	0.7047	16.657	1042.2	0.6909
5	0.000		0.6236	6.416	1037.6	0.6564	17.416	1048.6	0.6385
6	0.000	Data Not	0.5622	6.821	1078.9	0.6024	17.695	1041.1	0.5841
7	0.000	Required	0.5100	7.061	1104.1	0.5491	17.859	1036.6	0.5337
8	0.000		0.4669	7.168	1115.6	0.4999	17.999	1038.6	0.4893
9	0.000		0.4307	7.364	1136.9	0.4557	18.554	1060.1	0.4501
10	0.000		0.3999	7.225	1121.8	0.4168	18.524	1066.7	0.4158
11	0.000		0.3743	7.019	1099.7	0.3843	18.409	1072.3	0.3864
12	0.000		0.3529	6.798	1076.5	0.3571	18.248	1076.0	0.3611
13	0.000		0.3348	6.605	1056.6	0.3342	18.077	1077.3	0.3391
14	0.000		0.3195	6.403	1036.3	0.3145	17.866	1076.8	0.3196
15	0.000		0.3064	6.132	1009.6	0.2973	17.537	1073.2	0.3024
16	0.000		0.2954	5.733	971.7	0.2822	16.989	1064.1	0.2871
17	0.000		0.2862	5.104	915.0	0.2693	16.001	1042.5	0.2739
18	0.000		0.2785	4.706	881.0	0.2586	15.217	1019.8	0.2619
19	0.000		0.2719	4.383	854.3	0.2492	14.412	992.2	0.2511
20	0.000		0.2661	4.049	827.7	0.2410	13.299	949.2	0.2413
21	0.000		0.2613	3.563	790.4	0.2341	11.757	894.1	0.2332
22	0.000		0.2573	2.988	748.6	0.2284	9.791	826.7	0.2265
23	0.000		0.2548	1.251	634.8	0.2245	4.212	666.1	0.2220
24	0.000		0.2535	0.758	605.4	0.2229	2.479	621.0	0.2197

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.752	637.5	0.7396	4.443	629.1	0.7396	4.505	634.9	0.7396
2	13.948	879.5	0.7396	16.336	831.2	0.7396	16.547	851.5	0.7396
3	18.755	921.6	0.7319	21.822	868.1	0.7330	22.094	893.6	0.7331
4	21.120	964.8	0.6937	24.528	911.0	0.6966	24.834	946.9	0.6969
5	22.009	980.2	0.6434	25.577	931.8	0.6486	25.901	976.5	0.6488
6	22.305	982.2	0.5905	25.939	940.6	0.5973	26.273	993.3	0.5976
7	22.444	979.2	0.5407	26.093	942.6	0.5483	26.434	1005.3	0.5486
8	22.560	976.4	0.4961	26.208	942.5	0.5039	26.553	1012.2	0.5042
9	23.198	986.3	0.4567	26.916	951.9	0.4643	27.273	1033.3	0.4646
10	23.146	983.7	0.4222	26.857	950.9	0.4296	27.215	1035.1	0.4298
11	22.995	979.4	0.3926	26.687	948.4	0.3996	27.040	1026.2	0.3997
12	22.789	974.0	0.3670	26.461	945.7	0.3737	26.807	1014.0	0.3739
13	22.567	968.0	0.3446	26.221	943.3	0.3511	26.558	998.4	0.3511
14	22.298	961.2	0.3249	25.936	941.1	0.3311	26.263	981.5	0.3312
15	21.903	953.6	0.3075	25.518	938.1	0.3134	25.834	963.2	0.3135
16	21.268	943.5	0.2920	24.842	932.6	0.2978	25.147	945.3	0.2979
17	20.173	931.4	0.2787	23.681	923.9	0.2843	23.974	926.1	0.2844
18	19.238	914.5	0.2666	22.634	909.4	0.2719	22.911	901.2	0.2720
19	18.231	892.5	0.2557	21.465	888.8	0.2608	21.720	868.2	0.2609
20	16.756	854.4	0.2458	19.691	852.1	0.2507	19.913	821.0	0.2508
21	14.803	813.1	0.2377	17.400	812.5	0.2425	17.587	773.8	0.2425
22	12.291	761.6	0.2309	14.428	761.7	0.2356	14.575	723.2	0.2357
23	5.310	643.4	0.2266	6.262	644.7	0.2313	6.327	629.3	0.2315
24	3.091	606.5	0.2241	3.621	607.1	0.2287	3.657	598.7	0.2289

Table 4-53. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E12

	Assembly Number E12								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.199	642.9	0.7396	5.971	645.2	0.7396	6.584	634.6	0.7396
2	18.840	875.1	0.7396	21.310	872.8	0.7396	23.214	820.2	0.7396
3	24.982	911.5	0.7336	28.079	906.8	0.7339	30.439	842.9	0.7342
4	27.991	953.5	0.6979	31.414	953.7	0.6989	33.991	874.7	0.6998
5	29.185	974.0	0.6506	32.800	982.5	0.6523	35.482	890.6	0.6540
6	29.620	984.4	0.5998	33.342	998.9	0.6017	36.074	898.2	0.6043
7	29.816	990.2	0.5508	33.592	1007.3	0.5526	36.351	902.4	0.5559
8	29.969	995.9	0.5061	33.775	1012.0	0.5077	36.564	907.0	0.5114
9	30.782	1011.6	0.4662	34.668	1024.7	0.4675	37.547	921.1	0.4718
10	30.725	1011.7	0.4312	34.591	1021.5	0.4322	37.547	933.4	0.4371
11	30.514	1005.6	0.4010	34.324	1012.7	0.4018	37.323	940.3	0.4069
12	30.221	995.5	0.3748	33.956	1000.9	0.3756	37.029	952.3	0.3809
13	29.900	983.5	0.3521	33.549	987.7	0.3527	36.733	970.7	0.3582
14	29.526	970.6	0.3320	33.082	973.5	0.3325	36.399	993.2	0.3382
15	29.014	957.2	0.3142	32.473	959.0	0.3148	35.795	994.0	0.3199
16	28.238	943.0	0.2986	31.592	943.5	0.2991	34.856	984.2	0.3036
17	26.966	927.5	0.2850	30.203	926.6	0.2855	33.384	970.2	0.2896
18	25.754	904.6	0.2727	28.820	902.5	0.2732	31.862	947.3	0.2768
19	24.351	873.2	0.2616	27.184	870.7	0.2621	30.026	915.3	0.2653
20	22.213	826.4	0.2516	24.694	824.9	0.2522	27.213	866.1	0.2551
21	19.539	780.0	0.2434	21.650	779.4	0.2441	23.818	815.8	0.2467
22	16.119	728.9	0.2366	17.792	728.9	0.2374	19.524	757.4	0.2399
23	7.011	631.7	0.2325	7.761	632.5	0.2333	8.548	644.8	0.2358
24	4.035	599.9	0.2299	4.449	600.3	0.2308	4.883	606.7	0.2332

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.935	628.4	0.7396	7.301	606.6	0.7396	7.737	604.1	0.7396
2	24.263	786.4	0.7396	25.363	711.2	0.7396	26.617	695.9	0.7396
3	31.703	797.4	0.7346	33.071	724.1	0.7355	34.555	699.8	0.7363
4	35.336	815.3	0.7008	36.843	742.6	0.7030	38.414	708.7	0.7050
5	36.869	824.7	0.6559	38.466	754.9	0.6597	40.097	714.9	0.6633
6	37.501	833.8	0.6070	39.170	764.9	0.6124	40.869	722.0	0.6180
7	37.827	845.1	0.5593	39.561	774.0	0.5661	41.336	730.0	0.5735
8	38.098	858.7	0.5155	39.893	782.7	0.5234	41.750	738.8	0.5322
9	39.166	879.0	0.4761	41.045	794.8	0.4847	43.011	750.5	0.4946
10	39.222	892.7	0.4415	41.144	801.0	0.4506	43.177	757.9	0.4612
11	39.048	905.0	0.4114	40.997	805.0	0.4206	43.080	763.4	0.4318
12	38.818	921.2	0.3854	40.781	807.1	0.3945	42.897	767.1	0.4058
13	38.636	950.6	0.3630	40.607	808.2	0.3718	42.739	768.9	0.3830
14	38.358	965.5	0.3427	40.348	811.1	0.3514	42.494	770.4	0.3623
15	37.809	980.3	0.3242	39.841	817.3	0.3329	42.009	772.9	0.3437
16	36.983	1011.5	0.3080	39.064	824.6	0.3167	41.263	776.4	0.3275
17	35.545	1021.1	0.2937	37.666	830.7	0.3024	39.908	781.2	0.3133
18	33.984	1010.1	0.2805	36.094	829.0	0.2891	38.352	783.1	0.3000
19	32.051	983.3	0.2687	34.079	816.7	0.2770	36.302	779.1	0.2879
20	29.043	931.7	0.2581	30.880	788.7	0.2662	32.957	762.7	0.2770
21	25.419	874.7	0.2495	27.016	754.9	0.2573	28.886	740.2	0.2680
22	20.817	803.8	0.2424	22.079	710.2	0.2498	23.596	703.2	0.2602
23	9.143	663.9	0.2384	9.699	624.0	0.2456	10.378	622.2	0.2559
24	5.211	616.7	0.2356	5.499	593.6	0.2422	5.850	592.7	0.2518

Table 4-54. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E13

	Assembly Number E13								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.707	606.7	0.7396	2.156	617.4	0.7396
2	0.000		0.7396	2.713	759.2	0.7396	8.260	808.7	0.7396
3	0.000		0.7396	3.893	863.2	0.7396	11.621	929.9	0.7396
4	0.000		0.7269	4.734	883.3	0.7229	13.494	923.2	0.7172
5	0.000		0.6782	5.266	929.3	0.6892	14.310	938.2	0.6810
6	0.000	Data Not	0.6272	5.586	958.1	0.6477	14.653	939.4	0.6386
7	0.000	Required	0.5788	5.764	974.6	0.6037	14.843	940.0	0.5949
8	0.000		0.5357	5.843	982.0	0.5607	14.992	943.8	0.5533
9	0.000		0.4977	6.026	999.4	0.5198	15.495	961.1	0.5148
10	0.000		0.4646	5.935	990.7	0.4816	15.472	964.8	0.4798
11	0.000		0.4363	5.801	978.1	0.4482	15.379	967.0	0.4489
12	0.000		0.4122	5.673	966.2	0.4193	15.264	967.8	0.4218
13	0.000		0.3918	5.585	958.1	0.3947	15.162	967.0	0.3978
14	0.000		0.3742	5.495	949.8	0.3729	15.040	965.2	0.3765
15	0.000		0.3592	5.326	934.6	0.3532	14.806	961.7	0.3572
16	0.000		0.3464	5.017	907.5	0.3355	14.349	953.6	0.3400
17	0.000		0.3358	4.476	861.9	0.3204	13.443	934.1	0.3252
18	0.000		0.3269	4.138	834.7	0.3078	12.776	916.8	0.3118
19	0.000		0.3192	3.861	813.1	0.2968	12.119	897.3	0.2998
20	0.000		0.3125	3.574	791.3	0.2872	11.252	868.4	0.2889
21	0.000		0.3066	3.147	759.9	0.2790	9.965	827.4	0.2797
22	0.000		0.3019	2.635	724.0	0.2723	8.304	775.6	0.2720
23	0.000		0.2990	1.095	625.4	0.2678	3.531	646.7	0.2671
24	0.000		0.2975	0.649	599.1	0.2659	2.036	609.2	0.2644

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.130	644.2	0.7396	3.966	644.6	0.7396	4.010	612.2	0.7396
2	11.810	921.6	0.7396	14.716	903.1	0.7396	14.865	754.8	0.7396
3	16.090	1043.7	0.7389	19.732	941.7	0.7377	19.926	783.0	0.7378
4	18.262	1001.3	0.7113	22.199	982.0	0.7089	22.422	822.4	0.7093
5	19.098	1003.7	0.6727	23.124	994.5	0.6694	23.367	850.7	0.6699
6	19.369	995.0	0.6287	23.389	993.6	0.6244	23.649	875.6	0.6251
7	19.480	985.5	0.5840	23.461	988.1	0.5792	23.736	898.2	0.5800
8	19.588	980.6	0.5420	23.536	983.5	0.5368	23.827	923.0	0.5377
9	20.190	992.4	0.5036	24.208	993.3	0.4983	24.517	951.8	0.4991
10	20.175	993.4	0.4688	24.188	992.6	0.4635	24.505	964.9	0.4642
11	20.096	995.1	0.4380	24.111	992.9	0.4328	24.429	966.5	0.4335
12	20.000	997.4	0.4110	24.022	993.9	0.4058	24.337	961.6	0.4064
13	19.928	1001.0	0.3871	23.961	995.5	0.3819	24.269	950.1	0.3824
14	19.846	1005.9	0.3657	23.893	997.5	0.3606	24.192	935.7	0.3610
15	19.654	1011.1	0.3463	23.715	999.4	0.3412	24.005	921.4	0.3416
16	19.219	1013.8	0.3289	23.287	1000.4	0.3237	23.566	904.3	0.3241
17	18.299	1012.1	0.3134	22.357	999.0	0.3081	22.624	886.1	0.3085
18	17.528	999.3	0.2998	21.510	988.3	0.2943	21.761	862.3	0.2946
19	16.666	974.7	0.2876	20.494	966.9	0.2820	20.724	832.2	0.2824
20	15.382	926.7	0.2770	18.880	922.6	0.2715	19.080	791.0	0.2718
21	13.629	875.9	0.2679	16.758	875.7	0.2624	16.929	753.2	0.2628
22	11.351	813.2	0.2604	13.978	815.9	0.2550	14.117	713.5	0.2553
23	4.859	661.5	0.2554	6.047	666.5	0.2498	6.111	628.2	0.2501
24	2.803	618.1	0.2529	3.492	621.0	0.2473	3.528	598.7	0.2477

Table 4-54. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E13

	Assembly Number E13								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.522	620.0	0.7396	5.146	628.0	0.7396	5.812	641.4	0.7396
2	16.574	783.1	0.7396	18.624	810.9	0.7396	20.763	858.6	0.7396
3	22.113	811.0	0.7389	24.761	846.3	0.7393	27.499	899.1	0.7390
4	24.888	849.5	0.7113	27.910	896.4	0.7123	30.972	950.5	0.7118
5	26.017	876.0	0.6733	29.294	932.4	0.6748	32.513	976.6	0.6740
6	26.439	896.7	0.6297	29.889	957.7	0.6314	33.160	985.3	0.6303
7	26.642	914.2	0.5852	30.202	974.1	0.5868	33.475	985.7	0.5853
8	26.836	930.1	0.5430	30.464	984.4	0.5441	33.733	985.0	0.5424
9	27.670	952.8	0.5041	31.400	1000.2	0.5046	34.724	994.4	0.5028
10	27.696	958.9	0.4686	31.423	999.7	0.4687	34.746	994.2	0.4669
11	27.616	958.3	0.4373	31.292	991.8	0.4371	34.600	991.6	0.4353
12	27.484	951.9	0.4097	31.085	980.3	0.4094	34.373	988.2	0.4075
13	27.356	942.3	0.3853	30.867	966.8	0.3849	34.126	983.3	0.3831
14	27.205	930.7	0.3636	30.616	951.9	0.3632	33.835	976.6	0.3614
15	26.933	917.6	0.3440	30.237	936.3	0.3436	33.401	967.4	0.3419
16	26.400	903.3	0.3265	29.589	919.8	0.3261	32.677	954.8	0.3246
17	25.351	887.3	0.3108	28.410	901.5	0.3106	31.402	939.2	0.3090
18	24.335	864.9	0.2969	27.213	876.8	0.2969	30.054	915.2	0.2954
19	23.095	836.2	0.2846	25.734	845.1	0.2847	28.365	882.8	0.2834
20	21.147	795.0	0.2740	23.439	801.3	0.2742	25.749	835.7	0.2730
21	18.688	755.4	0.2649	20.631	759.6	0.2653	22.604	789.1	0.2642
22	15.527	712.9	0.2575	17.078	715.4	0.2580	18.663	738.7	0.2570
23	6.753	627.2	0.2525	7.463	628.6	0.2531	8.202	639.5	0.2522
24	3.882	597.4	0.2500	4.279	598.7	0.2507	4.696	604.9	0.2498

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.239	644.2	0.7396	6.640	611.3	0.7396	7.321	630.5	0.7396
2	22.091	858.3	0.7396	23.319	730.8	0.7396	25.348	793.1	0.7396
3	29.146	885.8	0.7391	30.676	779.0	0.7396	33.169	856.8	0.7396
4	32.747	917.6	0.7119	34.453	770.1	0.7137	37.197	840.4	0.7148
5	34.324	926.8	0.6741	36.169	789.9	0.6771	39.097	863.2	0.6791
6	34.978	928.6	0.6306	36.956	809.3	0.6349	40.038	882.8	0.6377
7	35.303	931.1	0.5858	37.413	829.0	0.5912	40.623	899.5	0.5946
8	35.586	937.6	0.5429	37.829	849.4	0.5492	41.143	913.3	0.5527
9	36.646	955.7	0.5034	39.043	873.7	0.5100	42.488	931.0	0.5134
10	36.712	967.4	0.4674	39.193	887.3	0.4742	42.689	937.9	0.4774
11	36.606	978.1	0.4358	39.131	894.5	0.4423	42.645	940.4	0.4454
12	36.417	988.5	0.4080	38.956	896.8	0.4143	42.450	937.7	0.4170
13	36.205	998.2	0.3834	38.738	895.8	0.3894	42.189	931.8	0.3919
14	35.943	1006.2	0.3616	38.455	892.4	0.3672	41.848	923.9	0.3696
15	35.532	1012.7	0.3421	38.010	886.8	0.3474	41.337	915.0	0.3496
16	34.819	1015.8	0.3245	37.254	879.8	0.3296	40.509	905.4	0.3317
17	33.537	1013.8	0.3089	35.919	871.3	0.3139	39.096	895.2	0.3159
18	32.139	999.8	0.2951	34.428	856.6	0.2999	37.486	879.7	0.3019
19	30.346	971.4	0.2829	32.495	835.0	0.2876	35.381	857.9	0.2895
20	27.531	919.4	0.2725	29.447	800.2	0.2769	32.041	822.2	0.2788
21	24.157	863.2	0.2638	25.805	762.0	0.2679	28.058	782.5	0.2697
22	19.926	797.2	0.2565	21.228	715.4	0.2604	23.028	732.7	0.2623
23	8.800	664.4	0.2517	9.387	627.6	0.2556	10.223	636.7	0.2575
24	5.037	618.9	0.2493	5.352	596.6	0.2529	5.812	602.4	0.2548

Table 4-55. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E14

	Assembly Number E14								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.880	618.8	0.7396	2.970	644.6	0.7396
2	0.000		0.7396	3.360	814.8	0.7396	11.133	932.6	0.7396
3	0.000		0.7317	4.827	891.2	0.7388	15.122	1007.3	0.7292
4	0.000		0.6617	5.907	988.1	0.7061	17.128	1062.0	0.6869
5	0.000		0.5894	6.653	1061.5	0.6571	17.938	1065.9	0.6324
6	0.000	Data Not	0.5258	7.202	1119.3	0.5996	18.311	1055.2	0.5762
7	0.000	Required	0.4744	7.581	1161.0	0.5410	18.557	1047.2	0.5243
8	0.000		0.4332	7.777	1183.2	0.4865	18.748	1046.9	0.4785
9	0.000		0.3990	8.000	1209.0	0.4388	19.344	1069.5	0.4385
10	0.000		0.3705	7.827	1189.0	0.3983	19.347	1080.3	0.4037
11	0.000		0.3468	7.552	1157.8	0.3649	19.258	1091.8	0.3742
12	0.000		0.3269	7.219	1121.1	0.3376	19.086	1102.0	0.3490
13	0.000		0.3102	6.856	1082.5	0.3149	18.844	1109.6	0.3272
14	0.000		0.2960	6.473	1043.3	0.2960	18.525	1113.7	0.3082
15	0.000		0.2839	6.067	1003.3	0.2801	18.105	1112.8	0.2915
16	0.000		0.2735	5.619	961.2	0.2667	17.524	1104.4	0.2767
17	0.000		0.2649	5.002	906.2	0.2554	16.556	1082.4	0.2639
18	0.000		0.2577	4.636	875.1	0.2460	15.810	1059.1	0.2521
19	0.000		0.2515	4.357	852.2	0.2376	15.055	1030.7	0.2412
20	0.000		0.2461	4.068	829.2	0.2301	13.979	985.5	0.2313
21	0.000		0.2415	3.620	794.7	0.2237	12.463	927.5	0.2232
22	0.000		0.2373	3.073	754.6	0.2184	10.479	855.2	0.2165
23	0.000		0.2347	1.305	638.1	0.2147	4.574	677.8	0.2121
24	0.000		0.2334	0.799	607.8	0.2133	2.720	628.1	0.2098

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.699	621.9	0.7396	4.277	617.2	0.7396	4.326	618.4	0.7396
2	13.721	807.8	0.7396	15.698	777.8	0.7396	15.869	788.0	0.7396
3	18.386	834.7	0.7317	20.865	799.1	0.7337	21.089	823.7	0.7338
4	20.679	864.1	0.6931	23.391	825.8	0.6979	23.644	865.2	0.6982
5	21.616	877.4	0.6430	24.443	839.2	0.6510	24.713	890.6	0.6516
6	22.049	883.8	0.5906	24.939	846.7	0.6014	25.219	905.9	0.6021
7	22.330	887.5	0.5412	25.259	851.4	0.5539	25.546	916.7	0.5546
8	22.552	890.9	0.4965	25.513	855.2	0.5104	25.806	926.1	0.5112
9	23.259	902.9	0.4569	26.310	866.2	0.4711	26.616	946.9	0.4719
10	23.275	904.3	0.4220	26.343	868.2	0.4363	26.653	953.4	0.4370
11	23.184	904.1	0.3921	26.262	869.5	0.4061	26.572	953.4	0.4068
12	23.000	902.8	0.3663	26.083	870.1	0.3800	26.389	946.9	0.3806
13	22.737	900.5	0.3440	25.822	870.3	0.3573	26.121	935.7	0.3578
14	22.391	897.6	0.3244	25.476	870.3	0.3374	25.766	921.4	0.3379
15	21.931	893.2	0.3072	25.010	869.6	0.3198	25.289	904.3	0.3203
16	21.295	887.3	0.2919	24.355	867.3	0.3043	24.621	884.6	0.3047
17	20.256	879.8	0.2789	23.280	862.9	0.2910	23.533	865.2	0.2915
18	19.387	866.8	0.2667	22.329	852.9	0.2784	22.566	842.1	0.2789
19	18.451	848.1	0.2555	21.261	837.2	0.2668	21.479	815.4	0.2673
20	17.047	815.3	0.2451	19.603	807.8	0.2560	19.794	779.0	0.2564
21	15.172	780.9	0.2365	17.448	776.7	0.2472	17.611	743.0	0.2477
22	12.701	736.6	0.2294	14.581	734.7	0.2398	14.711	702.7	0.2402
23	5.537	633.0	0.2249	6.366	633.5	0.2353	6.422	619.7	0.2357
24	3.245	600.0	0.2216	3.697	600.3	0.2316	3.727	592.5	0.2320

Table 4-55. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly E14

	Assembly Number E14								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.938	632.5	0.7396	5.462	616.5	0.7396	5.862	607.5	0.7396
2	17.909	834.1	0.7396	19.592	760.0	0.7396	20.836	720.3	0.7396
3	23.621	858.9	0.7347	25.685	773.8	0.7360	27.189	728.6	0.7370
4	26.359	885.5	0.7004	28.587	793.5	0.7034	30.206	743.0	0.7059
5	27.485	894.0	0.6552	29.817	806.3	0.6604	31.515	753.1	0.6647
6	28.007	896.4	0.6069	30.427	817.2	0.6142	32.202	763.0	0.6202
7	28.338	897.0	0.5602	30.838	827.3	0.5691	32.694	773.6	0.5768
8	28.606	898.2	0.5171	31.181	836.9	0.5271	33.124	785.1	0.5361
9	29.478	907.5	0.4779	32.165	851.4	0.4884	34.233	802.0	0.4984
10	29.512	907.1	0.4430	32.237	856.4	0.4537	34.382	812.6	0.4643
11	29.413	904.3	0.4127	32.154	858.5	0.4231	34.359	820.9	0.4340
12	29.197	899.4	0.3863	31.939	858.6	0.3965	34.192	827.7	0.4073
13	28.888	893.2	0.3633	31.626	858.1	0.3732	33.916	832.9	0.3838
14	28.482	885.7	0.3432	31.217	857.7	0.3527	33.534	836.7	0.3630
15	27.944	876.7	0.3254	30.676	857.3	0.3346	33.010	839.2	0.3446
16	27.203	866.1	0.3097	29.924	855.8	0.3187	32.263	839.9	0.3283
17	26.028	853.6	0.2962	28.724	852.6	0.3050	31.058	839.2	0.3144
18	24.939	836.5	0.2836	27.563	843.2	0.2921	29.856	833.3	0.3012
19	23.690	814.2	0.2718	26.187	826.9	0.2800	28.394	821.2	0.2888
20	21.754	781.0	0.2609	24.009	796.8	0.2687	26.031	795.7	0.2773
21	19.303	747.0	0.2520	21.286	764.3	0.2597	23.093	767.2	0.2679
22	16.067	706.5	0.2445	17.676	721.8	0.2519	19.161	726.3	0.2598
23	7.017	622.3	0.2401	7.729	628.8	0.2474	8.396	631.6	0.2554
24	4.050	594.3	0.2361	4.431	597.2	0.2432	4.786	598.4	0.2507

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.066	598.6	0.7396	6.355	596.4	0.7396	6.904	616.1	0.7396
2	21.453	685.2	0.7396	22.395	687.5	0.7396	24.085	749.3	0.7396
3	27.920	689.1	0.7375	29.225	715.8	0.7382	31.333	766.2	0.7388
4	30.979	697.1	0.7070	32.770	782.1	0.7092	35.087	789.8	0.7110
5	32.322	703.6	0.6668	34.409	825.6	0.6707	36.854	804.6	0.6739
6	33.052	712.0	0.6235	35.339	856.3	0.6289	37.860	813.6	0.6333
7	33.600	723.0	0.5813	36.127	894.8	0.5879	38.689	818.4	0.5932
8	34.097	736.3	0.5416	36.774	919.8	0.5488	39.373	822.8	0.5545
9	35.298	755.1	0.5048	38.107	942.4	0.5116	40.776	831.3	0.5177
10	35.519	770.1	0.4714	38.395	954.2	0.4776	41.078	833.0	0.4840
11	35.561	784.0	0.4416	38.441	954.9	0.4471	41.117	832.1	0.4534
12	35.453	796.7	0.4152	38.306	950.1	0.4199	40.961	829.6	0.4260
13	35.227	807.7	0.3917	38.042	943.5	0.3958	40.664	825.6	0.4018
14	34.890	817.8	0.3709	37.658	935.4	0.3745	40.239	820.7	0.3802
15	34.406	826.8	0.3523	37.122	926.4	0.3555	39.659	815.4	0.3611
16	33.696	835.2	0.3359	36.353	916.4	0.3388	38.837	809.2	0.3440
17	32.521	842.1	0.3220	35.111	905.2	0.3245	37.535	802.2	0.3296
18	31.325	843.5	0.3085	33.819	889.4	0.3109	36.144	790.7	0.3159
19	29.836	837.3	0.2960	32.220	871.7	0.2985	34.398	774.0	0.3033
20	27.377	815.5	0.2841	29.511	832.7	0.2867	31.456	748.3	0.2915
21	24.316	788.5	0.2747	26.152	788.6	0.2771	27.831	719.9	0.2817
22	20.179	745.5	0.2664	21.632	735.4	0.2686	22.959	684.0	0.2730
23	8.856	639.6	0.2619	9.509	635.2	0.2642	10.100	614.2	0.2685
24	5.031	602.5	0.2569	5.382	600.7	0.2591	5.698	589.6	0.2633

Table 4-56. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F1

	Assembly Number F1								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.982	626.0	0.7396	3.035	643.0	0.7396
2	0.000		0.7396	3.461	823.8	0.7396	10.841	909.6	0.7396
3	0.000		0.7224	4.949	901.7	0.7381	14.807	982.7	0.7308
4	0.000		0.6466	6.046	1001.5	0.7048	16.830	1035.9	0.6903
5	0.000		0.5727	6.800	1076.9	0.6554	17.664	1040.7	0.6372
6	0.000	Data Not	0.5111	7.296	1129.7	0.5969	18.024	1032.6	0.5815
7	0.000	Required	0.4626	7.561	1159.0	0.5375	18.226	1028.9	0.5295
8	0.000		0.4240	7.619	1165.5	0.4835	18.358	1033.3	0.4838
9	0.000		0.3921	7.732	1178.3	0.4374	18.876	1057.5	0.4444
10	0.000		0.3654	7.530	1155.5	0.3986	18.899	1071.2	0.4103
11	0.000		0.3431	7.258	1125.5	0.3667	18.859	1085.5	0.3810
12	0.000		0.3243	6.939	1091.4	0.3403	18.747	1098.4	0.3559
13	0.000		0.3082	6.589	1055.2	0.3184	18.561	1108.8	0.3339
14	0.000		0.2944	6.216	1018.0	0.3000	18.289	1115.2	0.3147
15	0.000		0.2826	5.820	980.0	0.2845	17.906	1116.1	0.2977
16	0.000		0.2724	5.387	940.2	0.2714	17.358	1108.7	0.2827
17	0.000		0.2638	4.816	890.4	0.2604	16.425	1086.0	0.2696
18	0.000		0.2566	4.431	858.3	0.2512	15.662	1062.8	0.2575
19	0.000		0.2503	4.099	831.7	0.2432	14.838	1033.3	0.2465
20	0.000		0.2449	3.743	804.1	0.2362	13.705	988.5	0.2365
21	0.000		0.2402	3.285	770.0	0.2302	12.137	928.1	0.2283
22	0.000		0.2360	2.778	733.9	0.2252	10.172	854.7	0.2215
23	0.000		0.2333	1.247	634.6	0.2218	4.622	681.9	0.2168
24	0.000		0.2319	0.772	606.3	0.2204	2.767	630.7	0.2144

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.559	603.8	0.7396	3.961	599.1	0.7396	3.989	592.5	0.7396
2	12.686	728.7	0.7396	14.065	705.5	0.7396	14.164	683.9	0.7396
3	17.141	746.6	0.7339	18.881	720.4	0.7357	19.015	707.6	0.7359
4	19.384	766.6	0.6978	21.301	738.5	0.7027	21.456	733.1	0.7030
5	20.333	777.2	0.6502	22.354	749.4	0.6587	22.523	750.7	0.6594
6	20.768	784.3	0.5995	22.860	756.9	0.6118	23.041	766.0	0.6128
7	21.036	790.5	0.5517	23.185	763.0	0.5669	23.378	781.7	0.5681
8	21.237	797.1	0.5088	23.441	768.9	0.5263	23.650	803.2	0.5277
9	21.883	809.4	0.4712	24.187	779.8	0.4900	24.442	868.3	0.4917
10	21.955	814.2	0.4378	24.302	784.5	0.4574	24.667	1047.8	0.4596
11	21.942	816.8	0.4085	24.319	787.8	0.4283	24.721	1116.7	0.4303
12	21.846	818.4	0.3829	24.248	790.6	0.4026	24.646	1109.0	0.4041
13	21.669	819.3	0.3603	24.093	793.1	0.3798	24.477	1082.6	0.3809
14	21.398	819.4	0.3405	23.839	795.0	0.3596	24.206	1051.4	0.3604
15	21.004	818.3	0.3228	23.456	796.2	0.3417	23.804	1017.6	0.3424
16	20.429	815.7	0.3073	22.879	796.0	0.3258	23.208	985.0	0.3263
17	19.454	811.6	0.2941	21.889	794.3	0.3125	22.199	953.5	0.3130
18	18.615	804.2	0.2817	21.006	789.4	0.2998	21.293	916.8	0.3002
19	17.677	793.2	0.2702	19.990	780.8	0.2880	20.251	877.2	0.2884
20	16.315	771.7	0.2596	18.455	762.0	0.2769	18.681	826.6	0.2772
21	14.474	746.9	0.2510	16.407	740.2	0.2681	16.598	779.1	0.2684
22	12.104	711.4	0.2434	13.714	707.4	0.2602	13.863	725.7	0.2604
23	5.461	623.5	0.2378	6.168	622.7	0.2540	6.232	628.3	0.2543
24	3.212	594.2	0.2332	3.587	593.7	0.2481	3.621	596.6	0.2484

Table 4-56. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F1

	Assembly Number F1								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.608	633.4	0.7396	5.068	609.3	0.7396	5.505	612.2	0.7396
2	16.257	842.7	0.7396	17.769	737.3	0.7396	19.165	742.4	0.7396
3	21.659	875.2	0.7360	23.553	754.0	0.7367	25.314	761.2	0.7376
4	24.362	914.3	0.7037	26.429	774.2	0.7055	28.446	795.1	0.7078
5	25.506	926.2	0.6607	27.677	786.7	0.6642	29.833	814.2	0.6681
6	26.056	931.2	0.6147	28.307	796.4	0.6199	30.546	825.8	0.6252
7	26.484	945.5	0.5705	28.800	804.4	0.5773	31.102	834.7	0.5836
8	26.789	950.7	0.5300	29.168	812.2	0.5379	31.534	843.9	0.5448
9	27.634	959.2	0.4935	30.108	824.1	0.5022	32.584	859.9	0.5093
10	27.825	953.8	0.4609	30.324	827.2	0.4700	32.871	870.3	0.4771
11	27.839	947.4	0.4314	30.343	827.9	0.4409	32.929	876.2	0.4478
12	27.749	945.0	0.4054	30.247	827.1	0.4148	32.856	879.6	0.4215
13	27.651	956.3	0.3828	30.154	827.8	0.3923	32.803	885.7	0.3986
14	27.360	953.1	0.3622	29.988	843.8	0.3723	32.756	903.9	0.3789
15	26.885	941.5	0.3437	29.907	896.5	0.3558	32.686	905.6	0.3618
16	26.193	926.5	0.3273	29.435	927.5	0.3399	32.186	901.3	0.3452
17	25.069	908.9	0.3136	28.321	928.9	0.3253	31.038	896.0	0.3302
18	24.007	885.5	0.3006	27.166	915.7	0.3114	29.809	884.8	0.3158
19	22.762	856.0	0.2887	25.794	897.9	0.2988	28.309	865.6	0.3029
20	20.887	813.6	0.2776	23.614	856.7	0.2869	25.892	831.3	0.2908
21	18.478	770.8	0.2688	20.838	809.8	0.2773	22.843	793.5	0.2810
22	15.345	721.5	0.2609	17.215	751.2	0.2687	18.836	743.3	0.2723
23	6.881	628.0	0.2550	7.697	639.0	0.2624	8.427	638.5	0.2660
24	3.973	597.2	0.2495	4.404	601.9	0.2564	4.798	602.5	0.2601

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.793	615.5	0.7396	6.263	620.6	0.7396	7.009	637.7	0.7396
2	20.050	746.6	0.7396	21.502	766.4	0.7396	23.718	818.4	0.7396
3	26.384	756.2	0.7382	28.213	787.6	0.7390	30.941	838.5	0.7393
4	29.583	770.2	0.7092	31.614	817.2	0.7111	34.589	869.3	0.7120
5	31.010	778.7	0.6706	33.181	838.4	0.6737	36.302	888.0	0.6753
6	31.764	787.5	0.6287	34.049	856.1	0.6328	37.265	900.4	0.6348
7	32.369	798.1	0.5878	34.752	871.6	0.5925	38.033	909.0	0.5948
8	32.864	812.0	0.5496	35.344	887.2	0.5545	38.683	916.7	0.5565
9	34.004	832.3	0.5144	36.609	907.8	0.5192	40.042	929.4	0.5207
10	34.350	845.9	0.4823	37.004	916.1	0.4867	40.454	931.8	0.4879
11	34.458	857.6	0.4529	37.134	919.8	0.4567	40.582	931.5	0.4577
12	34.428	867.8	0.4264	37.106	920.1	0.4299	40.533	928.6	0.4306
13	34.408	875.7	0.4033	37.065	916.6	0.4064	40.446	922.4	0.4069
14	34.385	881.5	0.3833	37.004	910.2	0.3859	40.323	914.1	0.3862
15	34.330	885.2	0.3658	36.894	901.0	0.3680	40.136	903.8	0.3682
16	33.850	890.1	0.3490	36.360	892.1	0.3510	39.530	894.4	0.3511
17	32.724	895.5	0.3339	35.177	882.9	0.3357	38.276	885.1	0.3357
18	31.488	893.8	0.3193	33.845	867.5	0.3211	36.832	870.8	0.3211
19	29.943	882.8	0.3062	32.152	844.3	0.3080	34.972	849.8	0.3080
20	27.404	853.6	0.2940	29.372	807.9	0.2957	31.910	815.6	0.2959
21	24.197	817.4	0.2841	25.889	768.2	0.2858	28.097	777.5	0.2860
22	19.945	764.3	0.2752	21.286	720.5	0.2770	23.057	729.7	0.2773
23	8.934	648.0	0.2690	9.552	631.2	0.2709	10.388	636.7	0.2714
24	5.071	607.3	0.2631	5.406	598.9	0.2651	5.869	602.7	0.2659

Table 4-57. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F2

	Assembly Number F2								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.204	642.0	0.7396	3.222	641.5	0.7396
2	0.000		0.7396	4.216	893.9	0.7396	11.501	904.1	0.7396
3	0.000		0.6991	5.967	993.9	0.7298	15.608	970.6	0.7272
4	0.000		0.6089	7.068	1105.1	0.6853	17.566	1019.2	0.6815
5	0.000		0.5297	7.574	1160.5	0.6246	18.224	1028.1	0.6235
6	0.000	Data Not	0.4693	7.766	1182.2	0.5598	18.424	1028.5	0.5653
7	0.000	Required	0.4237	7.842	1190.9	0.4998	18.560	1032.1	0.5135
8	0.000		0.3885	7.848	1191.6	0.4487	18.703	1040.2	0.4693
9	0.000		0.3597	7.967	1205.4	0.4060	19.256	1066.3	0.4316
10	0.000		0.3357	7.757	1181.2	0.3704	19.286	1081.0	0.3992
11	0.000		0.3158	7.468	1148.6	0.3412	19.241	1096.2	0.3716
12	0.000		0.2989	7.131	1111.8	0.3171	19.124	1110.1	0.3477
13	0.000		0.2844	6.764	1073.1	0.2971	18.932	1121.3	0.3268
14	0.000		0.2720	6.372	1033.4	0.2803	18.648	1128.3	0.3085
15	0.000		0.2614	5.953	992.6	0.2662	18.243	1129.2	0.2922
16	0.000		0.2521	5.495	950.0	0.2542	17.665	1121.5	0.2779
17	0.000		0.2443	4.894	897.0	0.2441	16.693	1097.9	0.2654
18	0.000		0.2372	4.479	862.3	0.2358	15.889	1073.7	0.2538
19	0.000		0.2309	4.117	833.1	0.2285	15.024	1043.3	0.2432
20	0.000		0.2255	3.734	803.4	0.2222	13.852	997.3	0.2335
21	0.000		0.2209	3.263	768.4	0.2169	12.250	935.3	0.2254
22	0.000		0.2171	2.760	732.6	0.2126	10.273	860.5	0.2185
23	0.000		0.2146	1.249	634.7	0.2095	4.692	684.5	0.2138
24	0.000		0.2133	0.777	606.6	0.2081	2.812	632.2	0.2113

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	4.091	634.6	0.7396	4.801	631.1	0.7396	4.857	627.3	0.7396
2	14.525	857.8	0.7396	16.956	837.0	0.7396	17.139	806.6	0.7396
3	19.529	903.7	0.7292	22.727	884.4	0.7305	22.961	837.9	0.7306
4	21.942	954.8	0.6869	25.559	938.5	0.6904	25.820	877.2	0.6907
5	22.794	977.6	0.6324	26.607	964.9	0.6384	26.887	906.0	0.6388
6	23.046	983.8	0.5766	26.918	973.1	0.5841	27.213	929.4	0.5849
7	23.167	982.0	0.5255	27.026	971.3	0.5337	27.333	948.6	0.5345
8	23.285	979.0	0.4811	27.110	966.6	0.4891	27.427	965.0	0.4899
9	23.909	987.5	0.4427	27.772	971.8	0.4503	28.103	988.4	0.4511
10	23.909	983.9	0.4096	27.731	966.2	0.4167	28.065	993.5	0.4174
11	23.809	977.4	0.3812	27.585	959.9	0.3879	27.917	990.1	0.3886
12	23.630	970.0	0.3566	27.364	954.2	0.3630	27.691	981.6	0.3637
13	23.374	962.5	0.3353	27.074	949.6	0.3413	27.394	970.0	0.3419
14	23.021	954.5	0.3164	26.693	945.8	0.3222	27.005	956.8	0.3227
15	22.534	945.0	0.2998	26.170	941.0	0.3054	26.473	942.2	0.3058
16	21.840	931.9	0.2851	25.410	932.2	0.2904	25.704	927.8	0.2909
17	20.719	915.2	0.2724	24.188	919.0	0.2775	24.472	912.2	0.2780
18	19.740	896.0	0.2607	23.069	900.9	0.2656	23.339	890.7	0.2660
19	18.665	873.6	0.2499	21.816	878.6	0.2547	22.066	860.9	0.2551
20	17.147	837.9	0.2401	19.997	842.0	0.2448	20.215	815.5	0.2452
21	15.137	797.8	0.2320	17.635	801.3	0.2366	17.820	771.2	0.2370
22	12.622	747.9	0.2250	14.653	750.5	0.2296	14.799	722.1	0.2299
23	5.750	640.3	0.2204	6.670	641.8	0.2250	6.736	630.4	0.2254
24	3.400	604.7	0.2176	3.912	605.5	0.2220	3.949	599.8	0.2223

Table 4-57. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F2

	Assembly Number F2								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.477	633.5	0.7396	6.200	639.5	0.7396	6.808	633.9	0.7396
2	19.120	824.9	0.7396	21.361	838.6	0.7396	23.196	809.3	0.7396
3	25.437	851.0	0.7318	28.240	866.8	0.7326	30.516	831.0	0.7331
4	28.546	887.2	0.6934	31.667	910.3	0.6956	34.167	863.4	0.6971
5	29.772	911.1	0.6435	33.112	941.6	0.6471	35.733	881.4	0.6497
6	30.217	929.5	0.5910	33.709	964.1	0.5957	36.392	890.8	0.5993
7	30.430	944.1	0.5414	34.018	978.5	0.5465	36.735	896.0	0.5508
8	30.603	956.6	0.4970	34.252	987.8	0.5019	36.999	900.6	0.5067
9	31.396	975.6	0.4578	35.137	1002.0	0.4624	37.969	913.9	0.4676
10	31.381	979.4	0.4237	35.118	1001.4	0.4278	38.027	926.0	0.4335
11	31.216	976.6	0.3943	34.908	994.4	0.3980	37.857	932.4	0.4037
12	30.947	969.6	0.3689	34.572	984.1	0.3722	37.592	943.8	0.3781
13	30.594	960.5	0.3466	34.140	972.2	0.3497	37.268	961.5	0.3558
14	30.141	950.2	0.3271	33.599	959.0	0.3298	36.858	983.5	0.3362
15	29.538	939.0	0.3099	32.903	945.3	0.3125	36.168	984.5	0.3182
16	28.693	927.1	0.2947	31.954	930.2	0.2971	35.160	974.5	0.3023
17	27.371	913.3	0.2816	30.514	913.4	0.2839	33.634	960.2	0.2885
18	26.099	892.3	0.2694	29.073	889.9	0.2717	32.053	937.4	0.2758
19	24.627	863.2	0.2584	27.371	859.0	0.2607	30.150	905.6	0.2644
20	22.465	819.6	0.2484	24.871	815.5	0.2506	27.335	858.1	0.2541
21	19.738	775.6	0.2401	21.787	772.1	0.2423	23.909	809.5	0.2455
22	16.321	726.3	0.2330	17.947	723.7	0.2352	19.645	753.1	0.2383
23	7.421	631.8	0.2285	8.162	631.6	0.2307	8.947	644.6	0.2338
24	4.326	599.8	0.2254	4.736	599.9	0.2277	5.172	606.9	0.2307

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.171	630.9	0.7396	7.346	581.5	0.7396	7.619	587.0	0.7396
2	24.255	788.9	0.7396	24.755	624.7	0.7396	25.510	638.7	0.7396
3	31.793	800.3	0.7336	32.390	628.7	0.7340	33.260	639.9	0.7346
4	35.527	818.7	0.6981	36.176	634.8	0.6992	37.084	643.5	0.7006
5	37.133	827.8	0.6516	37.832	640.7	0.6536	38.770	646.3	0.6560
6	37.827	835.8	0.6021	38.585	647.7	0.6051	39.565	650.3	0.6088
7	38.213	845.7	0.5544	39.036	655.4	0.5586	40.067	655.2	0.5635
8	38.529	857.9	0.5108	39.425	664.3	0.5163	40.518	661.1	0.5226
9	39.580	877.2	0.4719	40.566	675.3	0.4787	41.746	669.6	0.4863
10	39.693	890.6	0.4380	40.752	684.4	0.4461	42.001	676.3	0.4550
11	39.573	902.9	0.4083	40.696	692.4	0.4176	42.008	682.6	0.4276
12	39.372	919.0	0.3826	40.547	699.0	0.3929	41.914	688.0	0.4039
13	39.163	948.7	0.3605	40.382	704.7	0.3714	41.792	692.4	0.3831
14	38.812	964.3	0.3407	40.071	709.8	0.3521	41.522	696.5	0.3644
15	38.179	979.6	0.3226	39.480	715.3	0.3346	40.972	700.7	0.3473
16	37.284	1010.9	0.3067	38.623	720.3	0.3191	40.154	704.6	0.3323
17	35.792	1020.5	0.2927	37.164	724.6	0.3056	38.736	708.9	0.3194
18	34.172	1009.5	0.2796	35.549	725.3	0.2927	37.139	710.7	0.3069
19	32.172	982.6	0.2678	33.518	721.2	0.2809	35.091	709.0	0.2953
20	29.166	932.0	0.2571	30.412	708.2	0.2702	31.892	699.4	0.2846
21	25.512	875.3	0.2484	26.626	691.3	0.2612	27.973	686.0	0.2758
22	20.942	804.7	0.2410	21.836	664.0	0.2533	22.936	661.8	0.2675
23	9.557	666.6	0.2364	9.941	604.4	0.2479	10.422	604.3	0.2614
24	5.512	618.7	0.2332	5.701	582.6	0.2430	5.941	582.8	0.2548

Table 4-58. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F3

	Assembly Number F3								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.924	621.9	0.7396	2.926	640.8	0.7396
2	0.000		0.7396	3.266	806.6	0.7396	10.492	900.7	0.7396
3	0.000		0.7383	4.680	939.6	0.7396	14.416	1056.1	0.7325
4	0.000		0.6771	5.715	970.2	0.7106	16.454	1033.3	0.6937
5	0.000		0.6092	6.407	1036.8	0.6648	17.307	1042.8	0.6419
6	0.000	Data Not	0.5476	6.872	1084.4	0.6094	17.696	1038.3	0.5872
7	0.000	Required	0.4967	7.152	1114.1	0.5523	17.921	1035.1	0.5358
8	0.000		0.4553	7.262	1126.0	0.4996	18.059	1036.7	0.4905
9	0.000		0.4208	7.407	1141.9	0.4537	18.526	1056.0	0.4513
10	0.000		0.3917	7.227	1122.2	0.4145	18.474	1063.7	0.4173
11	0.000		0.3675	6.967	1094.4	0.3820	18.344	1071.7	0.3881
12	0.000		0.3472	6.659	1062.3	0.3551	18.143	1078.2	0.3630
13	0.000		0.3301	6.329	1029.1	0.3326	17.887	1082.8	0.3410
14	0.000		0.3154	5.993	996.4	0.3137	17.574	1084.2	0.3218
15	0.000		0.3028	5.654	964.5	0.2976	17.185	1081.1	0.3047
16	0.000		0.2922	5.305	932.9	0.2841	16.672	1071.1	0.2897
17	0.000		0.2832	4.832	891.7	0.2725	15.812	1047.6	0.2765
18	0.000		0.2756	4.548	867.9	0.2626	15.168	1026.3	0.2645
19	0.000		0.2691	4.303	848.0	0.2537	14.480	1000.7	0.2533
20	0.000		0.2634	4.006	824.4	0.2457	13.471	961.0	0.2433
21	0.000		0.2586	3.560	790.3	0.2388	11.976	905.5	0.2349
22	0.000		0.2546	3.022	751.0	0.2330	10.033	836.5	0.2280
23	0.000		0.2520	1.355	641.2	0.2290	4.532	674.3	0.2233
24	0.000		0.2507	0.830	609.7	0.2273	2.692	626.0	0.2208

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.849	639.5	0.7396	4.624	638.1	0.7396	4.669	613.4	0.7396
2	13.734	883.8	0.7396	16.372	865.3	0.7396	16.522	756.4	0.7396
3	18.556	927.9	0.7329	21.954	909.8	0.7333	22.144	777.8	0.7335
4	20.979	972.3	0.6954	24.756	960.0	0.6970	24.969	808.6	0.6973
5	21.960	987.5	0.6456	25.913	984.3	0.6483	26.143	832.2	0.6489
6	22.360	988.8	0.5921	26.376	993.2	0.5955	26.620	852.2	0.5965
7	22.559	985.7	0.5412	26.583	994.3	0.5449	26.840	871.2	0.5460
8	22.678	983.4	0.4960	26.696	993.5	0.4996	26.966	890.7	0.5008
9	23.234	994.1	0.4565	27.324	1003.7	0.4599	27.611	916.8	0.4611
10	23.178	993.7	0.4222	27.264	1003.2	0.4253	27.557	926.3	0.4265
11	23.037	992.3	0.3928	27.117	1002.3	0.3956	27.412	929.4	0.3967
12	22.835	992.2	0.3672	26.919	1002.9	0.3698	27.211	924.7	0.3709
13	22.603	995.1	0.3450	26.696	1004.2	0.3472	26.984	918.4	0.3482
14	22.344	1001.7	0.3253	26.450	1006.0	0.3273	26.732	909.1	0.3282
15	22.019	1009.5	0.3079	26.129	1006.6	0.3097	26.403	896.8	0.3105
16	21.544	1014.2	0.2924	25.635	1003.9	0.2938	25.900	883.2	0.2947
17	20.671	1012.6	0.2788	24.711	996.6	0.2800	24.967	869.8	0.2808
18	19.921	999.6	0.2662	23.852	981.3	0.2672	24.095	850.8	0.2680
19	19.024	974.5	0.2548	22.782	957.4	0.2557	23.008	826.6	0.2564
20	17.603	927.0	0.2446	21.033	913.9	0.2454	21.233	791.0	0.2461
21	15.628	874.8	0.2361	18.677	866.0	0.2369	18.850	755.8	0.2375
22	13.052	810.6	0.2291	15.584	805.2	0.2299	15.725	716.0	0.2305
23	5.910	665.6	0.2245	7.094	666.2	0.2252	7.159	629.3	0.2259
24	3.475	619.3	0.2220	4.153	620.1	0.2228	4.188	597.7	0.2234

Table 4-58. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F3

	Assembly Number F3								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.141	615.1	0.7396	5.769	628.4	0.7396	6.420	639.5	0.7396
2	18.050	756.4	0.7396	20.022	799.9	0.7396	22.002	832.6	0.7396
3	24.074	777.2	0.7350	26.540	823.1	0.7360	28.993	856.5	0.7364
4	27.119	806.1	0.7008	29.861	858.7	0.7032	32.557	892.8	0.7043
5	28.453	827.8	0.6547	31.398	886.0	0.6588	34.229	913.7	0.6608
6	29.076	848.2	0.6046	32.185	908.6	0.6102	35.084	924.4	0.6128
7	29.439	868.6	0.5560	32.681	927.5	0.5624	35.613	929.7	0.5656
8	29.706	889.3	0.5118	33.058	943.4	0.5186	36.012	933.2	0.5219
9	30.525	915.6	0.4724	34.016	963.9	0.4789	37.033	943.3	0.4823
10	30.549	927.6	0.4374	34.079	969.7	0.4435	37.104	944.6	0.4468
11	30.430	931.6	0.4070	33.949	968.1	0.4126	36.961	942.5	0.4159
12	30.221	930.4	0.3804	33.695	961.4	0.3856	36.681	938.3	0.3888
13	29.959	925.0	0.3571	33.361	950.7	0.3618	36.308	932.1	0.3649
14	29.656	917.1	0.3365	32.965	937.1	0.3409	35.859	923.6	0.3438
15	29.262	907.2	0.3182	32.462	921.5	0.3223	35.292	913.5	0.3252
16	28.679	895.1	0.3019	31.757	904.3	0.3058	34.509	901.4	0.3087
17	27.651	881.1	0.2877	30.596	886.0	0.2915	33.255	887.2	0.2942
18	26.645	861.6	0.2745	29.416	862.5	0.2782	31.941	867.1	0.2809
19	25.379	836.3	0.2627	27.934	834.4	0.2663	30.278	840.7	0.2690
20	23.333	799.4	0.2521	25.582	796.1	0.2556	27.658	803.2	0.2583
21	20.661	762.0	0.2433	22.595	758.6	0.2468	24.388	765.4	0.2494
22	17.181	718.4	0.2361	18.737	716.0	0.2395	20.184	721.6	0.2421
23	7.830	630.3	0.2315	8.557	630.3	0.2350	9.241	633.5	0.2377
24	4.556	598.9	0.2287	4.960	599.3	0.2322	5.343	601.4	0.2349

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.757	625.5	0.7396	6.975	587.0	0.7396	7.222	584.3	0.7396
2	23.003	774.6	0.7396	23.634	642.9	0.7396	24.323	631.4	0.7396
3	30.222	789.9	0.7369	30.974	646.9	0.7374	31.763	632.4	0.7379
4	33.896	814.0	0.7056	34.701	653.3	0.7068	35.519	635.1	0.7079
5	35.623	826.4	0.6630	36.472	658.6	0.6651	37.313	637.2	0.6672
6	36.514	834.6	0.6159	37.408	664.0	0.6192	38.285	640.6	0.6223
7	37.075	842.0	0.5693	38.022	670.5	0.5739	38.948	645.2	0.5781
8	37.516	851.7	0.5261	38.525	678.2	0.5320	39.512	651.0	0.5375
9	38.607	868.3	0.4867	39.700	688.6	0.4939	40.773	659.2	0.5006
10	38.727	880.1	0.4514	39.887	697.1	0.4598	41.032	666.2	0.4679
11	38.630	891.3	0.4204	39.850	704.8	0.4299	41.064	672.9	0.4392
12	38.393	901.9	0.3932	39.667	711.8	0.4036	40.947	679.4	0.4141
13	38.059	911.7	0.3692	39.385	718.6	0.3803	40.726	685.4	0.3919
14	37.645	920.5	0.3481	39.026	725.8	0.3597	40.423	691.1	0.3721
15	37.109	928.4	0.3293	38.550	733.8	0.3414	40.006	697.0	0.3545
16	36.351	934.9	0.3126	37.855	742.3	0.3252	39.373	703.3	0.3390
17	35.113	939.0	0.2981	36.670	749.5	0.3110	38.255	710.2	0.3256
18	33.782	934.6	0.2846	35.354	751.6	0.2976	36.986	715.1	0.3128
19	32.055	918.2	0.2725	33.595	747.2	0.2854	35.239	716.3	0.3008
20	29.286	881.3	0.2616	30.713	731.9	0.2742	32.289	709.3	0.2898
21	25.829	837.1	0.2526	27.103	711.8	0.2649	28.563	697.4	0.2808
22	21.363	779.1	0.2451	22.390	680.4	0.2569	23.598	672.3	0.2723
23	9.805	658.3	0.2408	10.257	612.1	0.2518	10.795	609.4	0.2666
24	5.658	614.4	0.2377	5.885	586.8	0.2474	6.154	585.4	0.2604

Table 4-59. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F4

	Assembly Number F4								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.864	617.7	0.7396	2.844	639.9	0.7396
2	0.000		0.7396	3.084	790.7	0.7396	10.435	908.0	0.7396
3	0.000		0.7396	4.497	921.3	0.7396	14.640	1083.5	0.7321
4	0.000		0.7138	5.542	954.3	0.7139	16.804	1064.6	0.6927
5	0.000		0.6571	6.195	1015.9	0.6707	17.533	1069.3	0.6411
6	0.000	Data Not	0.6020	6.580	1054.3	0.6195	17.664	1053.9	0.5879
7	0.000	Required	0.5517	6.785	1075.3	0.5671	17.628	1039.4	0.5389
8	0.000		0.5086	6.858	1082.9	0.5177	17.575	1032.0	0.4958
9	0.000		0.4715	6.993	1097.1	0.4730	17.905	1043.5	0.4578
10	0.000		0.4397	6.825	1079.5	0.4339	17.749	1044.3	0.4242
11	0.000		0.4128	6.588	1055.1	0.4010	17.532	1045.5	0.3952
12	0.000		0.3901	6.326	1028.8	0.3734	17.276	1045.8	0.3701
13	0.000		0.3708	6.056	1002.4	0.3501	16.988	1044.7	0.3481
14	0.000		0.3545	5.771	975.4	0.3303	16.647	1041.4	0.3289
15	0.000		0.3405	5.450	945.9	0.3133	16.208	1034.4	0.3119
16	0.000		0.3285	5.062	911.5	0.2986	15.591	1021.0	0.2971
17	0.000		0.3186	4.517	865.4	0.2863	14.578	994.1	0.2843
18	0.000		0.3103	4.170	837.3	0.2760	13.808	970.5	0.2726
19	0.000		0.3032	3.898	816.0	0.2669	13.059	944.5	0.2620
20	0.000		0.2969	3.604	793.6	0.2588	12.085	908.8	0.2524
21	0.000		0.2916	3.173	761.8	0.2519	10.623	857.4	0.2444
22	0.000		0.2872	2.663	725.9	0.2463	8.769	795.0	0.2379
23	0.000		0.2844	1.194	631.4	0.2425	3.922	657.5	0.2333
24	0.000		0.2829	0.721	603.3	0.2409	2.295	615.8	0.2310

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.494	614.9	0.7396	4.007	610.5	0.7396	4.054	615.9	0.7396
2	12.735	776.4	0.7396	14.490	750.3	0.7396	14.656	780.4	0.7396
3	17.541	799.2	0.7348	19.744	768.8	0.7367	19.964	818.3	0.7369
4	19.971	825.1	0.6993	22.388	792.3	0.7040	22.642	866.8	0.7042
5	20.839	839.1	0.6524	23.380	806.2	0.6604	23.653	895.2	0.6609
6	21.059	848.1	0.6033	23.683	815.7	0.6143	23.966	910.6	0.6149
7	21.090	855.0	0.5574	23.774	822.6	0.5706	24.060	915.3	0.5713
8	21.094	860.9	0.5159	23.828	828.4	0.5305	24.115	916.8	0.5312
9	21.545	873.5	0.4785	24.377	839.9	0.4937	24.668	923.1	0.4943
10	21.417	876.5	0.4448	24.278	843.4	0.4602	24.565	916.8	0.4608
11	21.209	877.4	0.4153	24.088	845.5	0.4305	24.370	909.1	0.4310
12	20.951	877.2	0.3895	23.844	847.2	0.4044	24.119	898.3	0.4049
13	20.655	876.4	0.3670	23.558	848.4	0.3814	23.826	887.7	0.3819
14	20.293	874.1	0.3471	23.202	849.1	0.3611	23.462	875.7	0.3616
15	19.821	870.7	0.3295	22.728	848.8	0.3432	22.979	862.4	0.3436
16	19.154	865.4	0.3141	22.044	846.8	0.3275	22.284	846.5	0.3278
17	18.070	858.1	0.3010	20.926	842.8	0.3142	21.156	832.2	0.3145
18	17.183	846.1	0.2889	19.965	834.0	0.3016	20.181	812.7	0.3019
19	16.268	829.3	0.2777	18.928	819.8	0.2900	19.130	793.7	0.2903
20	14.998	800.3	0.2673	17.427	793.6	0.2792	17.607	764.8	0.2795
21	13.200	768.7	0.2591	15.365	764.7	0.2706	15.521	734.4	0.2710
22	10.876	726.5	0.2521	12.665	725.4	0.2634	12.791	698.0	0.2638
23	4.819	627.9	0.2469	5.593	628.6	0.2578	5.648	618.6	0.2582
24	2.781	597.2	0.2437	3.200	597.5	0.2542	3.230	592.5	0.2545

Table 4-59. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F4

	Assembly Number F4								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.602	624.5	0.7396	5.069	610.1	0.7396	5.400	599.0	0.7396
2	16.480	800.6	0.7396	17.979	735.6	0.7396	19.008	690.2	0.7396
3	22.228	821.5	0.7379	24.049	745.6	0.7391	25.279	718.4	0.7396
4	25.071	844.4	0.7067	27.025	761.0	0.7097	28.334	704.9	0.7117
5	26.145	853.3	0.6649	28.190	771.6	0.6701	29.562	712.5	0.6739
6	26.491	858.0	0.6204	28.630	782.8	0.6279	30.077	721.6	0.6334
7	26.610	861.6	0.5777	28.847	794.7	0.5869	30.383	732.7	0.5943
8	26.690	865.2	0.5380	29.025	806.7	0.5486	30.661	745.2	0.5576
9	27.316	875.8	0.5013	29.783	823.2	0.5126	31.554	762.5	0.5230
10	27.222	877.1	0.4676	29.751	831.1	0.4792	31.616	774.8	0.4906
11	27.020	876.1	0.4377	29.582	835.3	0.4493	31.525	785.2	0.4613
12	26.748	873.0	0.4113	29.323	837.0	0.4226	31.328	793.5	0.4350
13	26.419	867.8	0.3881	28.992	836.7	0.3989	31.047	800.3	0.4112
14	26.011	861.4	0.3675	28.571	835.0	0.3779	30.664	805.5	0.3900
15	25.475	853.9	0.3492	28.016	832.6	0.3592	30.138	809.5	0.3710
16	24.718	845.1	0.3333	27.233	829.3	0.3429	29.378	812.7	0.3545
17	23.515	834.6	0.3198	25.997	825.1	0.3292	28.158	814.9	0.3405
18	22.438	820.6	0.3070	24.852	816.5	0.3161	26.998	812.8	0.3271
19	21.252	802.4	0.2953	23.556	802.9	0.3040	25.646	805.1	0.3147
20	19.510	773.7	0.2843	21.607	777.8	0.2928	23.548	784.9	0.3031
21	17.183	743.4	0.2757	19.043	750.1	0.2839	20.800	760.7	0.2940
22	14.139	705.6	0.2683	15.659	712.0	0.2763	17.118	723.1	0.2861
23	6.237	621.7	0.2629	6.905	624.5	0.2709	7.554	629.7	0.2805
24	3.549	593.9	0.2591	3.906	594.9	0.2667	4.249	597.2	0.2758

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.564	590.7	0.7396	6.033	620.5	0.7396	6.676	626.4	0.7396
2	19.505	659.1	0.7396	20.942	764.0	0.7396	22.873	780.3	0.7396
3	25.864	678.2	0.7396	27.629	818.5	0.7396	30.018	842.3	0.7396
4	28.949	667.6	0.7126	30.887	803.5	0.7141	33.547	830.3	0.7156
5	30.203	672.3	0.6755	32.272	822.9	0.6781	35.139	855.7	0.6806
6	30.756	679.4	0.6360	32.941	840.6	0.6394	35.974	876.6	0.6426
7	31.115	689.4	0.5979	33.413	858.1	0.6017	36.576	893.4	0.6052
8	31.460	702.1	0.5624	33.872	876.2	0.5663	37.142	907.5	0.5694
9	32.446	720.2	0.5289	35.004	900.0	0.5325	38.408	925.5	0.5350
10	32.586	735.8	0.4976	35.221	912.9	0.5009	38.675	932.3	0.5027
11	32.567	750.4	0.4691	35.249	920.8	0.4720	38.720	934.6	0.4732
12	32.438	764.5	0.4433	35.145	925.0	0.4458	38.610	933.8	0.4465
13	32.217	777.2	0.4198	34.935	926.9	0.4221	38.378	930.8	0.4224
14	31.889	789.0	0.3987	34.604	926.4	0.4006	38.011	925.9	0.4007
15	31.412	799.7	0.3799	34.109	923.3	0.3814	37.471	919.8	0.3812
16	30.695	809.1	0.3632	33.362	918.3	0.3644	36.667	912.2	0.3640
17	29.514	817.8	0.3492	32.136	910.7	0.3501	35.372	903.0	0.3494
18	28.370	821.4	0.3357	30.903	895.9	0.3364	34.022	887.7	0.3355
19	27.006	818.7	0.3230	29.395	872.6	0.3236	32.342	865.7	0.3227
20	24.832	801.9	0.3111	26.973	833.8	0.3116	29.630	829.9	0.3108
21	21.983	780.0	0.3019	23.844	792.2	0.3023	26.166	790.4	0.3014
22	18.111	740.4	0.2938	19.604	740.8	0.2942	21.477	740.5	0.2934
23	7.999	637.0	0.2882	8.676	638.1	0.2884	9.543	639.6	0.2877
24	4.483	600.7	0.2830	4.853	602.8	0.2834	5.333	604.2	0.2829

Table 4-60. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F5

	Assembly Number F5								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.911	621.0	0.7396	2.999	644.5	0.7396
2	0.000		0.7396	3.196	800.4	0.7396	10.674	915.3	0.7396
3	0.000		0.7396	4.572	928.7	0.7396	14.589	1074.9	0.7310
4	0.000		0.6829	5.624	961.8	0.7119	16.629	1049.1	0.6905
5	0.000		0.6171	6.377	1033.9	0.6665	17.496	1056.0	0.6377
6	0.000	Data Not	0.5565	6.902	1087.5	0.6114	17.896	1048.4	0.5828
7	0.000	Required	0.5055	7.226	1122.1	0.5541	18.137	1043.5	0.5317
8	0.000		0.4634	7.373	1138.1	0.5008	18.316	1045.4	0.4865
9	0.000		0.4281	7.558	1158.7	0.4539	18.864	1067.3	0.4471
10	0.000		0.3981	7.405	1141.7	0.4139	18.892	1078.4	0.4127
11	0.000		0.3730	7.157	1114.6	0.3807	18.833	1090.2	0.3833
12	0.000		0.3518	6.851	1082.2	0.3533	18.693	1100.6	0.3580
13	0.000		0.3339	6.511	1047.3	0.3304	18.479	1108.5	0.3359
14	0.000		0.3186	6.153	1011.8	0.3113	18.186	1112.7	0.3166
15	0.000		0.3055	5.778	976.1	0.2952	17.788	1111.2	0.2995
16	0.000		0.2943	5.376	939.2	0.2815	17.235	1101.6	0.2845
17	0.000		0.2849	4.841	892.5	0.2701	16.306	1077.1	0.2713
18	0.000		0.2770	4.499	863.9	0.2603	15.568	1053.0	0.2593
19	0.000		0.2703	4.209	840.4	0.2517	14.780	1023.4	0.2483
20	0.000		0.2644	3.882	814.8	0.2441	13.675	979.1	0.2384
21	0.000		0.2594	3.432	780.8	0.2375	12.114	919.2	0.2301
22	0.000		0.2552	2.913	743.3	0.2321	10.136	846.5	0.2233
23	0.000		0.2526	1.310	638.4	0.2282	4.590	678.2	0.2186
24	0.000		0.2512	0.806	608.3	0.2266	2.740	628.6	0.2162

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.962	643.2	0.7396	4.874	652.9	0.7396	4.903	593.7	0.7396
2	14.038	898.6	0.7396	17.138	931.6	0.7396	17.235	681.2	0.7396
3	18.924	950.1	0.7313	22.935	992.5	0.7308	23.061	698.0	0.7310
4	21.405	1002.4	0.6920	25.827	1052.4	0.6913	25.971	719.6	0.6916
5	22.415	1020.0	0.6405	26.952	1069.9	0.6395	27.111	738.1	0.6402
6	22.812	1019.7	0.5862	27.321	1065.6	0.5849	27.492	753.2	0.5858
7	23.007	1014.0	0.5351	27.437	1053.6	0.5335	27.620	768.6	0.5347
8	23.156	1010.3	0.4897	27.517	1043.3	0.4880	27.710	781.7	0.4895
9	23.793	1021.3	0.4501	28.181	1047.3	0.4486	28.386	797.8	0.4502
10	23.812	1020.1	0.4157	28.153	1040.3	0.4142	28.363	804.5	0.4160
11	23.736	1018.0	0.3860	28.038	1034.5	0.3848	28.248	804.5	0.3864
12	23.584	1016.5	0.3604	27.858	1030.4	0.3592	28.066	801.8	0.3608
13	23.372	1016.8	0.3381	27.630	1028.1	0.3369	27.833	795.1	0.3386
14	23.092	1018.4	0.3186	27.341	1026.8	0.3174	27.540	789.7	0.3189
15	22.708	1020.1	0.3013	26.943	1024.7	0.3001	27.138	784.4	0.3015
16	22.140	1018.3	0.2859	26.343	1020.0	0.2847	26.538	784.4	0.2861
17	21.156	1011.5	0.2725	25.298	1011.2	0.2711	25.513	811.4	0.2727
18	20.279	994.5	0.2602	24.298	993.6	0.2588	24.587	920.0	0.2609
19	19.261	967.1	0.2490	23.086	966.6	0.2477	23.386	937.4	0.2498
20	17.731	918.5	0.2390	21.200	919.0	0.2378	21.468	887.7	0.2397
21	15.685	866.3	0.2308	18.746	867.5	0.2296	18.975	830.8	0.2313
22	13.091	804.4	0.2240	15.623	805.2	0.2229	15.802	763.5	0.2245
23	5.963	665.2	0.2194	7.158	667.2	0.2183	7.236	643.4	0.2197
24	3.526	619.5	0.2170	4.216	621.2	0.2160	4.258	605.0	0.2173

Table 4-60. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F5

	Assembly Number F5								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.211	595.2	0.7396	5.576	598.7	0.7396	6.071	619.5	0.7396
2	18.248	684.6	0.7396	19.441	696.4	0.7396	21.002	767.0	0.7396
3	24.368	700.8	0.7323	25.922	715.8	0.7337	27.889	788.4	0.7345
4	27.455	721.7	0.6950	29.245	742.1	0.6985	31.415	816.1	0.7007
5	28.731	738.2	0.6464	30.704	763.2	0.6528	32.979	830.9	0.6566
6	29.232	753.1	0.5950	31.348	780.1	0.6043	33.683	839.4	0.6095
7	29.467	766.6	0.5466	31.697	793.8	0.5583	34.075	845.6	0.5645
8	29.659	779.6	0.5035	31.979	804.8	0.5168	34.397	851.4	0.5235
9	30.454	795.2	0.4655	32.876	817.5	0.4796	35.369	862.4	0.4865
10	30.479	801.6	0.4319	32.927	820.8	0.4462	35.447	866.3	0.4531
11	30.375	803.0	0.4023	32.809	819.0	0.4164	35.345	868.7	0.4231
12	30.177	800.9	0.3763	32.574	814.4	0.3899	35.116	869.6	0.3964
13	29.918	797.5	0.3534	32.262	807.8	0.3663	34.803	869.5	0.3726
14	29.596	793.6	0.3332	31.882	800.7	0.3456	34.411	867.7	0.3515
15	29.201	794.5	0.3156	31.422	792.7	0.3274	33.928	864.3	0.3330
16	28.713	809.5	0.3005	30.876	785.7	0.3118	33.334	857.2	0.3170
17	27.779	821.8	0.2873	29.929	784.2	0.2985	32.335	849.6	0.3035
18	27.105	857.0	0.2765	29.142	770.7	0.2870	31.496	842.1	0.2919
19	26.080	882.5	0.2662	27.945	750.7	0.2758	30.220	830.9	0.2808
20	23.993	858.0	0.2555	25.622	724.0	0.2645	27.730	807.5	0.2696
21	21.225	819.6	0.2465	22.613	697.8	0.2550	24.500	777.7	0.2602
22	17.613	762.0	0.2386	18.723	668.6	0.2469	20.264	733.3	0.2519
23	8.042	644.7	0.2332	8.537	607.9	0.2413	9.251	636.8	0.2464
24	4.684	604.8	0.2294	4.948	586.2	0.2370	5.338	602.1	0.2417

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.515	647.8	0.7396	6.661	577.7	0.7396	6.875	580.8	0.7396
2	22.331	858.7	0.7396	22.754	614.3	0.7396	23.354	621.7	0.7396
3	29.488	874.3	0.7348	29.988	617.6	0.7352	30.677	623.1	0.7357
4	33.102	895.7	0.7015	33.638	621.7	0.7024	34.352	625.4	0.7035
5	34.693	902.4	0.6578	35.259	625.1	0.6594	35.995	627.5	0.6613
6	35.412	906.2	0.6112	36.015	629.4	0.6136	36.784	630.5	0.6166
7	35.829	912.4	0.5664	36.476	634.6	0.5697	37.290	634.7	0.5737
8	36.190	922.3	0.5255	36.886	640.3	0.5298	37.753	639.6	0.5349
9	37.237	941.6	0.4885	37.998	648.0	0.4937	38.940	646.7	0.4999
10	37.365	954.7	0.4549	38.182	654.7	0.4612	39.187	652.7	0.4687
11	37.310	967.2	0.4248	38.182	661.3	0.4323	39.248	658.5	0.4409
12	37.126	979.4	0.3980	38.056	668.4	0.4065	39.183	664.4	0.4163
13	36.855	990.9	0.3740	37.849	676.3	0.3838	39.034	670.0	0.3947
14	36.499	1000.8	0.3528	37.572	686.1	0.3638	38.815	675.7	0.3756
15	36.043	1008.3	0.3341	37.215	698.7	0.3464	38.520	681.9	0.3592
16	35.456	1010.3	0.3180	36.742	713.4	0.3316	38.118	688.9	0.3452
17	34.441	1005.8	0.3042	35.828	726.6	0.3190	37.285	697.1	0.3336
18	33.537	987.8	0.2923	34.967	732.3	0.3075	36.474	702.2	0.3226
19	32.151	958.2	0.2810	33.571	731.0	0.2961	35.087	703.1	0.3116
20	29.476	910.4	0.2698	30.807	719.2	0.2847	32.261	696.8	0.3004
21	26.028	857.4	0.2604	27.228	702.2	0.2751	28.578	686.3	0.2911
22	21.503	792.0	0.2522	22.475	673.6	0.2661	23.599	664.1	0.2819
23	9.843	663.3	0.2466	10.267	608.9	0.2597	10.768	606.1	0.2749
24	5.669	617.2	0.2421	5.877	584.7	0.2533	6.125	583.5	0.2666

Table 4-61. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F6

	Assembly Number F6								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.950	623.8	0.7396	3.066	645.7	0.7396
2	0.000		0.7396	3.351	814.1	0.7396	10.957	922.8	0.7396
3	0.000		0.7363	4.806	889.5	0.7392	14.963	999.6	0.7296
4	0.000		0.6730	5.898	987.4	0.7068	17.007	1055.4	0.6874
5	0.000		0.6047	6.645	1060.9	0.6580	17.833	1060.1	0.6329
6	0.000	Data Not	0.5432	7.130	1111.7	0.6005	18.176	1051.6	0.5770
7	0.000	Required	0.4925	7.411	1142.3	0.5423	18.373	1046.5	0.5255
8	0.000		0.4512	7.527	1155.2	0.4892	18.531	1049.0	0.4804
9	0.000		0.4166	7.700	1174.7	0.4430	19.085	1072.2	0.4411
10	0.000		0.3874	7.539	1156.5	0.4038	19.127	1084.7	0.4070
11	0.000		0.3630	7.286	1128.6	0.3714	19.084	1097.8	0.3779
12	0.000		0.3425	6.975	1095.2	0.3446	18.957	1109.4	0.3528
13	0.000		0.3251	6.627	1059.0	0.3222	18.749	1118.4	0.3310
14	0.000		0.3102	6.253	1021.6	0.3035	18.452	1123.3	0.3120
15	0.000		0.2974	5.853	983.1	0.2878	18.040	1122.6	0.2952
16	0.000		0.2865	5.414	942.6	0.2745	17.461	1113.6	0.2803
17	0.000		0.2773	4.838	892.2	0.2633	16.499	1089.2	0.2675
18	0.000		0.2697	4.459	860.6	0.2539	15.720	1064.6	0.2555
19	0.000		0.2631	4.143	835.2	0.2458	14.895	1034.1	0.2447
20	0.000		0.2573	3.803	808.7	0.2385	13.760	988.2	0.2349
21	0.000		0.2524	3.349	774.6	0.2324	12.172	926.6	0.2267
22	0.000		0.2485	2.829	737.4	0.2273	10.161	851.8	0.2200
23	0.000		0.2459	1.265	635.7	0.2236	4.591	680.0	0.2153
24	0.000		0.2445	0.781	606.8	0.2221	2.741	629.5	0.2129

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	4.041	644.3	0.7396	4.768	633.0	0.7396	4.813	613.4	0.7396
2	14.337	900.6	0.7396	16.763	836.4	0.7396	16.909	750.4	0.7396
3	19.221	941.3	0.7303	22.289	868.3	0.7316	22.477	775.2	0.7317
4	21.614	982.0	0.6900	24.989	906.8	0.6933	25.202	808.6	0.6937
5	22.545	994.6	0.6376	26.076	927.1	0.6433	26.307	833.7	0.6441
6	22.895	995.5	0.5831	26.506	937.7	0.5907	26.752	855.1	0.5917
7	23.065	992.2	0.5322	26.715	942.9	0.5408	26.974	874.2	0.5420
8	23.200	989.4	0.4871	26.870	945.5	0.4959	27.141	892.2	0.4972
9	23.830	998.6	0.4476	27.584	956.9	0.4563	27.869	913.7	0.4576
10	23.851	996.1	0.4133	27.608	957.3	0.4217	27.898	921.5	0.4229
11	23.774	992.0	0.3839	27.523	956.2	0.3919	27.813	921.5	0.3931
12	23.608	987.3	0.3585	27.349	955.1	0.3662	27.636	916.8	0.3672
13	23.361	982.6	0.3365	27.099	954.7	0.3438	27.382	910.6	0.3447
14	23.022	977.6	0.3172	26.760	954.7	0.3241	27.038	902.9	0.3251
15	22.560	971.7	0.3002	26.290	953.6	0.3068	26.564	896.8	0.3077
16	21.908	963.1	0.2851	25.608	949.6	0.2915	25.879	892.2	0.2923
17	20.847	951.6	0.2720	24.490	941.9	0.2781	24.764	896.8	0.2790
18	19.922	934.9	0.2600	23.458	927.7	0.2658	23.732	896.8	0.2666
19	18.895	912.3	0.2491	22.271	907.0	0.2547	22.536	883.2	0.2555
20	17.398	873.3	0.2391	20.478	869.8	0.2446	20.715	842.2	0.2453
21	15.387	829.9	0.2310	18.123	828.6	0.2363	18.327	796.4	0.2370
22	12.803	774.7	0.2242	15.062	774.9	0.2294	15.224	741.8	0.2301
23	5.777	650.3	0.2197	6.810	652.1	0.2248	6.883	638.0	0.2255
24	3.406	610.4	0.2171	3.985	611.4	0.2221	4.024	601.8	0.2228

Table 4-61. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F6

	Assembly Number F6								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.284	615.0	0.7396	5.918	629.1	0.7396	6.625	646.8	0.7396
2	18.438	756.6	0.7396	20.445	804.9	0.7396	22.601	861.6	0.7396
3	24.430	780.2	0.7334	26.985	834.4	0.7345	29.648	887.8	0.7347
4	27.402	812.8	0.6974	30.278	876.6	0.7000	33.161	921.9	0.7010
5	28.682	836.8	0.6503	31.771	905.8	0.6545	34.736	935.0	0.6563
6	29.272	857.3	0.6002	32.501	925.6	0.6057	35.485	938.0	0.6080
7	29.621	875.6	0.5520	32.939	938.4	0.5583	35.920	937.5	0.5609
8	29.903	892.6	0.5081	33.278	946.7	0.5145	36.259	937.5	0.5171
9	30.772	913.9	0.4686	34.235	959.7	0.4747	37.271	946.4	0.4774
10	30.850	921.4	0.4335	34.312	959.6	0.4393	37.357	947.9	0.4420
11	30.770	922.2	0.4031	34.192	953.7	0.4084	37.235	947.6	0.4111
12	30.572	918.9	0.3766	33.932	944.6	0.3817	36.964	945.8	0.3843
13	30.283	913.6	0.3535	33.565	933.2	0.3582	36.580	943.0	0.3608
14	29.903	908.1	0.3334	33.097	920.6	0.3378	36.083	938.3	0.3402
15	29.400	903.7	0.3156	32.497	907.0	0.3198	35.442	931.7	0.3220
16	28.694	900.5	0.2999	31.685	892.3	0.3039	34.573	922.7	0.3061
17	27.563	898.1	0.2863	30.437	876.3	0.2903	33.252	911.2	0.2923
18	26.481	890.7	0.2738	29.192	854.6	0.2775	31.890	893.1	0.2795
19	25.169	873.6	0.2623	27.663	826.6	0.2660	30.196	868.3	0.2679
20	23.090	836.8	0.2518	25.272	788.0	0.2554	27.538	829.6	0.2574
21	20.387	794.1	0.2432	22.248	750.2	0.2467	24.218	788.8	0.2486
22	16.874	741.9	0.2359	18.355	707.8	0.2394	19.947	739.7	0.2413
23	7.632	638.6	0.2313	8.310	625.5	0.2349	9.058	640.5	0.2369
24	4.430	602.7	0.2282	4.802	596.3	0.2318	5.219	604.9	0.2337

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.068	647.6	0.7396	7.181	573.5	0.7396	7.479	589.6	0.7396
2	23.896	849.6	0.7396	24.231	602.5	0.7396	25.076	648.7	0.7396
3	31.191	860.9	0.7351	31.603	607.6	0.7354	32.596	651.5	0.7360
4	34.780	879.1	0.7018	35.235	612.4	0.7025	36.283	656.8	0.7040
5	36.376	884.2	0.6577	36.868	616.6	0.6590	37.954	660.4	0.6617
6	37.138	887.4	0.6100	37.668	621.0	0.6121	38.800	664.9	0.6161
7	37.597	893.3	0.5633	38.169	625.8	0.5661	39.357	670.3	0.5717
8	37.975	902.9	0.5198	38.593	631.2	0.5235	39.842	676.3	0.5305
9	39.061	921.5	0.4802	39.737	638.0	0.4848	41.069	684.5	0.4930
10	39.202	935.6	0.4448	39.923	643.3	0.4504	41.314	690.5	0.4596
11	39.131	948.9	0.4139	39.895	648.4	0.4203	41.334	695.3	0.4304
12	38.907	961.4	0.3869	39.713	653.4	0.3942	41.192	699.3	0.4050
13	38.567	973.2	0.3633	39.420	659.0	0.3717	40.933	702.8	0.3829
14	38.111	984.3	0.3426	39.038	668.0	0.3522	40.580	705.8	0.3638
15	37.501	992.8	0.3243	38.595	688.8	0.3360	40.170	709.2	0.3480
16	36.652	998.3	0.3081	38.033	725.8	0.3232	39.687	717.4	0.3358
17	35.334	999.1	0.2941	36.969	760.2	0.3121	38.816	737.7	0.3267
18	33.935	988.9	0.2812	35.664	773.4	0.3002	37.595	746.8	0.3156
19	32.154	965.4	0.2694	33.900	775.8	0.2886	35.815	745.1	0.3042
20	29.321	919.8	0.2587	30.939	757.9	0.2773	32.734	732.2	0.2926
21	25.788	867.3	0.2499	27.214	731.8	0.2676	28.839	714.3	0.2827
22	21.227	801.0	0.2426	22.361	693.8	0.2589	23.690	684.2	0.2735
23	9.670	667.0	0.2382	10.160	616.4	0.2533	10.756	614.6	0.2673
24	5.563	619.4	0.2350	5.804	588.4	0.2479	6.105	588.2	0.2604

Table 4-62. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F7

	Assembly Number F7								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.860	617.4	0.7396	2.835	639.6	0.7396
2	0.000		0.7396	3.069	789.4	0.7396	10.402	906.9	0.7396
3	0.000		0.7396	4.476	919.2	0.7396	14.601	1082.3	0.7322
4	0.000		0.7138	5.518	952.1	0.7141	16.767	1063.8	0.6929
5	0.000		0.6571	6.172	1013.7	0.6712	17.501	1068.7	0.6414
6	0.000	Data Not	0.6020	6.561	1052.3	0.6201	17.635	1053.3	0.5882
7	0.000	Required	0.5517	6.769	1073.6	0.5678	17.603	1038.9	0.5392
8	0.000		0.5086	6.845	1081.5	0.5183	17.552	1031.4	0.4961
9	0.000		0.4714	6.982	1095.9	0.4736	17.882	1042.8	0.4580
10	0.000		0.4395	6.814	1078.3	0.4344	17.727	1043.6	0.4244
11	0.000		0.4127	6.578	1054.1	0.4014	17.510	1044.7	0.3953
12	0.000		0.3900	6.317	1027.9	0.3739	17.254	1045.0	0.3702
13	0.000		0.3708	6.048	1001.7	0.3505	16.967	1044.0	0.3483
14	0.000		0.3544	5.763	974.7	0.3306	16.626	1040.6	0.3290
15	0.000		0.3404	5.443	945.3	0.3136	16.187	1033.6	0.3121
16	0.000		0.3284	5.056	911.0	0.2990	15.571	1020.2	0.2971
17	0.000		0.3185	4.512	865.0	0.2866	14.560	993.4	0.2844
18	0.000		0.3103	4.168	837.2	0.2762	13.792	969.7	0.2727
19	0.000		0.3031	3.898	816.0	0.2671	13.045	943.8	0.2621
20	0.000		0.2969	3.604	793.6	0.2590	12.073	908.2	0.2524
21	0.000		0.2915	3.172	761.8	0.2522	10.611	856.9	0.2445
22	0.000		0.2872	2.661	725.8	0.2465	8.758	794.6	0.2380
23	0.000		0.2844	1.193	631.3	0.2427	3.917	657.3	0.2334
24	0.000		0.2829	0.720	603.2	0.2411	2.292	615.7	0.2311

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.488	615.2	0.7396	4.003	610.7	0.7396	4.050	615.9	0.7396
2	12.712	777.5	0.7396	14.473	751.0	0.7396	14.638	778.9	0.7396
3	17.513	800.2	0.7349	19.724	769.7	0.7368	19.944	818.3	0.7369
4	19.944	826.1	0.6995	22.369	793.2	0.7040	22.622	865.3	0.7044
5	20.814	839.8	0.6526	23.360	806.8	0.6604	23.632	893.7	0.6609
6	21.035	848.6	0.6035	23.663	816.1	0.6144	23.945	909.1	0.6150
7	21.067	855.2	0.5575	23.754	822.9	0.5706	24.039	913.7	0.5713
8	21.073	861.1	0.5160	23.808	828.5	0.5305	24.094	915.3	0.5312
9	21.524	873.7	0.4785	24.357	840.0	0.4937	24.647	921.5	0.4943
10	21.397	876.7	0.4448	24.259	843.5	0.4601	24.546	916.8	0.4607
11	21.190	877.7	0.4153	24.070	845.6	0.4304	24.352	909.1	0.4309
12	20.932	877.5	0.3895	23.827	847.4	0.4044	24.102	898.3	0.4049
13	20.636	876.6	0.3669	23.540	848.5	0.3813	23.808	887.7	0.3818
14	20.274	874.4	0.3470	23.185	849.3	0.3610	23.444	874.2	0.3615
15	19.802	870.9	0.3294	22.710	849.0	0.3431	22.961	862.4	0.3435
16	19.135	865.5	0.3140	22.025	846.8	0.3273	22.266	847.9	0.3277
17	18.052	858.1	0.3009	20.908	842.8	0.3140	21.138	832.2	0.3144
18	17.168	846.2	0.2888	19.949	833.9	0.3014	20.166	814.1	0.3018
19	16.254	829.3	0.2776	18.915	819.9	0.2898	19.117	793.7	0.2902
20	14.986	800.3	0.2673	17.416	793.7	0.2790	17.595	763.5	0.2794
21	13.188	768.7	0.2590	15.355	764.9	0.2705	15.511	734.4	0.2709
22	10.866	726.6	0.2521	12.656	725.5	0.2633	12.782	698.0	0.2636
23	4.815	628.0	0.2468	5.590	628.7	0.2578	5.645	618.6	0.2581
24	2.779	597.2	0.2437	3.198	597.5	0.2541	3.228	592.5	0.2545

Table 4-62. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F7

	Assembly Number F7								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.595	624.2	0.7396	5.062	610.1	0.7396	5.392	598.8	0.7396
2	16.457	799.8	0.7396	17.952	735.1	0.7396	18.981	690.2	0.7396
3	22.201	820.6	0.7379	24.019	745.3	0.7392	25.248	718.3	0.7396
4	25.044	843.4	0.7068	26.993	760.4	0.7098	28.301	704.8	0.7118
5	26.118	852.4	0.6650	28.157	770.9	0.6703	29.527	712.3	0.6739
6	26.463	857.0	0.6205	28.596	782.1	0.6280	30.041	721.4	0.6335
7	26.583	860.7	0.5777	28.813	793.8	0.5870	30.346	732.3	0.5943
8	26.664	864.5	0.5380	28.992	805.8	0.5486	30.624	744.7	0.5576
9	27.290	875.0	0.5013	29.752	822.6	0.5126	31.519	762.0	0.5230
10	27.199	876.5	0.4676	29.723	830.4	0.4792	31.584	774.3	0.4906
11	26.998	875.5	0.4376	29.557	834.9	0.4493	31.496	784.6	0.4613
12	26.727	872.4	0.4113	29.300	836.7	0.4226	31.302	793.1	0.4349
13	26.398	867.3	0.3880	28.969	836.4	0.3988	31.021	799.9	0.4112
14	25.989	860.9	0.3674	28.549	835.0	0.3778	30.639	805.1	0.3899
15	25.453	853.3	0.3492	27.994	832.6	0.3592	30.114	809.2	0.3710
16	24.694	844.3	0.3332	27.211	829.5	0.3429	29.354	812.4	0.3544
17	23.491	833.8	0.3197	25.975	825.3	0.3291	28.135	814.7	0.3405
18	22.416	819.6	0.3069	24.832	816.8	0.3161	26.976	812.5	0.3270
19	21.231	801.3	0.2951	23.538	803.2	0.3040	25.626	804.8	0.3147
20	19.491	772.8	0.2842	21.591	778.2	0.2927	23.530	784.6	0.3030
21	17.166	742.5	0.2756	19.028	750.3	0.2839	20.783	760.5	0.2939
22	14.124	704.9	0.2683	15.646	712.3	0.2763	17.103	722.9	0.2861
23	6.231	621.4	0.2628	6.899	624.5	0.2708	7.547	629.6	0.2805
24	3.546	593.8	0.2590	3.902	594.8	0.2666	4.245	597.2	0.2758

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.556	590.7	0.7396	6.027	620.8	0.7396	6.685	628.0	0.7396
2	19.481	659.7	0.7396	20.929	765.8	0.7396	22.920	788.2	0.7396
3	25.837	679.0	0.7396	27.638	824.7	0.7396	30.134	857.3	0.7396
4	28.920	668.3	0.7127	30.918	812.3	0.7142	33.720	847.6	0.7155
5	30.171	672.9	0.6757	32.316	834.4	0.6783	35.340	875.5	0.6804
6	30.722	679.8	0.6362	32.992	853.7	0.6396	36.180	896.7	0.6422
7	31.080	689.7	0.5980	33.468	872.4	0.6019	36.778	912.9	0.6044
8	31.425	702.5	0.5624	33.930	891.3	0.5664	37.338	926.0	0.5683
9	32.411	720.2	0.5289	35.067	916.4	0.5325	38.600	943.2	0.5337
10	32.554	735.8	0.4975	35.286	929.3	0.5008	38.858	948.6	0.5013
11	32.538	750.4	0.4690	35.311	936.3	0.4717	38.889	949.4	0.4717
12	32.411	764.3	0.4432	35.202	939.5	0.4454	38.761	946.8	0.4449
13	32.191	777.2	0.4198	34.985	940.0	0.4215	38.509	941.9	0.4208
14	31.864	789.0	0.3987	34.647	938.1	0.4000	38.121	935.0	0.3990
15	31.388	799.7	0.3798	34.145	933.6	0.3807	37.560	927.0	0.3796
16	30.671	809.1	0.3632	33.391	927.3	0.3637	36.736	917.5	0.3625
17	29.491	817.8	0.3492	32.158	918.3	0.3494	35.424	907.0	0.3478
18	28.350	821.9	0.3356	30.919	901.9	0.3357	34.057	890.2	0.3340
19	26.988	819.2	0.3230	29.405	877.1	0.3229	32.361	866.8	0.3213
20	24.816	802.3	0.3111	26.976	836.7	0.3110	29.631	829.7	0.3095
21	21.967	780.2	0.3018	23.836	793.4	0.3016	26.145	788.9	0.3002
22	18.098	740.8	0.2938	19.592	740.9	0.2936	21.447	738.6	0.2922
23	7.993	637.2	0.2881	8.677	638.9	0.2879	9.539	639.2	0.2865
24	4.479	600.7	0.2829	4.855	603.5	0.2829	5.335	604.2	0.2819

Table 4-63. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F8

	Assembly Number F8								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.821	614.7	0.7396	2.793	639.5	0.7396
2	0.000		0.7396	2.897	774.7	0.7396	9.991	893.2	0.7396
3	0.000		0.7396	4.168	889.3	0.7396	13.796	1048.9	0.7343
4	0.000		0.6883	5.164	920.4	0.7189	15.849	1030.1	0.6981
5	0.000		0.6240	5.910	988.5	0.6787	16.769	1040.4	0.6493
6	0.000	Data Not	0.5640	6.477	1043.9	0.6281	17.235	1034.4	0.5969
7	0.000	Required	0.5129	6.871	1084.3	0.5737	17.551	1029.8	0.5466
8	0.000		0.4705	7.099	1108.4	0.5214	17.812	1031.8	0.5011
9	0.000		0.4345	7.349	1135.5	0.4738	18.432	1053.8	0.4606
10	0.000		0.4039	7.245	1124.1	0.4324	18.523	1065.6	0.4248
11	0.000		0.3782	7.032	1101.2	0.3976	18.506	1077.6	0.3940
12	0.000		0.3566	6.745	1071.2	0.3688	18.378	1087.5	0.3677
13	0.000		0.3383	6.418	1037.9	0.3448	18.163	1094.5	0.3449
14	0.000		0.3227	6.065	1003.3	0.3246	17.867	1098.1	0.3249
15	0.000		0.3093	5.686	967.5	0.3076	17.469	1096.9	0.3074
16	0.000		0.2979	5.266	929.4	0.2931	16.914	1088.4	0.2919
17	0.000		0.2884	4.710	881.4	0.2810	15.985	1065.4	0.2783
18	0.000		0.2803	4.352	851.9	0.2707	15.254	1043.0	0.2659
19	0.000		0.2735	4.061	828.7	0.2618	14.494	1015.4	0.2545
20	0.000		0.2675	3.751	804.7	0.2539	13.442	973.4	0.2443
21	0.000		0.2623	3.326	773.0	0.2472	11.938	915.6	0.2358
22	0.000		0.2582	2.826	737.2	0.2415	10.005	844.4	0.2289
23	0.000		0.2555	1.267	635.8	0.2375	4.527	677.5	0.2240
24	0.000		0.2541	0.776	606.5	0.2357	2.695	628.0	0.2216

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.449	615.4	0.7396	3.975	611.8	0.7396	4.029	624.8	0.7396
2	12.330	780.6	0.7396	14.173	761.1	0.7396	14.358	809.8	0.7396
3	16.811	810.2	0.7367	19.203	789.5	0.7384	19.442	845.0	0.7385
4	19.180	841.6	0.7040	21.857	821.8	0.7081	22.123	884.7	0.7083
5	20.243	856.2	0.6594	23.059	838.0	0.6665	23.341	909.1	0.6668
6	20.769	862.4	0.6107	23.645	845.1	0.6203	23.936	923.1	0.6206
7	21.113	865.3	0.5630	24.011	847.8	0.5744	24.310	935.8	0.5748
8	21.400	868.0	0.5190	24.310	849.2	0.5316	24.615	945.4	0.5320
9	22.119	878.5	0.4790	25.094	857.0	0.4920	25.411	965.0	0.4924
10	22.216	879.1	0.4432	25.189	856.8	0.4563	25.509	970.0	0.4566
11	22.189	878.1	0.4122	25.154	855.8	0.4250	25.473	968.3	0.4254
12	22.045	876.4	0.3853	25.003	855.0	0.3980	25.318	961.7	0.3983
13	21.809	874.1	0.3620	24.760	854.1	0.3744	25.069	951.9	0.3746
14	21.482	870.9	0.3417	24.425	853.2	0.3537	24.727	940.6	0.3540
15	21.040	866.3	0.3237	23.965	851.0	0.3355	24.260	929.4	0.3357
16	20.413	858.8	0.3077	23.299	846.3	0.3193	23.586	916.8	0.3194
17	19.386	848.7	0.2939	22.210	839.0	0.3053	22.488	902.9	0.3055
18	18.531	836.1	0.2812	21.265	828.4	0.2923	21.530	883.2	0.2924
19	17.616	820.7	0.2695	20.227	814.2	0.2804	20.475	858.0	0.2806
20	16.288	793.9	0.2589	18.676	789.1	0.2694	18.895	816.9	0.2696
21	14.454	763.1	0.2501	16.574	759.9	0.2604	16.763	776.5	0.2607
22	12.061	722.1	0.2427	13.799	720.2	0.2528	13.950	728.2	0.2529
23	5.427	628.2	0.2375	6.196	628.2	0.2474	6.263	631.5	0.2476
24	3.181	597.2	0.2340	3.596	597.2	0.2434	3.633	599.8	0.2436

Table 4-63. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F8

	Assembly Number F8								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.589	626.0	0.7396	5.342	643.0	0.7396	6.020	643.0	0.7396
2	16.255	811.8	0.7396	18.721	872.3	0.7396	20.855	857.9	0.7396
3	21.863	843.3	0.7390	24.981	909.9	0.7388	27.611	882.8	0.7383
4	24.809	881.3	0.7097	28.243	955.4	0.7094	31.048	909.6	0.7087
5	26.173	903.1	0.6693	29.765	979.1	0.6689	32.610	915.9	0.6684
6	26.870	918.6	0.6240	30.538	990.7	0.6233	33.371	914.0	0.6232
7	27.326	931.3	0.5786	31.026	995.7	0.5776	33.836	910.4	0.5778
8	27.708	943.4	0.5357	31.424	998.1	0.5344	34.222	908.5	0.5351
9	28.626	962.9	0.4958	32.410	1008.7	0.4944	35.253	915.6	0.4956
10	28.755	968.0	0.4598	32.522	1006.1	0.4582	35.363	915.3	0.4600
11	28.717	967.6	0.4282	32.434	998.3	0.4267	35.262	913.2	0.4288
12	28.531	962.6	0.4008	32.175	987.0	0.3993	34.982	910.0	0.4016
13	28.237	955.4	0.3769	31.793	973.7	0.3755	34.572	905.6	0.3779
14	27.839	946.4	0.3559	31.295	958.7	0.3546	34.035	899.6	0.3570
15	27.307	936.2	0.3374	30.653	942.5	0.3362	33.344	892.1	0.3386
16	26.559	924.6	0.3211	29.784	925.0	0.3199	32.413	882.6	0.3223
17	25.374	911.3	0.3069	28.464	906.0	0.3058	31.016	871.1	0.3082
18	24.285	891.6	0.2938	27.193	880.9	0.2928	29.624	853.3	0.2951
19	23.044	864.3	0.2818	25.720	850.0	0.2810	27.983	829.2	0.2834
20	21.169	822.9	0.2709	23.512	807.7	0.2704	25.514	793.1	0.2727
21	18.717	780.3	0.2620	20.717	766.3	0.2616	22.440	756.3	0.2639
22	15.511	731.0	0.2543	17.104	720.0	0.2542	18.483	713.3	0.2564
23	6.961	633.2	0.2491	7.682	629.7	0.2491	8.308	627.2	0.2512
24	4.015	600.3	0.2453	4.415	599.0	0.2454	4.761	597.5	0.2475

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.335	621.0	0.7396	6.772	616.2	0.7396	7.516	637.4	0.7396
2	21.812	763.9	0.7396	23.132	745.3	0.7396	25.299	811.7	0.7396
3	28.762	773.2	0.7386	30.431	765.0	0.7394	33.102	882.5	0.7396
4	32.261	786.4	0.7096	34.158	797.5	0.7115	37.095	864.4	0.7125
5	33.848	791.8	0.6701	35.925	824.1	0.6734	39.024	885.1	0.6751
6	34.632	796.8	0.6257	36.865	848.0	0.6303	40.066	898.4	0.6327
7	35.129	803.8	0.5811	37.501	869.8	0.5867	40.773	907.8	0.5895
8	35.557	813.1	0.5390	38.060	891.0	0.5452	41.390	915.5	0.5480
9	36.659	829.1	0.5000	39.307	915.1	0.5062	42.734	928.6	0.5090
10	36.820	840.8	0.4647	39.535	926.4	0.4707	42.986	931.9	0.4733
11	36.766	851.7	0.4336	39.506	930.7	0.4392	42.957	931.9	0.4417
12	36.530	862.1	0.4065	39.270	930.7	0.4116	42.696	928.5	0.4139
13	36.160	871.6	0.3827	38.884	927.9	0.3874	42.272	923.3	0.3895
14	35.661	880.8	0.3618	38.358	923.3	0.3661	41.699	917.0	0.3681
15	35.003	888.8	0.3432	37.665	917.4	0.3473	40.951	909.7	0.3491
16	34.115	899.4	0.3269	36.730	909.5	0.3306	39.951	901.0	0.3324
17	32.806	921.5	0.3130	35.357	898.9	0.3164	38.498	890.6	0.3180
18	31.440	928.2	0.2998	33.888	882.1	0.3031	36.906	874.7	0.3046
19	29.816	932.6	0.2881	32.104	856.6	0.2911	34.942	852.1	0.2926
20	27.213	898.7	0.2770	29.250	818.1	0.2799	31.795	816.5	0.2814
21	23.939	850.6	0.2679	25.689	776.4	0.2707	27.898	777.6	0.2722
22	19.697	786.6	0.2600	21.083	726.5	0.2628	22.848	729.0	0.2643
23	8.867	657.4	0.2548	9.507	633.7	0.2576	10.340	636.4	0.2593
24	5.067	612.9	0.2509	5.414	600.2	0.2536	5.875	602.5	0.2554

Table 4-64. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F9

	Assembly Number F9								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.858	617.3	0.7396	2.940	644.2	0.7396
2	0.000		0.7396	3.023	785.5	0.7396	10.508	915.7	0.7396
3	0.000		0.7396	4.337	905.6	0.7396	14.426	1079.8	0.7314
4	0.000		0.7008	5.336	935.6	0.7144	16.461	1056.3	0.6916
5	0.000		0.6401	6.045	1001.4	0.6720	17.289	1063.5	0.6399
6	0.000	Data Not	0.5820	6.558	1052.0	0.6208	17.639	1053.7	0.5863
7	0.000	Required	0.5308	6.906	1087.9	0.5674	17.849	1045.4	0.5366
8	0.000		0.4875	7.102	1108.7	0.5164	18.022	1044.0	0.4924
9	0.000		0.4505	7.333	1133.7	0.4699	18.563	1062.7	0.4530
10	0.000		0.4188	7.221	1121.5	0.4290	18.582	1070.7	0.4182
11	0.000		0.3922	7.009	1098.8	0.3947	18.506	1079.0	0.3882
12	0.000		0.3698	6.742	1070.9	0.3662	18.348	1085.8	0.3624
13	0.000		0.3508	6.447	1040.8	0.3423	18.124	1090.2	0.3400
14	0.000		0.3346	6.129	1009.5	0.3221	17.827	1091.5	0.3204
15	0.000		0.3208	5.775	975.8	0.3050	17.423	1088.4	0.3031
16	0.000		0.3091	5.364	938.1	0.2903	16.847	1078.2	0.2878
17	0.000		0.2993	4.802	889.2	0.2780	15.883	1053.7	0.2746
18	0.000		0.2911	4.437	858.8	0.2675	15.115	1029.7	0.2626
19	0.000		0.2840	4.139	834.9	0.2583	14.318	1000.8	0.2516
20	0.000		0.2779	3.814	809.5	0.2503	13.230	958.3	0.2417
21	0.000		0.2727	3.367	776.0	0.2434	11.687	900.6	0.2335
22	0.000		0.2684	2.846	738.6	0.2377	9.733	830.7	0.2268
23	0.000		0.2657	1.271	636.0	0.2337	4.378	671.7	0.2222
24	0.000		0.2642	0.778	606.6	0.2320	2.602	624.6	0.2198

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.906	643.5	0.7396	4.760	646.6	0.7396	4.812	622.2	0.7396
2	13.857	896.8	0.7396	16.739	899.7	0.7396	16.910	788.0	0.7396
3	18.678	940.6	0.7317	22.375	949.2	0.7318	22.596	819.7	0.7319
4	21.091	984.8	0.6933	25.159	1000.6	0.6939	25.409	860.9	0.6943
5	22.031	998.3	0.6430	26.226	1018.9	0.6442	26.495	889.2	0.6448
6	22.376	997.7	0.5902	26.570	1018.7	0.5915	26.855	913.7	0.5922
7	22.548	993.1	0.5406	26.691	1011.3	0.5417	26.991	937.4	0.5425
8	22.700	990.5	0.4961	26.793	1004.2	0.4970	27.107	960.1	0.4979
9	23.339	1002.4	0.4565	27.475	1010.3	0.4575	27.807	990.1	0.4583
10	23.368	1003.6	0.4217	27.474	1006.0	0.4226	27.815	1005.5	0.4234
11	23.298	1004.4	0.3916	27.382	1002.9	0.3926	27.725	1008.9	0.3933
12	23.148	1005.3	0.3656	27.218	1000.9	0.3665	27.558	1003.7	0.3672
13	22.940	1007.3	0.3429	27.006	1000.3	0.3438	27.339	991.8	0.3444
14	22.665	1010.0	0.3230	26.738	1001.3	0.3239	27.061	974.9	0.3244
15	22.277	1012.0	0.3054	26.366	1003.6	0.3062	26.677	955.1	0.3066
16	21.691	1010.7	0.2898	25.788	1004.7	0.2905	26.087	935.8	0.2910
17	20.678	1004.7	0.2763	24.757	1002.2	0.2767	25.042	913.7	0.2771
18	19.785	989.6	0.2639	23.776	989.7	0.2642	24.043	886.2	0.2645
19	18.776	964.4	0.2526	22.598	966.2	0.2529	22.843	853.7	0.2532
20	17.285	918.4	0.2427	20.774	921.6	0.2428	20.986	807.3	0.2432
21	15.281	868.7	0.2344	18.385	872.8	0.2345	18.563	762.2	0.2349
22	12.729	808.4	0.2277	15.319	811.8	0.2277	15.460	716.0	0.2280
23	5.763	666.1	0.2230	6.984	669.7	0.2231	7.048	628.3	0.2235
24	3.398	620.3	0.2207	4.104	622.6	0.2208	4.140	598.7	0.2211

Table 4-64. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F9

	Assembly Number F9								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.455	636.4	0.7396	6.145	635.6	0.7396	6.782	637.7	0.7396
2	18.953	834.7	0.7396	21.099	824.8	0.7396	23.029	824.5	0.7396
3	25.157	863.2	0.7329	27.864	854.1	0.7338	30.284	851.7	0.7343
4	28.230	901.4	0.6964	31.260	897.6	0.6985	33.942	890.7	0.7000
5	29.468	924.6	0.6485	32.715	928.2	0.6520	35.540	912.8	0.6545
6	29.930	940.6	0.5972	33.323	949.4	0.6017	36.225	924.9	0.6051
7	30.142	952.6	0.5480	33.630	963.5	0.5531	36.577	932.1	0.5570
8	30.325	963.4	0.5034	33.876	972.9	0.5085	36.862	938.3	0.5126
9	31.134	981.2	0.4636	34.779	987.2	0.4684	37.851	952.3	0.4725
10	31.156	983.5	0.4283	34.797	986.6	0.4328	37.900	957.4	0.4369
11	31.044	979.9	0.3978	34.645	980.5	0.4020	37.766	960.4	0.4060
12	30.834	972.8	0.3715	34.379	972.0	0.3753	37.514	962.7	0.3791
13	30.558	963.6	0.3483	34.041	962.7	0.3520	37.189	964.8	0.3556
14	30.211	952.5	0.3281	33.633	953.7	0.3315	36.781	964.8	0.3350
15	29.746	939.6	0.3102	33.103	944.1	0.3134	36.229	961.2	0.3167
16	29.061	924.8	0.2943	32.341	932.9	0.2974	35.416	952.8	0.3005
17	27.906	907.9	0.2803	31.085	918.5	0.2834	34.085	940.6	0.2863
18	26.749	884.3	0.2677	29.771	896.5	0.2706	32.641	919.8	0.2733
19	25.333	853.0	0.2563	28.133	866.4	0.2592	30.813	890.4	0.2617
20	23.159	809.2	0.2462	25.620	822.4	0.2490	28.000	845.9	0.2514
21	20.405	765.9	0.2377	22.504	778.1	0.2406	24.552	799.3	0.2429
22	16.920	718.9	0.2309	18.588	728.4	0.2336	20.227	745.6	0.2359
23	7.719	630.3	0.2264	8.491	634.7	0.2292	9.262	643.0	0.2316
24	4.510	599.1	0.2240	4.939	601.7	0.2266	5.368	606.2	0.2290

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.154	632.7	0.7396	7.269	573.7	0.7396	7.452	577.7	0.7396
2	24.123	797.7	0.7396	24.448	601.1	0.7396	24.948	610.9	0.7396
3	31.618	812.9	0.7348	32.000	604.2	0.7351	32.569	612.2	0.7355
4	35.377	835.8	0.7012	35.788	607.4	0.7018	36.375	613.8	0.7028
5	37.024	847.1	0.6565	37.464	610.7	0.6577	38.067	615.3	0.6592
6	37.748	856.2	0.6079	38.225	614.9	0.6098	38.854	617.6	0.6121
7	38.147	867.3	0.5605	38.668	620.0	0.5631	39.333	620.9	0.5664
8	38.487	880.6	0.5165	39.057	625.6	0.5200	39.766	625.0	0.5242
9	39.559	900.9	0.4766	40.190	632.7	0.4810	40.961	630.7	0.4861
10	39.666	915.5	0.4411	40.351	639.0	0.4463	41.176	635.7	0.4525
11	39.582	928.2	0.4101	40.317	644.9	0.4163	41.194	640.6	0.4234
12	39.379	940.8	0.3831	40.161	650.5	0.3903	41.089	645.4	0.3984
13	39.099	952.6	0.3595	39.928	656.2	0.3676	40.906	650.1	0.3767
14	38.733	963.8	0.3387	39.608	661.7	0.3478	40.636	654.9	0.3578
15	38.217	973.4	0.3202	39.139	667.4	0.3302	40.217	659.7	0.3413
16	37.429	980.2	0.3038	38.396	673.0	0.3147	39.525	664.6	0.3268
17	36.106	982.4	0.2894	37.114	678.0	0.3013	38.293	669.5	0.3144
18	34.627	972.9	0.2763	35.656	680.6	0.2889	36.868	672.7	0.3029
19	32.711	949.5	0.2645	33.736	680.1	0.2777	34.955	673.4	0.2924
20	29.721	904.2	0.2540	30.688	673.0	0.2675	31.853	668.1	0.2827
21	26.059	852.5	0.2453	26.939	662.3	0.2591	28.017	659.7	0.2749
22	21.446	787.7	0.2382	22.160	642.4	0.2516	23.052	642.0	0.2672
23	9.841	661.0	0.2339	10.146	595.5	0.2462	10.533	595.9	0.2609
24	5.691	615.8	0.2311	5.837	577.8	0.2414	6.025	578.2	0.2540

Table 4-65. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F10

	Assembly Number F10								
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.866	617.8	0.7396	2.942	644.0	0.7396
2	0.000		0.7396	3.039	786.9	0.7396	10.536	916.4	0.7396
3	0.000		0.7355	4.388	910.6	0.7396	14.539	1084.0	0.7314
4	0.000		0.6717	5.470	947.7	0.7163	16.667	1060.7	0.6916
5	0.000		0.6035	6.310	1027.2	0.6733	17.591	1065.8	0.6396
6	0.000	Data Not	0.5424	6.936	1091.1	0.6193	18.016	1053.6	0.5853
7	0.000	Required	0.4923	7.310	1131.2	0.5612	18.251	1045.3	0.5339
8	0.000		0.4515	7.438	1145.3	0.5060	18.390	1045.9	0.4879
9	0.000		0.4174	7.589	1162.1	0.4577	18.901	1067.7	0.4478
10	0.000		0.3886	7.407	1141.9	0.4167	18.906	1079.2	0.4128
11	0.000		0.3644	7.141	1112.9	0.3830	18.841	1091.7	0.3830
12	0.000		0.3440	6.827	1079.7	0.3552	18.710	1103.2	0.3573
13	0.000		0.3267	6.484	1044.6	0.3320	18.509	1112.2	0.3350
14	0.000		0.3118	6.121	1008.7	0.3127	18.226	1117.3	0.3154
15	0.000		0.2990	5.739	972.4	0.2964	17.831	1116.5	0.2982
16	0.000		0.2882	5.323	934.5	0.2827	17.269	1107.2	0.2830
17	0.000		0.2790	4.769	886.4	0.2712	16.315	1082.1	0.2697
18	0.000		0.2713	4.407	856.4	0.2615	15.549	1057.4	0.2576
19	0.000		0.2646	4.100	831.8	0.2530	14.735	1027.2	0.2467
20	0.000		0.2588	3.761	805.5	0.2455	13.613	982.4	0.2368
21	0.000		0.2539	3.311	771.9	0.2391	12.038	921.6	0.2286
22	0.000		0.2499	2.810	736.1	0.2338	10.072	848.4	0.2218
23	0.000		0.2472	1.273	636.2	0.2301	4.582	679.4	0.2172
24	0.000		0.2458	0.786	607.1	0.2285	2.741	629.3	0.2149

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.603	615.9	0.7396	4.107	609.6	0.7396	4.130	586.4	0.7396
2	12.852	778.1	0.7396	14.574	746.3	0.7396	14.653	657.1	0.7396
3	17.466	801.7	0.7342	19.649	766.7	0.7362	19.752	671.4	0.7363
4	19.858	827.5	0.6983	22.267	791.4	0.7031	22.384	687.5	0.7034
5	20.902	839.6	0.6509	23.428	804.5	0.6591	23.557	701.6	0.6596
6	21.390	846.0	0.6007	23.989	812.8	0.6118	24.129	714.8	0.6126
7	21.674	851.0	0.5524	24.322	818.4	0.5658	24.474	729.4	0.5669
8	21.864	856.2	0.5083	24.557	823.6	0.5233	24.721	744.4	0.5247
9	22.494	868.6	0.4689	25.283	834.8	0.4847	25.462	763.5	0.4863
10	22.525	871.3	0.4340	25.343	838.3	0.4501	25.529	772.5	0.4519
11	22.469	872.2	0.4039	25.303	840.2	0.4198	25.494	779.1	0.4216
12	22.336	872.0	0.3776	25.182	841.6	0.3933	25.374	780.4	0.3951
13	22.125	871.0	0.3547	24.981	842.8	0.3700	25.172	779.1	0.3717
14	21.823	869.0	0.3346	24.687	843.7	0.3495	24.874	773.9	0.3512
15	21.401	866.2	0.3168	24.264	843.6	0.3315	24.447	768.6	0.3331
16	20.793	861.4	0.3012	23.639	841.6	0.3155	23.818	763.5	0.3170
17	19.773	854.6	0.2878	22.587	837.8	0.3019	22.759	754.5	0.3034
18	18.907	844.3	0.2753	21.657	830.3	0.2891	21.821	744.4	0.2905
19	17.953	830.2	0.2640	20.601	818.4	0.2774	20.753	729.4	0.2788
20	16.564	804.0	0.2536	19.003	794.7	0.2666	19.140	711.2	0.2679
21	14.670	773.8	0.2451	16.864	767.8	0.2579	16.994	702.8	0.2593
22	12.248	732.6	0.2379	14.071	728.8	0.2504	14.216	720.8	0.2523
23	5.538	632.5	0.2327	6.351	632.1	0.2450	6.422	635.8	0.2469
24	3.261	599.7	0.2292	3.703	599.5	0.2407	3.741	600.8	0.2425

Table 4-65. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly F10

	Assembly Number F10								
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.377	587.9	0.7396	4.714	595.6	0.7396	5.192	617.3	0.7396
2	15.501	662.7	0.7396	16.638	689.4	0.7396	18.182	764.4	0.7396
3	20.849	676.8	0.7374	22.324	707.1	0.7385	24.269	785.4	0.7393
4	23.631	693.9	0.7061	25.317	730.4	0.7092	27.457	812.0	0.7112
5	24.924	707.9	0.6647	26.777	749.3	0.6705	29.019	826.2	0.6738
6	25.611	721.5	0.6206	27.601	765.2	0.6289	29.898	834.0	0.6334
7	26.072	735.5	0.5776	28.175	778.5	0.5882	30.502	838.3	0.5933
8	26.434	749.7	0.5377	28.629	789.6	0.5499	30.984	842.3	0.5554
9	27.311	766.8	0.5013	29.616	803.0	0.5143	32.040	852.3	0.5199
10	27.453	776.4	0.4680	29.797	807.8	0.4814	32.242	855.3	0.4869
11	27.458	781.6	0.4383	29.804	808.1	0.4516	32.260	856.9	0.4568
12	27.350	783.1	0.4117	29.670	804.8	0.4246	32.132	857.8	0.4295
13	27.137	781.7	0.3879	29.415	799.7	0.4003	31.876	857.7	0.4050
14	26.814	778.5	0.3668	29.036	792.8	0.3786	31.485	855.9	0.3831
15	26.349	773.6	0.3480	28.506	785.0	0.3593	30.928	852.0	0.3636
16	25.671	767.3	0.3315	27.751	775.8	0.3424	30.129	845.6	0.3464
17	24.556	760.2	0.3175	26.549	765.5	0.3280	28.863	836.4	0.3318
18	23.533	749.6	0.3040	25.407	751.7	0.3142	27.613	821.1	0.3178
19	22.375	738.5	0.2919	24.094	734.1	0.3016	26.146	799.9	0.3050
20	20.682	728.7	0.2811	22.179	709.5	0.2902	23.991	767.9	0.2935
21	18.394	711.7	0.2724	19.670	685.9	0.2810	21.231	735.8	0.2842
22	15.349	680.9	0.2646	16.356	658.1	0.2728	17.610	698.3	0.2759
23	6.907	610.9	0.2586	7.337	601.8	0.2664	7.904	620.9	0.2695
24	3.996	587.4	0.2531	4.224	582.9	0.2606	4.537	594.1	0.2637

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.617	643.8	0.7396	6.068	618.0	0.7396	6.897	646.9	0.7396
2	19.485	851.8	0.7396	20.929	765.1	0.7396	23.432	858.3	0.7396
3	25.834	866.1	0.7394	27.702	836.3	0.7396	30.767	941.8	0.7396
4	29.102	885.4	0.7115	31.223	830.8	0.7134	34.510	909.8	0.7134
5	30.682	889.8	0.6745	32.975	857.3	0.6775	36.334	919.4	0.6776
6	31.566	891.1	0.6343	33.985	877.4	0.6381	37.348	920.0	0.6381
7	32.184	894.5	0.5943	34.698	892.8	0.5985	38.040	917.1	0.5985
8	32.693	901.2	0.5564	35.287	906.0	0.5605	38.613	915.0	0.5603
9	33.819	918.7	0.5207	36.512	922.7	0.5245	39.882	920.9	0.5242
10	34.069	931.0	0.4875	36.787	926.9	0.4908	40.152	920.2	0.4906
11	34.137	944.0	0.4574	36.849	925.9	0.4602	40.192	917.3	0.4600
12	34.060	957.4	0.4300	36.747	921.6	0.4325	40.051	912.1	0.4323
13	33.854	970.7	0.4053	36.508	916.1	0.4076	39.764	905.7	0.4075
14	33.509	983.2	0.3832	36.126	909.9	0.3853	39.332	899.1	0.3852
15	32.992	994.2	0.3635	35.567	902.9	0.3655	38.719	892.0	0.3654
16	32.220	1001.6	0.3460	34.745	894.6	0.3479	37.838	884.4	0.3479
17	30.964	1004.4	0.3312	33.429	884.8	0.3329	36.452	875.4	0.3329
18	29.681	995.3	0.3170	32.046	868.7	0.3187	34.955	860.9	0.3187
19	28.130	972.3	0.3041	30.342	844.7	0.3057	33.075	839.1	0.3058
20	25.793	924.6	0.2925	27.749	806.1	0.2941	30.183	803.4	0.2943
21	22.822	872.4	0.2832	24.483	763.9	0.2847	26.568	763.7	0.2849
22	18.920	807.6	0.2749	20.216	714.7	0.2763	21.857	716.0	0.2767
23	8.526	668.8	0.2685	9.115	627.8	0.2701	9.875	629.7	0.2706
24	4.890	621.0	0.2628	5.204	596.5	0.2646	5.616	598.1	0.2654

Table 4-66. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G1

	Assembly Number G1								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.677	617.3	0.7396	1.261	617.9	0.7396
2	0.000		0.7396	2.413	788.6	0.7396	4.533	796.0	0.7396
3	0.000		0.7396	3.316	892.7	0.7396	6.365	923.9	0.7396
4	0.000		0.7236	3.837	894.4	0.7236	7.463	939.5	0.7208
5	0.000		0.6924	4.066	919.5	0.6924	7.935	972.5	0.6867
6	0.000	Data Not	0.6538	4.143	928.1	0.6538	8.065	979.9	0.6452
7	0.000	Required	0.6118	4.157	929.7	0.6118	8.047	975.4	0.6010
8	0.000		0.5694	4.163	930.4	0.5694	8.000	968.1	0.5573
9	0.000		0.5287	4.314	947.6	0.5287	8.200	974.9	0.5164
10	0.000		0.4913	4.292	945.0	0.4913	8.120	966.9	0.4795
11	0.000		0.4584	4.248	940.0	0.4584	8.015	958.5	0.4473
12	0.000		0.4297	4.192	933.7	0.4297	7.901	950.7	0.4193
13	0.000		0.4046	4.130	926.7	0.4046	7.786	943.5	0.3947
14	0.000		0.3823	4.058	918.6	0.3823	7.662	936.6	0.3729
15	0.000		0.3625	3.967	908.6	0.3625	7.503	927.6	0.3536
16	0.000		0.3452	3.830	893.7	0.3452	7.259	913.7	0.3367
17	0.000		0.3301	3.530	861.9	0.3301	6.723	883.7	0.3219
18	0.000		0.3173	3.345	842.9	0.3173	6.368	862.7	0.3092
19	0.000		0.3060	3.146	823.0	0.3060	5.980	840.1	0.2981
20	0.000		0.2962	2.879	797.0	0.2962	5.461	810.8	0.2885
21	0.000		0.2879	2.486	760.3	0.2879	4.698	769.7	0.2804
22	0.000		0.2813	2.013	718.3	0.2813	3.780	723.1	0.2740
23	0.000		0.2772	0.830	622.8	0.2772	1.578	626.3	0.2699
24	0.000		0.2754	0.478	596.6	0.2754	0.897	597.5	0.2683

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.288	591.2	0.7396	1.896	632.0	0.7396	2.488	624.3	0.7396
2	4.641	696.2	0.7396	6.908	870.8	0.7396	9.077	828.0	0.7396
3	6.557	820.8	0.7396	9.736	1033.4	0.7396	12.558	927.9	0.7396
4	7.793	986.6	0.7213	11.424	1032.6	0.7146	14.510	905.3	0.7151
5	8.332	1106.9	0.6870	12.053	1048.4	0.6761	15.251	921.1	0.6775
6	8.474	1130.1	0.6448	12.147	1039.9	0.6306	15.413	930.8	0.6331
7	8.453	1124.2	0.5997	12.054	1027.4	0.5834	15.371	938.2	0.5870
8	8.397	1106.9	0.5555	11.940	1017.4	0.5386	15.300	944.4	0.5427
9	8.597	1106.9	0.5143	12.184	1025.0	0.4979	15.654	960.6	0.5020
10	8.505	1084.3	0.4774	12.034	1015.0	0.4616	15.498	959.8	0.4655
11	8.388	1062.1	0.4451	11.844	1002.6	0.4302	15.276	955.0	0.4340
12	8.259	1035.1	0.4171	11.631	988.5	0.4030	15.015	947.9	0.4065
13	8.130	1010.5	0.3926	11.409	973.2	0.3794	14.737	939.8	0.3826
14	7.990	983.2	0.3710	11.170	957.2	0.3587	14.437	931.0	0.3616
15	7.815	956.7	0.3518	10.886	939.8	0.3404	14.086	921.4	0.3431
16	7.552	926.1	0.3350	10.493	919.6	0.3242	13.615	910.4	0.3267
17	6.988	883.1	0.3204	9.731	889.7	0.3102	12.746	895.5	0.3125
18	6.612	852.1	0.3078	9.167	862.2	0.2982	12.041	876.2	0.3002
19	6.200	818.2	0.2969	8.539	831.8	0.2879	11.223	851.0	0.2896
20	5.654	781.7	0.2874	7.716	794.3	0.2790	10.111	814.1	0.2804
21	4.857	738.0	0.2794	6.568	749.4	0.2716	8.603	770.4	0.2729
22	3.903	694.5	0.2731	5.222	702.2	0.2659	6.804	718.8	0.2670
23	1.629	614.4	0.2691	2.179	617.6	0.2621	2.833	623.2	0.2632
24	0.925	590.4	0.2675	1.228	592.2	0.2607	1.580	594.5	0.2616

Table 4-66. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G1

	Assembly Number G1								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	2.926	612.3	0.7396	3.144	601.4	0.7396	3.833	651.0	0.7396
2	10.625	765.0	0.7396	11.372	714.4	0.7396	13.764	932.4	0.7396
3	14.523	830.1	0.7396	15.455	757.8	0.7396	18.526	1071.9	0.7396
4	16.649	811.8	0.7175	17.657	743.4	0.7194	20.999	1040.0	0.7153
5	17.482	824.6	0.6821	18.537	753.1	0.6856	21.954	1054.6	0.6790
6	17.723	835.8	0.6400	18.832	764.3	0.6454	22.241	1053.0	0.6367
7	17.762	847.4	0.5962	18.937	778.2	0.6033	22.315	1047.0	0.5933
8	17.775	859.6	0.5536	19.028	795.0	0.5624	22.381	1042.2	0.5517
9	18.273	881.0	0.5139	19.643	820.9	0.5240	23.055	1053.6	0.5131
10	18.176	890.0	0.4779	19.620	837.7	0.4887	23.000	1047.4	0.4781
11	17.990	895.5	0.4462	19.494	851.7	0.4572	22.829	1038.7	0.4470
12	17.749	898.5	0.4184	19.302	863.2	0.4293	22.586	1028.9	0.4194
13	17.482	900.2	0.3939	19.077	873.2	0.4045	22.310	1019.2	0.3950
14	17.183	900.4	0.3723	18.815	882.2	0.3825	21.999	1010.0	0.3734
15	16.824	899.2	0.3532	18.488	890.0	0.3630	21.626	1001.5	0.3542
16	16.333	896.1	0.3363	18.022	896.1	0.3457	21.107	991.7	0.3372
17	15.428	890.6	0.3217	17.134	900.3	0.3308	20.150	979.1	0.3223
18	14.648	879.2	0.3088	16.341	897.1	0.3175	19.232	956.8	0.3092
19	13.705	860.6	0.2976	15.349	885.1	0.3058	18.047	923.4	0.2976
20	12.351	825.8	0.2877	13.859	852.6	0.2955	16.222	868.3	0.2877
21	10.561	787.1	0.2799	11.904	814.9	0.2872	13.902	812.2	0.2797
22	8.366	735.9	0.2735	9.458	760.7	0.2806	11.013	749.2	0.2733
23	3.477	629.1	0.2694	3.930	638.4	0.2762	4.577	634.5	0.2691
24	1.923	597.2	0.2676	2.161	601.4	0.2739	2.509	600.3	0.2670

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.650	645.5	0.7396
2	16.427	881.3	0.7396
3	21.842	981.2	0.7396
4	24.558	946.7	0.7141
5	25.596	958.3	0.6773
6	25.910	962.1	0.6347
7	25.989	962.8	0.5909
8	26.058	963.2	0.5490
9	26.810	974.3	0.5103
10	26.736	971.6	0.4752
11	26.524	965.7	0.4440
12	26.229	958.4	0.4165
13	25.894	950.1	0.3923
14	25.527	942.4	0.3708
15	25.096	934.4	0.3516
16	24.520	926.6	0.3347
17	23.502	918.4	0.3198
18	22.483	904.9	0.3066
19	21.141	884.4	0.2950
20	19.007	845.4	0.2851
21	16.329	802.5	0.2770
22	12.949	747.3	0.2706
23	5.405	636.0	0.2663
24	2.954	601.0	0.2643

Table 4-67. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G2

	Assembly Number G2								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.861	633.9	0.7396	1.587	632.8	0.7396
2	0.000		0.7396	3.018	857.0	0.7396	5.646	863.8	0.7396
3	0.000		0.7355	4.104	923.8	0.7355	7.863	957.4	0.7343
4	0.000		0.7028	4.703	993.4	0.7028	9.105	1049.3	0.6992
5	0.000		0.6572	4.945	1023.1	0.6572	9.600	1087.9	0.6502
6	0.000	Data Not	0.6050	5.007	1030.9	0.6050	9.713	1095.9	0.5949
7	0.000	Required	0.5527	4.999	1029.9	0.5527	9.680	1092.0	0.5407
8	0.000		0.5051	4.983	1027.9	0.5051	9.619	1085.0	0.4924
9	0.000		0.4632	5.140	1047.7	0.4632	9.850	1096.5	0.4506
10	0.000		0.4267	5.114	1044.4	0.4267	9.782	1090.0	0.4145
11	0.000		0.3954	5.076	1039.6	0.3954	9.707	1084.2	0.3836
12	0.000		0.3682	5.038	1034.8	0.3682	9.637	1079.3	0.3568
13	0.000		0.3445	5.008	1031.0	0.3445	9.584	1075.7	0.3336
14	0.000		0.3238	4.983	1027.9	0.3238	9.550	1074.3	0.3132
15	0.000		0.3054	4.946	1023.2	0.3054	9.491	1070.9	0.2952
16	0.000		0.2891	4.856	1012.1	0.2891	9.329	1060.0	0.2792
17	0.000		0.2748	4.559	976.2	0.2748	8.799	1025.3	0.2651
18	0.000		0.2625	4.368	953.8	0.2625	8.415	997.5	0.2531
19	0.000		0.2517	4.131	926.8	0.2517	7.940	964.3	0.2425
20	0.000		0.2424	3.788	889.2	0.2424	7.260	919.3	0.2334
21	0.000		0.2345	3.290	837.4	0.2345	6.282	859.0	0.2258
22	0.000		0.2282	2.710	781.0	0.2282	5.135	793.1	0.2198
23	0.000		0.2242	1.160	648.3	0.2242	2.228	655.3	0.2158
24	0.000		0.2225	0.695	612.7	0.2225	1.317	615.1	0.2142

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.656	644.0	0.7396	2.386	647.5	0.7396	3.082	636.3	0.7396
2	5.903	930.2	0.7396	8.579	940.6	0.7396	11.049	872.8	0.7396
3	8.225	1042.2	0.7340	11.755	1015.2	0.7324	14.925	917.1	0.7333
4	9.514	1130.1	0.6984	13.352	1069.3	0.6946	16.847	964.4	0.6969
5	10.019	1149.7	0.6489	13.905	1078.0	0.6435	17.561	988.7	0.6476
6	10.130	1145.8	0.5933	13.983	1072.0	0.5873	17.730	1002.8	0.5930
7	10.089	1130.1	0.5390	13.900	1064.5	0.5332	17.704	1011.7	0.5399
8	10.022	1118.4	0.4908	13.807	1059.8	0.4856	17.649	1017.7	0.4923
9	10.257	1126.2	0.4492	14.114	1072.8	0.4444	18.069	1035.8	0.4509
10	10.180	1108.8	0.4131	13.996	1065.4	0.4090	17.933	1032.9	0.4151
11	10.094	1088.0	0.3823	13.846	1053.9	0.3787	17.735	1025.2	0.3845
12	10.011	1063.9	0.3557	13.682	1039.6	0.3526	17.500	1013.9	0.3580
13	9.946	1042.2	0.3327	13.527	1023.9	0.3300	17.261	1000.8	0.3351
14	9.898	1017.5	0.3124	13.383	1007.5	0.3103	17.026	986.7	0.3151
15	9.826	995.0	0.2945	13.212	990.9	0.2929	16.756	971.7	0.2975
16	9.649	969.8	0.2786	12.927	973.0	0.2774	16.363	955.6	0.2820
17	9.100	938.9	0.2646	12.233	949.6	0.2638	15.546	937.6	0.2684
18	8.698	910.5	0.2526	11.665	923.6	0.2521	14.810	913.6	0.2566
19	8.200	875.6	0.2422	10.953	891.2	0.2419	13.876	882.9	0.2462
20	7.490	832.2	0.2331	9.930	845.9	0.2331	12.505	836.9	0.2373
21	6.473	779.0	0.2256	8.526	793.2	0.2258	10.719	789.3	0.2300
22	5.282	723.2	0.2196	6.870	734.3	0.2200	8.586	733.7	0.2242
23	2.289	625.0	0.2157	2.954	629.6	0.2163	3.668	629.0	0.2204
24	1.351	596.6	0.2141	1.717	598.6	0.2147	2.104	597.7	0.2185

Table 4-67. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G2

	Assembly Number G2								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.661	630.2	0.7396	3.983	622.4	0.7396	4.221	589.6	0.7396
2	13.012	829.7	0.7396	14.064	787.1	0.7396	14.888	670.3	0.7396
3	17.404	860.2	0.7343	18.705	805.5	0.7354	19.810	690.1	0.7366
4	19.562	895.6	0.6997	20.965	828.4	0.7019	22.260	714.5	0.7049
5	20.393	913.8	0.6525	21.846	839.8	0.6564	23.295	734.8	0.6623
6	20.633	924.9	0.6001	22.133	850.7	0.6055	23.725	754.3	0.6148
7	20.663	933.9	0.5486	22.220	864.2	0.5555	23.948	773.2	0.5680
8	20.664	942.9	0.5019	22.291	881.0	0.5098	24.148	791.6	0.5252
9	21.209	963.4	0.4607	22.949	908.8	0.4691	24.959	814.0	0.4863
10	21.108	969.2	0.4247	22.916	926.0	0.4333	24.996	824.5	0.4515
11	20.928	972.2	0.3938	22.794	941.0	0.4022	24.900	828.4	0.4205
12	20.698	973.0	0.3670	22.613	953.8	0.3751	24.715	827.8	0.3931
13	20.452	971.9	0.3436	22.409	965.0	0.3515	24.487	824.2	0.3687
14	20.199	968.9	0.3232	22.190	974.1	0.3307	24.231	818.7	0.3471
15	19.899	963.9	0.3051	21.916	981.1	0.3123	23.911	811.8	0.3279
16	19.463	956.8	0.2892	21.496	985.5	0.2960	23.435	803.5	0.3109
17	18.589	947.4	0.2754	20.624	986.1	0.2818	22.500	794.4	0.2963
18	17.752	931.2	0.2632	19.753	976.8	0.2692	21.534	780.7	0.2832
19	16.660	906.3	0.2525	18.584	956.2	0.2582	20.231	761.9	0.2716
20	14.998	862.3	0.2432	16.745	910.6	0.2486	18.182	733.2	0.2613
21	12.888	815.9	0.2357	14.428	860.1	0.2408	15.636	703.2	0.2530
22	10.323	758.1	0.2297	11.570	793.7	0.2345	12.493	667.5	0.2460
23	4.406	639.4	0.2257	4.945	653.7	0.2305	5.316	602.9	0.2413
24	2.504	603.1	0.2237	2.796	610.5	0.2282	2.986	582.7	0.2380

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.853	625.1	0.7396
2	16.950	797.5	0.7396
3	22.453	828.1	0.7368
4	25.199	864.6	0.7059
5	26.450	892.3	0.6644
6	27.175	931.6	0.6186
7	27.533	950.3	0.5725
8	27.785	957.6	0.5296
9	28.718	974.9	0.4906
10	28.829	985.5	0.4558
11	28.717	983.2	0.4245
12	28.468	974.0	0.3966
13	28.157	962.2	0.3719
14	27.810	949.4	0.3501
15	27.392	935.9	0.3307
16	26.810	921.5	0.3136
17	25.761	906.2	0.2990
18	24.640	885.9	0.2858
19	23.129	859.5	0.2742
20	20.739	817.8	0.2638
21	17.818	774.5	0.2555
22	14.205	723.4	0.2485
23	6.066	628.7	0.2437
24	3.391	597.5	0.2403

Table 4-68. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G3

	Assembly Number G3								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.739	622.8	0.7396	1.360	621.7	0.7396
2	0.000		0.7396	2.640	813.7	0.7396	4.908	815.3	0.7396
3	0.000		0.7396	3.623	930.8	0.7396	6.887	956.0	0.7396
4	0.000		0.7155	4.169	931.1	0.7155	8.024	970.6	0.7134
5	0.000		0.6790	4.383	955.5	0.6790	8.464	1002.3	0.6747
6	0.000	Data Not	0.6359	4.432	961.2	0.6359	8.544	1006.7	0.6291
7	0.000	Required	0.5908	4.420	959.8	0.5908	8.484	999.9	0.5821
8	0.000		0.5466	4.404	958.0	0.5466	8.406	991.1	0.5371
9	0.000		0.5057	4.545	974.5	0.5057	8.594	997.7	0.4962
10	0.000		0.4689	4.512	970.6	0.4689	8.497	988.7	0.4598
11	0.000		0.4369	4.457	964.2	0.4369	8.376	979.5	0.4283
12	0.000		0.4092	4.391	956.5	0.4092	8.249	971.0	0.4011
13	0.000		0.3848	4.321	948.4	0.3848	8.124	963.4	0.3772
14	0.000		0.3633	4.244	939.6	0.3633	7.992	955.9	0.3561
15	0.000		0.3444	4.150	928.9	0.3444	7.832	947.0	0.3375
16	0.000		0.3277	4.013	913.7	0.3277	7.589	932.9	0.3211
17	0.000		0.3133	3.711	880.9	0.3133	7.053	902.5	0.3069
18	0.000		0.3009	3.524	861.3	0.3009	6.697	881.2	0.2945
19	0.000		0.2900	3.320	840.4	0.2900	6.300	857.5	0.2838
20	0.000		0.2806	3.040	812.6	0.2806	5.760	826.7	0.2744
21	0.000		0.2725	2.626	773.2	0.2725	4.958	782.8	0.2666
22	0.000		0.2662	2.124	728.0	0.2662	3.987	732.9	0.2604
23	0.000		0.2622	0.877	626.4	0.2622	1.665	629.9	0.2564
24	0.000		0.2605	0.506	598.6	0.2605	0.948	599.5	0.2548

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.415	626.0	0.7396	2.005	629.8	0.7396	2.509	614.3	0.7396
2	5.114	843.3	0.7396	7.289	855.8	0.7396	9.114	779.4	0.7396
3	7.188	1011.6	0.7396	10.144	991.3	0.7395	12.488	853.8	0.7396
4	8.375	1022.7	0.7130	11.621	967.8	0.7115	14.183	835.2	0.7153
5	8.831	1051.2	0.6740	12.123	975.3	0.6718	14.793	849.2	0.6784
6	8.910	1049.4	0.6281	12.176	971.1	0.6257	14.932	860.5	0.6354
7	8.843	1036.9	0.5809	12.073	965.2	0.5787	14.913	871.7	0.5910
8	8.758	1024.5	0.5358	11.961	960.9	0.5339	14.883	882.7	0.5482
9	8.946	1024.5	0.4949	12.212	971.1	0.4935	15.277	902.4	0.5084
10	8.841	1010.5	0.4586	12.074	965.7	0.4575	15.171	906.8	0.4724
11	8.709	991.6	0.4272	11.894	958.0	0.4264	14.993	907.1	0.4408
12	8.571	973.1	0.4001	11.696	948.4	0.3995	14.774	904.2	0.4132
13	8.434	953.4	0.3762	11.489	937.3	0.3759	14.534	899.6	0.3889
14	8.290	934.1	0.3553	11.268	925.3	0.3551	14.271	893.8	0.3675
15	8.117	913.6	0.3368	11.009	912.1	0.3368	13.963	887.1	0.3486
16	7.859	890.6	0.3205	10.647	896.4	0.3206	13.543	879.2	0.3320
17	7.301	857.9	0.3063	9.923	871.9	0.3066	12.734	867.8	0.3177
18	6.927	832.2	0.2941	9.394	849.7	0.2945	12.092	852.8	0.3050
19	6.511	805.8	0.2834	8.796	824.3	0.2839	11.339	832.8	0.2939
20	5.947	773.8	0.2742	7.988	791.6	0.2748	10.281	801.5	0.2841
21	5.115	735.6	0.2664	6.834	750.4	0.2671	8.809	763.4	0.2762
22	4.109	693.3	0.2602	5.451	704.9	0.2611	7.006	715.8	0.2697
23	1.717	615.5	0.2563	2.280	618.9	0.2572	2.924	622.2	0.2657
24	0.977	591.5	0.2547	1.287	593.0	0.2556	1.632	593.8	0.2637

Table 4-68. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G3

	Assembly Number G3								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	2.868	602.4	0.7396	3.047	593.7	0.7396	3.364	600.1	0.7396
2	10.368	721.8	0.7396	10.979	683.8	0.7396	12.141	720.7	0.7396
3	14.064	769.2	0.7396	14.819	716.2	0.7396	16.513	806.4	0.7396
4	15.897	755.1	0.7189	16.710	704.8	0.7206	19.079	869.3	0.7224
5	16.589	765.7	0.6848	17.441	712.4	0.6881	20.182	930.7	0.6905
6	16.811	776.6	0.6450	17.710	721.6	0.6502	20.656	966.6	0.6526
7	16.885	789.0	0.6036	17.848	734.3	0.6109	21.035	1010.6	0.6127
8	16.959	803.1	0.5633	17.998	749.8	0.5725	21.296	1031.6	0.5727
9	17.511	825.0	0.5254	18.663	773.3	0.5363	22.081	1054.8	0.5344
10	17.489	836.9	0.4904	18.721	790.4	0.5025	22.164	1059.7	0.4992
11	17.369	845.2	0.4591	18.673	806.2	0.4720	22.078	1052.3	0.4675
12	17.191	851.1	0.4312	18.555	819.6	0.4444	21.891	1038.9	0.4391
13	16.979	855.2	0.4063	18.395	831.3	0.4195	21.656	1024.5	0.4137
14	16.734	857.9	0.3843	18.195	841.7	0.3971	21.381	1010.4	0.3912
15	16.435	859.2	0.3647	17.935	850.7	0.3772	21.046	996.5	0.3711
16	16.017	859.5	0.3475	17.549	858.2	0.3596	20.578	981.5	0.3535
17	15.200	858.3	0.3329	16.758	864.4	0.3447	19.694	964.8	0.3384
18	14.518	852.5	0.3196	16.078	864.9	0.3310	18.886	942.3	0.3249
19	13.678	839.9	0.3078	15.209	858.0	0.3188	17.871	917.3	0.3132
20	12.424	812.3	0.2973	13.847	832.9	0.3078	16.189	865.0	0.3026
21	10.713	779.9	0.2889	12.000	802.4	0.2991	13.982	809.9	0.2940
22	8.548	733.4	0.2821	9.612	754.9	0.2919	11.158	748.0	0.2870
23	3.563	628.6	0.2776	4.007	636.8	0.2872	4.651	634.2	0.2822
24	1.969	596.6	0.2749	2.201	600.4	0.2839	2.547	600.1	0.2792

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	3.952	620.4	0.7396
2	14.171	793.3	0.7396
3	19.168	880.1	0.7396
4	22.034	866.6	0.7224
5	23.271	883.7	0.6908
6	23.785	888.9	0.6532
7	24.150	887.1	0.6136
8	24.399	885.5	0.5740
9	25.240	892.8	0.5360
10	25.293	888.9	0.5010
11	25.158	882.6	0.4693
12	24.912	875.0	0.4409
13	24.612	866.8	0.4156
14	24.271	858.5	0.3931
15	23.868	850.0	0.3731
16	23.327	841.0	0.3554
17	22.362	831.1	0.3403
18	21.430	816.3	0.3267
19	20.240	795.8	0.3149
20	18.273	763.5	0.3043
21	15.753	729.6	0.2958
22	12.536	689.1	0.2887
23	5.220	612.2	0.2838
24	2.850	588.4	0.2807

Table 4-69. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G4

	Assembly Number G4								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.880	635.6	0.7396	1.589	631.0	0.7396
2	0.000		0.7396	3.092	865.8	0.7396	5.678	858.0	0.7396
3	0.000		0.7345	4.229	937.9	0.7345	7.964	954.2	0.7340
4	0.000		0.7002	4.858	1012.3	0.7002	9.249	1047.6	0.6984
5	0.000		0.6526	5.096	1042.1	0.6526	9.734	1085.3	0.6488
6	0.000	Data Not	0.5988	5.135	1047.1	0.5988	9.811	1091.2	0.5930
7	0.000	Required	0.5457	5.102	1042.9	0.5457	9.738	1085.0	0.5386
8	0.000		0.4980	5.065	1038.2	0.4980	9.644	1076.2	0.4904
9	0.000		0.4565	5.206	1056.2	0.4565	9.847	1085.8	0.4489
10	0.000		0.4205	5.160	1050.3	0.4205	9.745	1077.1	0.4131
11	0.000		0.3897	5.100	1042.6	0.3897	9.632	1069.0	0.3825
12	0.000		0.3632	5.032	1034.0	0.3632	9.514	1061.3	0.3562
13	0.000		0.3402	4.965	1025.6	0.3402	9.407	1055.3	0.3335
14	0.000		0.3201	4.893	1016.6	0.3201	9.310	1051.5	0.3136
15	0.000		0.3025	4.804	1005.7	0.3025	9.183	1045.8	0.2961
16	0.000		0.2870	4.665	988.8	0.2870	8.955	1032.6	0.2806
17	0.000		0.2735	4.337	950.2	0.2735	8.380	996.9	0.2671
18	0.000		0.2619	4.126	926.2	0.2619	7.967	968.7	0.2555
19	0.000		0.2517	3.885	899.6	0.2517	7.486	936.2	0.2453
20	0.000		0.2429	3.551	864.1	0.2429	6.824	893.7	0.2365
21	0.000		0.2356	3.073	815.8	0.2356	5.880	836.9	0.2292
22	0.000		0.2297	2.518	763.2	0.2297	4.779	775.0	0.2235
23	0.000		0.2259	1.073	641.5	0.2259	2.061	648.0	0.2197
24	0.000		0.2242	0.640	608.6	0.2242	1.211	610.7	0.2181

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.646	628.5	0.7396	2.371	646.8	0.7396	3.041	633.3	0.7396
2	5.898	866.4	0.7396	8.605	946.1	0.7396	11.008	862.7	0.7396
3	8.288	976.5	0.7340	11.904	1030.0	0.7322	14.996	906.1	0.7333
4	9.630	1076.8	0.6983	13.572	1088.3	0.6939	16.971	950.1	0.6966
5	10.138	1120.4	0.6484	14.110	1093.8	0.6422	17.644	970.2	0.6471
6	10.219	1128.1	0.5924	14.122	1081.1	0.5856	17.724	980.5	0.5927
7	10.142	1120.4	0.5378	13.967	1067.0	0.5313	17.605	986.0	0.5399
8	10.045	1114.6	0.4896	13.812	1056.6	0.4838	17.473	989.5	0.4930
9	10.255	1128.1	0.4480	14.067	1064.6	0.4430	17.825	1004.5	0.4521
10	10.148	1118.4	0.4122	13.899	1053.7	0.4080	17.634	1000.9	0.4167
11	10.025	1099.3	0.3817	13.700	1040.3	0.3781	17.386	993.4	0.3865
12	9.896	1078.7	0.3555	13.482	1024.8	0.3524	17.108	984.2	0.3605
13	9.776	1054.8	0.3328	13.265	1008.2	0.3303	16.826	974.3	0.3379
14	9.663	1026.2	0.3130	13.048	990.7	0.3110	16.542	964.2	0.3183
15	9.519	996.7	0.2956	12.791	972.1	0.2941	16.216	954.0	0.3011
16	9.273	966.5	0.2802	12.414	950.9	0.2791	15.760	942.4	0.2859
17	8.671	923.0	0.2667	11.634	923.0	0.2660	14.880	927.9	0.2728
18	8.235	887.6	0.2552	11.002	893.2	0.2548	14.102	907.3	0.2612
19	7.728	849.3	0.2451	10.260	858.9	0.2449	13.153	878.8	0.2512
20	7.034	804.5	0.2364	9.252	815.2	0.2365	11.814	835.2	0.2425
21	6.051	753.2	0.2292	7.890	765.5	0.2295	10.072	787.9	0.2353
22	4.909	702.7	0.2234	6.316	712.5	0.2240	8.014	731.7	0.2295
23	2.115	617.6	0.2197	2.701	621.3	0.2204	3.404	627.9	0.2258
24	1.241	592.5	0.2181	1.561	594.0	0.2189	1.940	597.0	0.2240

Table 4-69. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G4

	Assembly Number G4								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.555	621.9	0.7396	3.817	610.2	0.7396	4.208	609.9	0.7396
2	12.775	798.6	0.7396	13.646	743.2	0.7396	14.943	741.6	0.7396
3	17.236	825.8	0.7346	18.320	759.1	0.7357	19.982	763.9	0.7366
4	19.427	856.8	0.7001	20.602	778.2	0.7027	22.465	792.5	0.7050
5	20.211	873.2	0.6533	21.442	790.2	0.6578	23.445	813.0	0.6621
6	20.370	885.1	0.6016	21.659	802.9	0.6081	23.786	831.6	0.6146
7	20.322	895.9	0.5511	21.678	817.8	0.5595	23.924	849.9	0.5680
8	20.260	906.7	0.5055	21.694	835.5	0.5154	24.059	868.6	0.5252
9	20.745	927.6	0.4653	22.295	862.5	0.4760	24.823	895.0	0.4867
10	20.597	934.5	0.4300	22.214	878.5	0.4411	24.818	907.6	0.4521
11	20.374	938.5	0.3995	22.045	891.7	0.4106	24.688	914.1	0.4215
12	20.108	940.5	0.3730	21.825	903.1	0.3838	24.480	916.1	0.3945
13	19.830	941.1	0.3500	21.585	912.6	0.3604	24.234	915.1	0.3706
14	19.538	939.8	0.3298	21.326	920.9	0.3398	23.952	911.3	0.3494
15	19.191	936.4	0.3119	21.007	928.1	0.3215	23.594	904.7	0.3305
16	18.700	930.8	0.2962	20.536	933.2	0.3054	23.071	896.1	0.3140
17	17.769	922.7	0.2827	19.616	936.1	0.2917	22.088	885.8	0.2998
18	16.895	907.7	0.2706	18.721	930.6	0.2793	21.091	869.4	0.2870
19	15.798	885.0	0.2601	17.561	914.6	0.2683	19.782	846.0	0.2756
20	14.183	844.2	0.2509	15.790	876.1	0.2586	17.756	807.5	0.2656
21	12.131	800.8	0.2434	13.551	832.2	0.2510	15.233	766.7	0.2576
22	9.654	745.7	0.2374	10.802	772.5	0.2446	12.121	717.6	0.2510
23	4.088	633.5	0.2334	4.572	643.9	0.2404	5.126	623.7	0.2462
24	2.305	599.5	0.2311	2.561	604.4	0.2377	2.854	594.2	0.2430

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.878	629.3	0.7396
2	17.090	808.9	0.7396
3	22.717	839.3	0.7374
4	25.529	880.5	0.7070
5	26.726	908.9	0.6656
6	27.228	930.6	0.6192
7	27.492	947.9	0.5732
8	27.731	962.5	0.5303
9	28.654	985.2	0.4912
10	28.691	991.3	0.4559
11	28.555	990.5	0.4247
12	28.313	985.5	0.3972
13	28.014	977.9	0.3729
14	27.664	968.2	0.3514
15	27.228	957.1	0.3324
16	26.617	944.9	0.3156
17	25.535	931.2	0.3013
18	24.393	911.7	0.2884
19	22.885	885.5	0.2769
20	20.518	842.6	0.2668
21	17.615	797.3	0.2588
22	14.013	742.5	0.2521
23	5.956	636.2	0.2475
24	3.306	601.7	0.2444

Table 4-70. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G5

	Assembly Number G5								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.681	617.6	0.7396	1.268	618.2	0.7396
2	0.000		0.7396	2.426	790.0	0.7396	4.557	797.4	0.7396
3	0.000		0.7396	3.333	894.7	0.7396	6.396	926.0	0.7396
4	0.000		0.7231	3.854	896.3	0.7231	7.495	941.5	0.7202
5	0.000		0.6915	4.082	921.3	0.6915	7.964	974.3	0.6858
6	0.000	Data Not	0.6527	4.156	929.6	0.6527	8.088	981.3	0.6441
7	0.000	Required	0.6107	4.168	931.0	0.6107	8.065	976.4	0.5998
8	0.000		0.5682	4.172	931.4	0.5682	8.015	968.9	0.5561
9	0.000		0.5275	4.321	948.4	0.5275	8.212	975.6	0.5153
10	0.000		0.4902	4.299	945.8	0.4902	8.131	967.4	0.4785
11	0.000		0.4574	4.254	940.7	0.4574	8.025	959.1	0.4463
12	0.000		0.4287	4.198	934.3	0.4287	7.910	951.1	0.4184
13	0.000		0.4037	4.135	927.2	0.4037	7.795	944.1	0.3938
14	0.000		0.3814	4.063	919.2	0.3814	7.670	937.0	0.3721
15	0.000		0.3617	3.972	909.1	0.3617	7.511	928.0	0.3529
16	0.000		0.3444	3.834	894.1	0.3444	7.266	914.1	0.3360
17	0.000		0.3294	3.534	862.3	0.3294	6.729	883.9	0.3212
18	0.000		0.3166	3.348	843.2	0.3166	6.373	863.0	0.3085
19	0.000		0.3053	3.149	823.3	0.3053	5.985	840.3	0.2975
20	0.000		0.2955	2.881	797.2	0.2955	5.464	810.9	0.2879
21	0.000		0.2873	2.487	760.4	0.2873	4.701	769.9	0.2799
22	0.000		0.2807	2.014	718.4	0.2807	3.783	723.3	0.2735
23	0.000		0.2766	0.831	622.9	0.2766	1.579	626.3	0.2694
24	0.000		0.2749	0.479	596.7	0.2749	0.898	597.5	0.2678

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.294	590.0	0.7396	1.903	632.1	0.7396	2.494	624.2	0.7396
2	4.665	696.2	0.7396	6.931	870.7	0.7396	9.098	827.7	0.7396
3	6.588	820.8	0.7396	9.765	1033.0	0.7396	12.584	927.4	0.7396
4	7.825	986.6	0.7208	11.452	1031.9	0.7142	14.535	904.9	0.7148
5	8.360	1105.0	0.6862	12.077	1047.7	0.6756	15.271	920.5	0.6772
6	8.497	1130.1	0.6438	12.166	1039.2	0.6300	15.428	930.2	0.6327
7	8.470	1122.3	0.5986	12.068	1026.9	0.5828	15.382	937.7	0.5865
8	8.411	1105.0	0.5543	11.951	1016.9	0.5380	15.308	944.0	0.5422
9	8.609	1106.9	0.5133	12.193	1024.4	0.4972	15.662	960.5	0.5015
10	8.516	1084.3	0.4764	12.043	1014.7	0.4610	15.506	959.6	0.4651
11	8.398	1062.1	0.4442	11.853	1002.4	0.4297	15.284	954.9	0.4335
12	8.269	1036.9	0.4163	11.639	988.2	0.4025	15.024	948.1	0.4061
13	8.139	1010.5	0.3919	11.417	973.0	0.3789	14.746	939.9	0.3822
14	7.998	983.2	0.3703	11.177	957.0	0.3582	14.446	931.2	0.3613
15	7.823	956.7	0.3511	10.892	939.5	0.3399	14.095	921.8	0.3427
16	7.559	926.1	0.3343	10.497	919.1	0.3238	13.623	910.9	0.3264
17	6.995	884.6	0.3197	9.734	889.1	0.3097	12.752	895.9	0.3122
18	6.617	852.1	0.3072	9.168	861.6	0.2978	12.046	876.8	0.3000
19	6.205	818.2	0.2963	8.539	831.1	0.2874	11.227	851.5	0.2893
20	5.657	781.7	0.2868	7.715	793.8	0.2787	10.113	814.5	0.2801
21	4.860	738.0	0.2789	6.566	748.8	0.2713	8.604	770.8	0.2726
22	3.905	693.3	0.2726	5.221	701.9	0.2656	6.805	719.0	0.2667
23	1.630	614.4	0.2685	2.179	617.5	0.2618	2.833	623.2	0.2629
24	0.926	590.4	0.2669	1.228	592.1	0.2604	1.581	594.5	0.2614

Table 4-70. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G5

	Assembly Number G5								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	2.932	612.3	0.7396	3.151	601.6	0.7396	3.840	651.0	0.7396
2	10.646	765.0	0.7396	11.396	715.1	0.7396	13.789	932.6	0.7396
3	14.548	829.9	0.7396	15.485	759.0	0.7396	18.556	1071.9	0.7396
4	16.673	811.6	0.7172	17.685	744.3	0.7192	21.026	1039.8	0.7151
5	17.502	824.6	0.6817	18.560	753.7	0.6853	21.974	1054.0	0.6788
6	17.737	835.6	0.6396	18.849	764.9	0.6450	22.253	1052.1	0.6365
7	17.772	847.2	0.5957	18.949	778.6	0.6029	22.320	1045.6	0.5930
8	17.782	859.5	0.5531	19.036	795.2	0.5619	22.382	1040.8	0.5514
9	18.279	880.7	0.5136	19.650	821.1	0.5235	23.054	1052.1	0.5129
10	18.182	889.7	0.4776	19.626	837.7	0.4883	23.002	1046.6	0.4778
11	17.996	895.2	0.4459	19.500	851.7	0.4568	22.835	1038.7	0.4467
12	17.757	898.4	0.4180	19.310	863.2	0.4289	22.598	1029.7	0.4191
13	17.490	900.1	0.3936	19.086	873.5	0.4042	22.329	1021.1	0.3947
14	17.192	900.4	0.3720	18.824	882.2	0.3822	22.026	1013.4	0.3731
15	16.833	899.2	0.3529	18.497	890.0	0.3627	21.659	1005.9	0.3539
16	16.341	896.1	0.3360	18.032	896.6	0.3455	21.143	996.5	0.3368
17	15.435	890.7	0.3215	17.143	900.8	0.3306	20.186	984.0	0.3220
18	14.653	879.2	0.3086	16.349	897.9	0.3173	19.265	961.2	0.3088
19	13.709	860.6	0.2974	15.356	885.8	0.3055	18.075	927.0	0.2973
20	12.354	826.0	0.2875	13.865	853.3	0.2952	16.244	870.9	0.2874
21	10.563	787.3	0.2796	11.908	815.3	0.2870	13.920	814.3	0.2794
22	8.367	735.9	0.2733	9.461	761.1	0.2803	11.027	750.7	0.2730
23	3.477	629.1	0.2692	3.932	638.7	0.2759	4.582	634.9	0.2687
24	1.923	597.1	0.2673	2.162	601.5	0.2737	2.512	600.6	0.2666

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.657	645.5	0.7396
2	16.450	881.0	0.7396
3	21.869	980.7	0.7396
4	24.582	946.2	0.7139
5	25.614	958.0	0.6771
6	25.922	962.1	0.6345
7	25.995	962.9	0.5907
8	26.060	963.3	0.5487
9	26.812	974.7	0.5100
10	26.740	971.9	0.4749
11	26.533	966.2	0.4437
12	26.245	959.0	0.4163
13	25.921	951.2	0.3920
14	25.564	943.7	0.3705
15	25.143	936.3	0.3514
16	24.572	928.8	0.3343
17	23.554	920.5	0.3194
18	22.530	906.8	0.3062
19	21.181	885.9	0.2946
20	19.040	846.8	0.2847
21	16.356	803.6	0.2766
22	12.970	748.1	0.2702
23	5.413	636.2	0.2659
24	2.959	601.2	0.2640

Table 4-71. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G6

	Assembly Number G6								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.862	633.9	0.7396	1.588	632.8	0.7396
2	0.000		0.7396	3.019	857.1	0.7396	5.648	864.0	0.7396
3	0.000		0.7355	4.106	924.0	0.7355	7.866	957.6	0.7343
4	0.000		0.7028	4.705	993.6	0.7028	9.107	1049.3	0.6991
5	0.000		0.6571	4.946	1023.2	0.6571	9.601	1087.9	0.6500
6	0.000	Data Not	0.6047	5.007	1030.9	0.6047	9.713	1095.9	0.5947
7	0.000	Required	0.5525	4.998	1029.7	0.5525	9.678	1091.8	0.5405
8	0.000		0.5049	4.982	1027.7	0.5049	9.616	1084.7	0.4923
9	0.000		0.4630	5.138	1047.5	0.4630	9.847	1096.4	0.4504
10	0.000		0.4264	5.112	1044.2	0.4264	9.779	1089.8	0.4144
11	0.000		0.3952	5.074	1039.3	0.3952	9.704	1084.1	0.3834
12	0.000		0.3681	5.036	1034.5	0.3681	9.633	1078.9	0.3567
13	0.000		0.3444	5.006	1030.8	0.3444	9.580	1075.4	0.3335
14	0.000		0.3237	4.981	1027.6	0.3237	9.546	1074.0	0.3131
15	0.000		0.3053	4.944	1023.0	0.3053	9.487	1070.6	0.2950
16	0.000		0.2890	4.854	1011.8	0.2890	9.324	1059.5	0.2791
17	0.000		0.2747	4.557	975.9	0.2747	8.795	1025.0	0.2650
18	0.000		0.2624	4.366	953.6	0.2624	8.411	997.2	0.2529
19	0.000		0.2516	4.129	926.6	0.2516	7.936	964.0	0.2424
20	0.000		0.2422	3.786	888.9	0.2422	7.256	919.0	0.2333
21	0.000		0.2344	3.288	837.2	0.2344	6.279	858.9	0.2257
22	0.000		0.2282	2.708	780.8	0.2282	5.132	793.0	0.2197
23	0.000		0.2242	1.159	648.2	0.2242	2.227	655.3	0.2157
24	0.000		0.2224	0.695	612.7	0.2224	1.317	615.1	0.2141

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.657	644.0	0.7396	2.385	647.2	0.7396	3.081	636.3	0.7396
2	5.905	930.2	0.7396	8.577	939.9	0.7396	11.042	872.0	0.7396
3	8.227	1040.4	0.7340	11.750	1014.0	0.7324	14.914	916.3	0.7333
4	9.515	1128.1	0.6983	13.344	1067.7	0.6946	16.831	963.2	0.6969
5	10.019	1147.8	0.6488	13.894	1076.0	0.6436	17.539	987.1	0.6477
6	10.128	1141.8	0.5931	13.969	1069.9	0.5874	17.704	1000.9	0.5931
7	10.086	1128.1	0.5389	13.885	1062.3	0.5334	17.675	1009.5	0.5401
8	10.018	1116.5	0.4906	13.792	1057.8	0.4857	17.621	1015.7	0.4925
9	10.253	1124.2	0.4490	14.099	1070.8	0.4446	18.043	1034.0	0.4511
10	10.176	1106.9	0.4129	13.982	1063.6	0.4091	17.911	1031.6	0.4153
11	10.090	1086.1	0.3822	13.835	1052.7	0.3788	17.717	1024.1	0.3847
12	10.007	1063.9	0.3556	13.672	1038.5	0.3527	17.486	1013.3	0.3582
13	9.942	1042.2	0.3325	13.517	1022.9	0.3301	17.250	1000.6	0.3353
14	9.894	1017.5	0.3123	13.374	1006.7	0.3104	17.016	986.6	0.3153
15	9.822	995.0	0.2944	13.201	989.7	0.2929	16.747	972.0	0.2976
16	9.645	971.5	0.2785	12.914	971.6	0.2775	16.353	956.0	0.2821
17	9.096	938.9	0.2645	12.217	947.7	0.2639	15.534	938.2	0.2685
18	8.694	910.5	0.2526	11.646	921.3	0.2522	14.796	914.3	0.2567
19	8.197	877.1	0.2421	10.932	888.5	0.2420	13.860	883.5	0.2464
20	7.487	833.6	0.2330	9.910	843.5	0.2332	12.489	837.4	0.2375
21	6.471	780.4	0.2255	8.508	791.1	0.2259	10.706	789.9	0.2301
22	5.279	723.2	0.2195	6.856	732.9	0.2201	8.575	734.0	0.2243
23	2.289	626.1	0.2156	2.948	629.0	0.2164	3.664	629.2	0.2204
24	1.351	596.6	0.2140	1.713	598.2	0.2147	2.102	597.9	0.2187

Table 4-71. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G6

	Assembly Number G6								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.660	630.2	0.7396	3.985	623.0	0.7396	4.211	588.1	0.7396
2	13.006	829.9	0.7396	14.067	789.3	0.7396	14.843	663.4	0.7396
3	17.394	860.4	0.7344	18.705	807.7	0.7354	19.733	680.5	0.7364
4	19.545	895.5	0.6997	20.957	830.4	0.7019	22.147	700.9	0.7047
5	20.368	913.3	0.6526	21.828	841.4	0.6564	23.146	717.5	0.6618
6	20.601	924.0	0.6002	22.106	851.9	0.6056	23.547	733.8	0.6141
7	20.627	932.8	0.5487	22.188	865.1	0.5555	23.752	750.4	0.5673
8	20.629	941.8	0.5020	22.256	881.0	0.5098	23.947	768.0	0.5245
9	21.175	962.1	0.4609	22.915	908.8	0.4692	24.759	789.7	0.4860
10	21.079	968.0	0.4249	22.886	925.8	0.4333	24.811	801.5	0.4515
11	20.903	971.0	0.3940	22.768	940.7	0.4023	24.735	807.7	0.4210
12	20.678	972.0	0.3672	22.592	953.6	0.3753	24.572	809.6	0.3939
13	20.437	971.2	0.3438	22.393	964.7	0.3516	24.365	808.4	0.3698
14	20.186	968.4	0.3234	22.178	974.4	0.3308	24.126	804.9	0.3483
15	19.888	963.5	0.3053	21.907	981.7	0.3123	23.820	799.7	0.3291
16	19.453	956.8	0.2893	21.488	986.1	0.2960	23.356	793.2	0.3121
17	18.578	947.6	0.2755	20.616	986.9	0.2819	22.430	785.4	0.2976
18	17.738	931.2	0.2633	19.745	978.4	0.2693	21.473	773.2	0.2845
19	16.645	906.4	0.2526	18.574	957.5	0.2583	20.179	756.0	0.2728
20	14.982	862.3	0.2434	16.735	912.1	0.2486	18.140	729.0	0.2624
21	12.873	815.6	0.2358	14.418	861.3	0.2408	15.604	700.4	0.2541
22	10.310	757.8	0.2298	11.561	794.6	0.2346	12.468	665.6	0.2470
23	4.400	639.2	0.2259	4.941	654.1	0.2305	5.304	602.0	0.2421
24	2.501	603.0	0.2237	2.794	610.7	0.2282	2.977	581.9	0.2386

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.800	620.5	0.7396
2	16.763	778.8	0.7396
3	22.191	806.1	0.7369
4	24.886	839.8	0.7062
5	26.109	867.6	0.6649
6	26.821	908.0	0.6194
7	27.196	930.8	0.5737
8	27.475	942.4	0.5311
9	28.438	963.5	0.4924
10	28.585	977.0	0.4579
11	28.511	977.3	0.4268
12	28.296	969.9	0.3990
13	28.016	959.5	0.3743
14	27.693	947.8	0.3525
15	27.296	935.2	0.3330
16	26.733	921.7	0.3159
17	25.699	907.3	0.3012
18	24.593	887.7	0.2879
19	23.098	862.1	0.2761
20	20.723	820.9	0.2657
21	17.814	777.6	0.2573
22	14.207	726.2	0.2501
23	6.065	629.7	0.2452
24	3.389	598.1	0.2416

Table 4-72. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G7

	Assembly Number G7								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.825	630.6	0.7396	1.527	630.3	0.7396
2	0.000		0.7396	2.935	847.3	0.7396	5.534	859.8	0.7396
3	0.000		0.7364	4.066	919.5	0.7364	7.873	964.0	0.7349
4	0.000		0.7046	4.724	995.9	0.7046	9.234	1065.6	0.6999
5	0.000		0.6592	4.992	1029.0	0.6592	9.750	1104.1	0.6507
6	0.000	Data Not	0.6071	5.044	1035.5	0.6071	9.808	1105.1	0.5953
7	0.000	Required	0.5550	5.012	1031.5	0.5550	9.693	1092.0	0.5413
8	0.000		0.5075	4.972	1026.5	0.5075	9.555	1076.8	0.4935
9	0.000		0.4658	5.104	1043.1	0.4658	9.715	1081.1	0.4523
10	0.000		0.4295	5.048	1036.0	0.4295	9.574	1068.0	0.4168
11	0.000		0.3985	4.972	1026.5	0.3985	9.418	1055.9	0.3866
12	0.000		0.3719	4.886	1015.8	0.3719	9.257	1044.6	0.3606
13	0.000		0.3488	4.795	1004.6	0.3488	9.103	1035.3	0.3381
14	0.000		0.3286	4.696	992.6	0.3286	8.955	1028.1	0.3185
15	0.000		0.3110	4.578	978.4	0.3110	8.776	1019.2	0.3013
16	0.000		0.2956	4.411	958.8	0.2956	8.498	1003.2	0.2862
17	0.000		0.2823	4.067	919.6	0.2823	7.886	965.6	0.2730
18	0.000		0.2709	3.840	894.8	0.2709	7.443	936.5	0.2616
19	0.000		0.2609	3.592	868.4	0.2609	6.944	903.8	0.2519
20	0.000		0.2524	3.262	834.5	0.2524	6.287	863.0	0.2434
21	0.000		0.2452	2.804	789.9	0.2452	5.376	809.7	0.2364
22	0.000		0.2395	2.279	741.6	0.2395	4.333	752.8	0.2309
23	0.000		0.2358	0.961	632.8	0.2358	1.847	638.7	0.2273
24	0.000		0.2342	0.567	603.1	0.2342	1.076	605.3	0.2259

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.570	610.9	0.7396	2.207	635.7	0.7396	2.729	616.3	0.7396
2	5.699	778.8	0.7396	8.062	886.8	0.7396	9.944	787.3	0.7396
3	8.114	847.8	0.7351	11.272	953.6	0.7349	13.690	817.0	0.7367
4	9.515	907.4	0.7005	12.967	1001.9	0.6999	15.623	847.3	0.7044
5	10.050	937.3	0.6518	13.560	1011.8	0.6517	16.339	863.5	0.6597
6	10.120	956.7	0.5968	13.621	1010.2	0.5978	16.492	875.8	0.6096
7	10.016	974.8	0.5432	13.497	1006.8	0.5451	16.447	886.5	0.5602
8	9.892	998.5	0.4954	13.359	1004.5	0.4981	16.378	896.0	0.5152
9	10.081	1049.4	0.4541	13.616	1016.0	0.4571	16.763	913.9	0.4752
10	9.959	1084.3	0.4185	13.454	1009.2	0.4216	16.619	916.4	0.4398
11	9.811	1099.3	0.3880	13.258	1001.1	0.3913	16.415	915.3	0.4091
12	9.647	1093.7	0.3618	13.042	992.4	0.3651	16.185	913.3	0.3824
13	9.481	1071.3	0.3391	12.820	983.1	0.3425	15.964	913.4	0.3593
14	9.317	1042.2	0.3193	12.588	971.9	0.3227	15.763	917.8	0.3393
15	9.121	1012.2	0.3019	12.302	957.3	0.3054	15.524	924.5	0.3216
16	8.822	976.5	0.2867	11.887	938.9	0.2900	15.136	928.4	0.3060
17	8.182	930.9	0.2735	11.071	911.6	0.2768	14.291	924.2	0.2924
18	7.713	890.6	0.2621	10.417	883.9	0.2654	13.538	910.2	0.2803
19	7.189	853.6	0.2523	9.671	851.8	0.2555	12.621	886.5	0.2695
20	6.501	809.9	0.2439	8.692	811.5	0.2469	11.339	846.2	0.2601
21	5.552	759.5	0.2368	7.377	763.7	0.2398	9.650	799.0	0.2524
22	4.467	707.5	0.2313	5.871	712.2	0.2343	7.644	740.1	0.2462
23	1.903	619.7	0.2277	2.485	620.9	0.2307	3.212	630.3	0.2420
24	1.106	592.5	0.2263	1.424	593.8	0.2292	1.809	597.5	0.2396

Table 4-72. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G7

	Assembly Number G7								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.158	611.2	0.7396	3.394	605.0	0.7396	3.808	613.0	0.7396
2	11.441	757.3	0.7396	12.237	725.7	0.7396	13.664	762.3	0.7396
3	15.591	779.5	0.7383	16.575	738.6	0.7392	18.466	840.3	0.7396
4	17.716	805.4	0.7082	18.775	753.9	0.7106	20.962	840.8	0.7133
5	18.548	821.5	0.6665	19.652	763.2	0.6707	22.052	874.2	0.6753
6	18.792	834.3	0.6194	19.945	773.5	0.6256	22.511	901.3	0.6317
7	18.830	846.2	0.5727	20.044	786.6	0.5807	22.748	924.4	0.5878
8	18.845	858.4	0.5297	20.130	802.0	0.5391	22.956	945.4	0.5463
9	19.373	879.7	0.4906	20.767	826.3	0.5011	23.756	974.3	0.5078
10	19.287	888.4	0.4554	20.748	841.7	0.4666	23.783	982.6	0.4724
11	19.121	894.2	0.4245	20.636	854.2	0.4358	23.672	982.8	0.4407
12	18.918	898.4	0.3974	20.476	864.4	0.4086	23.486	978.0	0.4128
13	18.720	901.9	0.3737	20.314	873.0	0.3845	23.281	970.3	0.3882
14	18.534	904.3	0.3530	20.159	880.5	0.3634	23.068	960.0	0.3665
15	18.297	904.6	0.3346	19.948	886.8	0.3445	22.789	948.0	0.3473
16	17.893	902.1	0.3182	19.567	892.4	0.3279	22.331	934.7	0.3303
17	17.016	897.2	0.3043	18.710	897.4	0.3137	21.385	919.5	0.3159
18	16.192	886.3	0.2915	17.878	895.4	0.3007	20.425	898.1	0.3026
19	15.154	868.2	0.2803	16.798	885.1	0.2891	19.163	868.6	0.2908
20	13.630	833.1	0.2703	15.144	854.0	0.2787	17.214	823.0	0.2804
21	11.663	794.5	0.2623	13.018	817.5	0.2706	14.771	776.7	0.2722
22	9.263	743.0	0.2558	10.371	764.1	0.2638	11.739	724.1	0.2654
23	3.883	632.1	0.2513	4.349	640.7	0.2591	4.926	626.4	0.2608
24	2.166	598.6	0.2485	2.411	602.5	0.2559	2.719	595.9	0.2576

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.584	641.0	0.7396
2	16.215	865.1	0.7396
3	21.728	972.6	0.7396
4	24.581	955.0	0.7122
5	25.853	980.9	0.6736
6	26.410	995.1	0.6295
7	26.698	1002.6	0.5849
8	26.936	1007.1	0.5427
9	27.846	1023.6	0.5036
10	27.869	1022.9	0.4680
11	27.722	1017.5	0.4364
12	27.474	1008.3	0.4084
13	27.188	996.3	0.3840
14	26.882	982.8	0.3625
15	26.503	968.4	0.3434
16	25.937	953.2	0.3266
17	24.878	937.5	0.3122
18	23.756	915.6	0.2990
19	22.276	886.8	0.2874
20	19.964	841.1	0.2772
21	17.125	794.1	0.2691
22	13.601	739.3	0.2623
23	5.738	634.5	0.2578
24	3.164	601.0	0.2548

Table 4-73. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G8

	Assembly Number G8								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.907	638.1	0.7396	1.813	652.2	0.7396
2	0.000		0.7396	3.193	877.8	0.7396	6.501	962.7	0.7396
3	0.000		0.7329	4.357	952.5	0.7329	9.022	1089.5	0.7269
4	0.000		0.6960	4.979	1027.4	0.6960	10.280	1193.5	0.6815
5	0.000		0.6457	5.187	1053.8	0.6457	10.600	1212.8	0.6223
6	0.000	Data Not	0.5903	5.195	1054.8	0.5903	10.500	1194.2	0.5613
7	0.000	Required	0.5372	5.142	1048.0	0.5372	10.293	1168.1	0.5065
8	0.000		0.4902	5.106	1043.4	0.4902	10.121	1145.5	0.4603
9	0.000		0.4494	5.263	1063.6	0.4494	10.298	1148.8	0.4213
10	0.000		0.4138	5.245	1061.3	0.4138	10.192	1134.4	0.3876
11	0.000		0.3833	5.218	1057.8	0.3833	10.094	1122.9	0.3589
12	0.000		0.3568	5.188	1053.9	0.3568	10.004	1113.3	0.3341
13	0.000		0.3337	5.158	1050.0	0.3337	9.923	1105.2	0.3126
14	0.000		0.3135	5.124	1045.7	0.3135	9.844	1098.1	0.2937
15	0.000		0.2956	5.075	1039.5	0.2956	9.744	1090.1	0.2770
16	0.000		0.2797	4.973	1026.6	0.2797	9.559	1077.2	0.2621
17	0.000		0.2659	4.666	988.9	0.2659	9.027	1043.1	0.2490
18	0.000		0.2539	4.465	965.1	0.2539	8.639	1015.7	0.2377
19	0.000		0.2435	4.216	936.4	0.2435	8.145	980.8	0.2279
20	0.000		0.2344	3.859	896.8	0.2344	7.436	933.0	0.2195
21	0.000		0.2268	3.351	843.5	0.2268	6.431	869.7	0.2124
22	0.000		0.2208	2.765	786.2	0.2208	5.264	801.4	0.2069
23	0.000		0.2168	1.192	650.8	0.2168	2.300	659.0	0.2030
24	0.000		0.2151	0.718	614.4	0.2151	1.370	617.8	0.2015

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.855	609.7	0.7396	2.316	613.8	0.7396	2.958	630.0	0.7396
2	6.660	769.7	0.7396	8.370	783.3	0.7396	10.703	852.2	0.7396
3	9.245	822.4	0.7274	11.588	832.3	0.7313	14.715	911.1	0.7326
4	10.541	877.1	0.6827	13.252	884.9	0.6916	16.838	978.1	0.6947
5	10.885	913.6	0.6243	13.818	918.4	0.6392	17.658	1017.4	0.6441
6	10.801	938.9	0.5640	13.887	942.2	0.5840	17.855	1037.9	0.5899
7	10.606	958.3	0.5098	13.807	960.5	0.5326	17.830	1046.8	0.5383
8	10.444	974.8	0.4636	13.739	975.8	0.4871	17.783	1050.2	0.4921
9	10.635	998.5	0.4245	14.084	1001.4	0.4470	18.222	1065.7	0.4513
10	10.532	1003.6	0.3907	14.004	1005.3	0.4117	18.098	1058.4	0.4154
11	10.431	998.5	0.3617	13.881	1001.6	0.3812	17.897	1045.6	0.3845
12	10.334	986.6	0.3367	13.732	992.9	0.3547	17.644	1028.9	0.3580
13	10.246	974.8	0.3150	13.572	980.9	0.3317	17.364	1009.8	0.3348
14	10.157	958.3	0.2960	13.399	967.2	0.3115	17.057	989.0	0.3146
15	10.047	942.1	0.2791	13.192	951.6	0.2936	16.705	967.1	0.2968
16	9.849	921.4	0.2641	12.881	933.7	0.2780	16.235	943.6	0.2812
17	9.300	895.1	0.2509	12.179	910.1	0.2644	15.353	917.7	0.2678
18	8.894	868.2	0.2396	11.599	884.0	0.2525	14.553	887.1	0.2559
19	8.379	837.8	0.2297	10.872	853.4	0.2421	13.558	851.3	0.2456
20	7.644	801.8	0.2211	9.845	812.9	0.2330	12.163	804.5	0.2366
21	6.608	760.8	0.2140	8.459	767.0	0.2255	10.400	759.4	0.2292
22	5.405	715.9	0.2084	6.850	717.0	0.2195	8.365	711.5	0.2232
23	2.363	627.2	0.2046	2.985	625.1	0.2155	3.632	622.5	0.2194
24	1.405	597.7	0.2030	1.745	596.0	0.2133	2.102	594.9	0.2171

Table 4-73. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G8

	Assembly Number G8								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.688	649.8	0.7396	4.145	650.5	0.7396	4.642	624.3	0.7396
2	13.238	927.0	0.7396	14.745	907.6	0.7396	16.390	798.1	0.7396
3	18.001	987.9	0.7321	19.875	943.1	0.7323	22.038	837.1	0.7336
4	20.456	1046.2	0.6938	22.449	974.6	0.6945	24.940	888.9	0.6976
5	21.359	1061.3	0.6430	23.368	979.0	0.6443	26.095	928.3	0.6495
6	21.530	1056.6	0.5885	23.531	976.8	0.5905	26.432	958.6	0.5973
7	21.448	1046.2	0.5368	23.448	976.5	0.5392	26.479	981.8	0.5469
8	21.353	1037.5	0.4906	23.369	980.9	0.4932	26.505	1001.1	0.5010
9	21.840	1046.2	0.4501	23.936	1002.9	0.4527	27.214	1027.8	0.4601
10	21.682	1040.1	0.4146	23.814	1013.0	0.4172	27.116	1032.3	0.4240
11	21.441	1032.9	0.3840	23.610	1023.4	0.3867	26.894	1028.9	0.3927
12	21.144	1025.1	0.3575	23.350	1034.0	0.3601	26.594	1021.3	0.3657
13	20.812	1015.9	0.3346	23.055	1044.7	0.3370	26.248	1011.7	0.3421
14	20.444	1005.3	0.3145	22.719	1054.1	0.3168	25.856	1001.3	0.3215
15	20.015	992.0	0.2969	22.315	1061.4	0.2989	25.391	990.0	0.3034
16	19.446	975.2	0.2814	21.759	1065.3	0.2832	24.766	977.5	0.2874
17	18.445	955.5	0.2680	20.752	1063.5	0.2696	23.677	962.8	0.2737
18	17.473	927.6	0.2562	19.732	1049.4	0.2576	22.530	940.5	0.2614
19	16.252	892.4	0.2460	18.408	1019.7	0.2469	21.023	909.4	0.2507
20	14.512	841.3	0.2370	16.449	959.6	0.2379	18.752	858.8	0.2414
21	12.396	792.2	0.2297	14.084	895.9	0.2304	16.042	806.3	0.2338
22	9.951	738.9	0.2238	11.320	820.7	0.2243	12.852	746.0	0.2276
23	4.320	633.9	0.2201	4.930	666.6	0.2204	5.591	636.2	0.2237
24	2.487	601.6	0.2178	2.830	619.2	0.2183	3.187	601.3	0.2214

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.432	642.5	0.7396
2	18.875	855.7	0.7396
3	25.171	889.4	0.7342
4	28.393	932.1	0.6992
5	29.711	954.6	0.6523
6	30.127	965.7	0.6012
7	30.212	971.1	0.5513
8	30.260	974.3	0.5055
9	31.061	987.6	0.4646
10	30.948	985.4	0.4283
11	30.681	978.9	0.3970
12	30.322	970.4	0.3698
13	29.909	960.9	0.3462
14	29.447	951.1	0.3255
15	28.909	941.0	0.3073
16	28.202	929.7	0.2912
17	27.024	917.7	0.2774
18	25.741	899.6	0.2651
19	24.044	875.0	0.2543
20	21.442	833.8	0.2450
21	18.356	789.5	0.2374
22	14.680	735.7	0.2311
23	6.397	633.9	0.2273
24	3.626	600.5	0.2249

Table 4-74. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G9

	Assembly Number G9								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.909	638.2	0.7396	1.799	650.5	0.7396
2	0.000		0.7396	3.190	877.4	0.7396	6.425	951.6	0.7396
3	0.000		0.7330	4.346	951.3	0.7330	8.906	1073.2	0.7278
4	0.000		0.6964	4.975	1026.9	0.6964	10.173	1176.0	0.6836
5	0.000		0.6462	5.208	1056.5	0.6462	10.544	1199.5	0.6253
6	0.000	Data Not	0.5905	5.245	1061.3	0.5905	10.504	1186.4	0.5646
7	0.000	Required	0.5368	5.215	1057.4	0.5368	10.345	1164.6	0.5093
8	0.000		0.4892	5.188	1053.9	0.4892	10.199	1144.9	0.4624
9	0.000		0.4480	5.343	1074.1	0.4480	10.377	1148.7	0.4229
10	0.000		0.4122	5.309	1069.6	0.4122	10.254	1134.1	0.3888
11	0.000		0.3816	5.261	1063.3	0.3816	10.128	1121.5	0.3598
12	0.000		0.3552	5.202	1055.7	0.3552	9.999	1110.3	0.3349
13	0.000		0.3323	5.137	1047.4	0.3323	9.870	1100.2	0.3133
14	0.000		0.3124	5.060	1037.6	0.3124	9.731	1090.4	0.2945
15	0.000		0.2950	4.960	1025.0	0.2950	9.555	1078.6	0.2780
16	0.000		0.2796	4.807	1006.1	0.2796	9.282	1060.3	0.2634
17	0.000		0.2664	4.462	964.7	0.2664	8.673	1021.0	0.2507
18	0.000		0.2550	4.235	938.5	0.2550	8.229	990.0	0.2398
19	0.000		0.2450	3.980	910.0	0.2450	7.717	954.5	0.2304
20	0.000		0.2364	3.637	873.1	0.2364	7.028	908.8	0.2222
21	0.000		0.2292	3.162	824.6	0.2292	6.080	850.1	0.2155
22	0.000		0.2233	2.621	772.7	0.2233	4.996	787.5	0.2101
23	0.000		0.2195	1.134	646.2	0.2195	2.190	654.2	0.2063
24	0.000		0.2178	0.687	612.1	0.2178	1.310	615.2	0.2049

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.852	623.5	0.7396	2.407	625.4	0.7396	3.145	641.2	0.7396
2	6.623	830.4	0.7396	8.689	838.3	0.7396	11.319	897.5	0.7396
3	9.181	898.2	0.7281	11.947	893.1	0.7309	15.350	950.7	0.7314
4	10.486	958.3	0.6844	13.598	946.3	0.6905	17.376	1007.6	0.6920
5	10.876	989.9	0.6267	14.164	974.7	0.6368	18.129	1037.4	0.6395
6	10.846	1007.0	0.5664	14.246	993.2	0.5797	18.310	1053.5	0.5830
7	10.695	1021.0	0.5113	14.181	1007.7	0.5261	18.300	1062.6	0.5294
8	10.555	1031.5	0.4644	14.117	1020.7	0.4792	18.271	1068.4	0.4821
9	10.747	1056.6	0.4247	14.460	1047.0	0.4385	18.730	1087.9	0.4410
10	10.624	1056.6	0.3904	14.358	1050.7	0.4032	18.606	1084.2	0.4054
11	10.494	1049.4	0.3613	14.208	1047.2	0.3730	18.397	1074.2	0.3749
12	10.359	1038.6	0.3363	14.022	1038.2	0.3469	18.123	1059.6	0.3487
13	10.221	1022.7	0.3147	13.813	1025.8	0.3244	17.807	1042.1	0.3260
14	10.072	1005.3	0.2957	13.579	1011.2	0.3047	17.448	1022.0	0.3064
15	9.884	984.9	0.2792	13.294	994.9	0.2876	17.026	1000.5	0.2891
16	9.598	963.2	0.2645	12.892	975.7	0.2725	16.470	976.9	0.2742
17	8.969	930.9	0.2517	12.098	949.0	0.2595	15.502	950.9	0.2612
18	8.506	901.3	0.2408	11.447	919.6	0.2482	14.634	919.5	0.2499
19	7.971	866.7	0.2313	10.680	884.6	0.2384	13.601	882.6	0.2401
20	7.253	825.1	0.2232	9.644	839.0	0.2299	12.188	832.9	0.2316
21	6.268	775.1	0.2164	8.271	786.6	0.2228	10.419	783.8	0.2247
22	5.142	722.0	0.2110	6.692	729.6	0.2171	8.370	729.4	0.2190
23	2.252	626.1	0.2072	2.904	628.3	0.2132	3.611	628.3	0.2152
24	1.345	597.7	0.2057	1.703	597.8	0.2114	2.093	598.0	0.2133

Table 4-74. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G9

	Assembly Number G9								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.795	639.4	0.7396	4.083	615.5	0.7396	4.589	625.5	0.7396
2	13.521	869.2	0.7396	14.466	760.9	0.7396	16.103	796.8	0.7396
3	18.125	904.9	0.7312	19.299	778.0	0.7321	21.375	823.9	0.7334
4	20.388	942.4	0.6923	21.656	798.3	0.6945	23.962	859.3	0.6975
5	21.223	955.8	0.6407	22.538	808.6	0.6448	25.000	884.2	0.6498
6	21.423	958.9	0.5855	22.775	816.9	0.5914	25.372	906.4	0.5984
7	21.410	958.4	0.5332	22.802	825.9	0.5408	25.526	927.8	0.5492
8	21.382	958.6	0.4871	22.821	836.6	0.4958	25.671	949.6	0.5049
9	21.912	970.4	0.4470	23.437	856.6	0.4565	26.466	981.5	0.4655
10	21.778	968.7	0.4120	23.353	868.4	0.4220	26.456	995.0	0.4307
11	21.544	964.5	0.3819	23.164	879.3	0.3921	26.301	1001.3	0.4002
12	21.234	958.6	0.3559	22.895	889.2	0.3661	26.042	1003.1	0.3736
13	20.871	950.9	0.3333	22.568	898.1	0.3434	25.708	1001.8	0.3502
14	20.455	941.6	0.3136	22.185	906.3	0.3235	25.303	997.8	0.3298
15	19.962	930.2	0.2964	21.721	913.6	0.3061	24.801	990.8	0.3119
16	19.322	916.9	0.2813	21.122	924.0	0.2910	24.147	980.8	0.2963
17	18.253	901.2	0.2683	20.145	947.8	0.2785	23.095	967.3	0.2834
18	17.241	879.2	0.2569	19.158	954.3	0.2671	21.991	946.6	0.2715
19	16.016	850.9	0.2469	17.951	959.1	0.2572	20.609	916.6	0.2613
20	14.307	809.0	0.2382	16.088	919.1	0.2479	18.447	867.7	0.2517
21	12.229	767.6	0.2311	13.792	865.6	0.2402	15.819	816.6	0.2439
22	9.803	719.9	0.2252	11.062	796.3	0.2337	12.663	755.5	0.2372
23	4.214	624.7	0.2211	4.755	654.1	0.2291	5.448	639.9	0.2325
24	2.423	595.8	0.2187	2.715	610.5	0.2261	3.087	603.0	0.2294

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.242	627.4	0.7396
2	18.163	797.3	0.7396
3	23.990	824.8	0.7346
4	26.895	863.9	0.7005
5	28.157	892.6	0.6550
6	28.706	916.0	0.6055
7	29.003	935.3	0.5574
8	29.268	951.9	0.5133
9	30.233	976.0	0.4735
10	30.270	982.8	0.4380
11	30.120	983.5	0.4070
12	29.837	980.0	0.3798
13	29.463	974.3	0.3560
14	29.004	966.6	0.3352
15	28.438	957.6	0.3168
16	27.705	946.5	0.3009
17	26.558	933.4	0.2876
18	25.314	914.5	0.2754
19	23.735	888.5	0.2649
20	21.237	846.0	0.2552
21	18.232	800.9	0.2472
22	14.582	745.4	0.2406
23	6.296	637.8	0.2361
24	3.547	602.4	0.2329

Table 4-75. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G10

	Assembly Number G10								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.895	637.0	0.7396	1.754	647.1	0.7396
2	0.000		0.7396	3.147	872.3	0.7396	6.267	934.4	0.7396
3	0.000		0.7339	4.286	944.4	0.7339	8.682	1048.4	0.7297
4	0.000		0.6987	4.900	1017.5	0.6987	9.914	1145.4	0.6881
5	0.000		0.6502	5.125	1045.8	0.6502	10.273	1167.6	0.6326
6	0.000	Data Not	0.5958	5.158	1050.0	0.5958	10.232	1155.3	0.5737
7	0.000	Required	0.5428	5.124	1045.7	0.5428	10.069	1134.1	0.5190
8	0.000		0.4955	5.090	1041.4	0.4955	9.917	1115.1	0.4723
9	0.000		0.4543	5.232	1059.6	0.4543	10.076	1117.8	0.4325
10	0.000		0.4185	5.186	1053.6	0.4185	9.936	1102.8	0.3983
11	0.000		0.3879	5.123	1045.6	0.3879	9.788	1089.5	0.3691
12	0.000		0.3616	5.049	1036.2	0.3616	9.634	1077.1	0.3440
13	0.000		0.3388	4.966	1025.7	0.3388	9.477	1065.8	0.3224
14	0.000		0.3189	4.873	1014.2	0.3189	9.308	1054.2	0.3035
15	0.000		0.3015	4.758	1000.1	0.3015	9.104	1040.9	0.2869
16	0.000		0.2863	4.597	980.7	0.2863	8.813	1021.8	0.2723
17	0.000		0.2731	4.252	940.5	0.2731	8.201	983.6	0.2596
18	0.000		0.2618	4.024	914.9	0.2618	7.758	954.0	0.2488
19	0.000		0.2519	3.769	887.1	0.2519	7.251	920.6	0.2394
20	0.000		0.2434	3.430	851.6	0.2434	6.581	878.5	0.2312
21	0.000		0.2363	2.967	805.5	0.2363	5.666	824.3	0.2245
22	0.000		0.2306	2.442	756.3	0.2306	4.626	766.7	0.2191
23	0.000		0.2268	1.043	639.1	0.2268	2.003	645.4	0.2155
24	0.000		0.2252	0.626	607.5	0.2252	1.188	609.9	0.2140

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.815	633.7	0.7396	2.527	645.2	0.7396	3.167	629.8	0.7396
2	6.499	886.6	0.7396	9.123	931.5	0.7396	11.378	840.6	0.7396
3	9.016	993.3	0.7298	12.454	999.6	0.7299	15.321	875.3	0.7318
4	10.303	1091.8	0.6882	14.036	1050.5	0.6884	17.172	912.3	0.6932
5	10.686	1137.9	0.6327	14.463	1058.4	0.6335	17.735	931.7	0.6419
6	10.647	1141.8	0.5736	14.383	1051.1	0.5753	17.749	945.3	0.5870
7	10.477	1128.1	0.5188	14.161	1041.9	0.5212	17.599	955.9	0.5350
8	10.316	1110.8	0.4720	13.962	1035.2	0.4746	17.457	964.4	0.4892
9	10.477	1114.6	0.4321	14.180	1045.2	0.4350	17.799	983.1	0.4494
10	10.327	1095.5	0.3979	13.984	1037.1	0.4008	17.606	983.5	0.4147
11	10.167	1073.1	0.3688	13.761	1026.2	0.3717	17.356	979.4	0.3849
12	10.000	1049.4	0.3438	13.518	1013.1	0.3466	17.067	972.5	0.3592
13	9.829	1024.5	0.3221	13.263	998.9	0.3251	16.753	963.6	0.3369
14	9.646	1000.2	0.3033	12.988	983.6	0.3062	16.412	953.8	0.3174
15	9.428	976.5	0.2867	12.669	967.0	0.2897	16.021	943.3	0.3004
16	9.119	946.9	0.2723	12.243	948.2	0.2753	15.513	931.4	0.2854
17	8.484	910.5	0.2596	11.442	922.2	0.2627	14.610	916.8	0.2726
18	8.020	878.6	0.2488	10.799	895.0	0.2519	13.826	897.1	0.2614
19	7.491	846.4	0.2394	10.054	863.4	0.2425	12.887	870.7	0.2515
20	6.792	805.8	0.2313	9.061	822.1	0.2343	11.583	830.1	0.2429
21	5.841	758.3	0.2246	7.740	773.1	0.2275	9.898	785.1	0.2359
22	4.761	708.7	0.2192	6.229	719.8	0.2221	7.918	730.7	0.2301
23	2.060	620.8	0.2156	2.676	624.5	0.2185	3.378	627.8	0.2263
24	1.220	594.6	0.2142	1.558	595.8	0.2170	1.936	596.9	0.2242

Table 4-75. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G10

	Assembly Number G10								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.646	617.4	0.7396	3.891	606.8	0.7396	4.394	625.1	0.7396
2	12.993	775.1	0.7396	13.792	726.4	0.7396	15.450	800.3	0.7396
3	17.345	796.0	0.7336	18.330	738.8	0.7347	20.424	826.6	0.7357
4	19.380	821.3	0.6976	20.445	755.1	0.7004	22.760	860.7	0.7027
5	20.050	836.5	0.6497	21.168	766.2	0.6545	23.625	883.4	0.6585
6	20.155	849.6	0.5981	21.330	778.2	0.6050	23.908	903.3	0.6106
7	20.094	862.6	0.5489	21.339	793.3	0.5579	24.030	922.2	0.5643
8	20.044	876.2	0.5050	21.372	811.5	0.5155	24.171	940.7	0.5223
9	20.537	899.2	0.4659	21.987	839.1	0.4775	24.945	968.7	0.4841
10	20.407	908.9	0.4313	21.935	857.3	0.4435	24.955	979.9	0.4497
11	20.197	915.2	0.4011	21.791	873.0	0.4134	24.839	984.9	0.4192
12	19.933	919.1	0.3749	21.582	886.3	0.3870	24.643	987.3	0.3925
13	19.633	921.3	0.3520	21.331	898.3	0.3638	24.418	992.1	0.3691
14	19.296	921.9	0.3319	21.036	908.8	0.3433	24.104	988.6	0.3481
15	18.898	920.8	0.3142	20.672	917.4	0.3252	23.694	980.2	0.3294
16	18.371	917.8	0.2986	20.172	924.2	0.3092	23.132	969.1	0.3130
17	17.436	912.8	0.2854	19.254	928.6	0.2957	22.138	955.6	0.2990
18	16.578	901.3	0.2736	18.383	925.3	0.2835	21.154	935.9	0.2865
19	15.513	882.1	0.2632	17.267	912.3	0.2726	19.894	911.4	0.2756
20	13.957	844.9	0.2540	15.566	876.6	0.2629	17.902	864.0	0.2657
21	11.982	804.2	0.2466	13.416	835.5	0.2552	15.422	813.4	0.2578
22	9.591	749.9	0.2404	10.761	777.1	0.2488	12.340	752.5	0.2511
23	4.080	635.4	0.2362	4.577	646.2	0.2443	5.242	636.7	0.2465
24	2.311	600.5	0.2335	2.574	605.6	0.2412	2.927	600.9	0.2433

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.884	609.8	0.7396
2	17.036	736.2	0.7396
3	22.426	754.5	0.7368
4	24.989	779.8	0.7056
5	26.022	799.0	0.6638
6	26.452	816.3	0.6185
7	26.706	832.1	0.5743
8	26.967	846.8	0.5336
9	27.901	866.8	0.4961
10	27.975	874.9	0.4620
11	27.879	877.4	0.4314
12	27.675	876.4	0.4041
13	27.419	872.5	0.3801
14	27.064	867.3	0.3585
15	26.604	861.0	0.3394
16	25.980	853.2	0.3225
17	24.917	844.7	0.3083
18	23.824	831.4	0.2954
19	22.406	812.5	0.2841
20	20.143	781.1	0.2739
21	17.360	747.5	0.2658
22	13.868	704.3	0.2588
23	5.884	618.8	0.2538
24	3.266	591.6	0.2501

Table 4-76. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G11

	Assembly Number G11								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.909	638.2	0.7396	1.731	643.1	0.7396
2	0.000		0.7396	3.165	874.4	0.7396	6.128	911.3	0.7396
3	0.000		0.7340	4.270	942.5	0.7340	8.444	1015.7	0.7311
4	0.000		0.6995	4.817	1007.3	0.6995	9.574	1104.0	0.6918
5	0.000		0.6525	4.958	1024.7	0.6525	9.834	1122.9	0.6393
6	0.000	Data Not	0.6005	4.921	1020.1	0.6005	9.716	1110.0	0.5832
7	0.000	Required	0.5498	4.849	1011.2	0.5498	9.520	1090.4	0.5304
8	0.000		0.5041	4.810	1006.4	0.5041	9.381	1074.9	0.4845
9	0.000		0.4638	4.968	1026.0	0.4638	9.583	1081.7	0.4449
10	0.000		0.4283	4.964	1025.5	0.4283	9.524	1073.2	0.4105
11	0.000		0.3976	4.955	1024.4	0.3976	9.472	1066.7	0.3808
12	0.000		0.3708	4.946	1023.2	0.3708	9.432	1061.9	0.3550
13	0.000		0.3472	4.938	1022.2	0.3472	9.407	1059.4	0.3324
14	0.000		0.3264	4.925	1020.6	0.3264	9.388	1058.5	0.3124
15	0.000		0.3079	4.889	1016.2	0.3079	9.350	1058.2	0.2946
16	0.000		0.2915	4.792	1004.2	0.2915	9.218	1052.9	0.2787
17	0.000		0.2773	4.488	967.8	0.2773	8.730	1025.6	0.2647
18	0.000		0.2650	4.298	945.7	0.2650	8.394	1004.4	0.2526
19	0.000		0.2542	4.074	920.4	0.2542	7.965	975.6	0.2421
20	0.000		0.2448	3.751	885.2	0.2448	7.327	932.9	0.2329
21	0.000		0.2369	3.267	835.0	0.2369	6.366	872.0	0.2252
22	0.000		0.2306	2.697	779.8	0.2306	5.219	804.0	0.2191
23	0.000		0.2266	1.163	648.5	0.2266	2.282	660.1	0.2150
24	0.000		0.2247	0.697	612.8	0.2247	1.350	617.9	0.2134

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.765	599.8	0.7396	2.289	621.5	0.7396	2.693	603.0	0.7396
2	6.257	725.7	0.7396	8.195	818.1	0.7396	9.647	729.4	0.7396
3	8.629	771.2	0.7315	11.211	866.1	0.7340	13.076	750.6	0.7362
4	9.791	814.1	0.6929	12.647	906.6	0.6985	14.707	773.4	0.7040
5	10.071	842.1	0.6412	13.026	921.8	0.6508	15.203	787.3	0.6610
6	9.969	865.2	0.5859	12.968	928.6	0.5992	15.246	799.6	0.6143
7	9.788	887.6	0.5337	12.815	932.9	0.5496	15.188	811.3	0.5692
8	9.669	918.3	0.4883	12.712	935.4	0.5051	15.176	822.7	0.5280
9	9.903	969.8	0.4489	13.024	947.7	0.4656	15.628	840.6	0.4906
10	9.867	1008.8	0.4144	12.965	944.1	0.4306	15.614	846.4	0.4566
11	9.829	1033.3	0.3845	12.892	938.6	0.4002	15.560	848.9	0.4263
12	9.788	1031.5	0.3582	12.814	932.8	0.3736	15.494	850.5	0.3993
13	9.753	1014.0	0.3352	12.740	926.7	0.3502	15.445	853.8	0.3755
14	9.720	989.9	0.3149	12.653	918.4	0.3294	15.417	861.5	0.3545
15	9.665	961.6	0.2969	12.521	906.6	0.3107	15.362	871.8	0.3359
16	9.514	930.9	0.2808	12.269	891.5	0.2942	15.165	879.2	0.3190
17	9.001	892.1	0.2666	11.609	869.9	0.2799	14.505	879.2	0.3045
18	8.643	859.4	0.2544	11.093	847.3	0.2672	13.923	870.3	0.2911
19	8.191	826.5	0.2437	10.457	821.7	0.2562	13.156	853.0	0.2790
20	7.526	789.6	0.2345	9.541	788.2	0.2465	11.982	819.8	0.2682
21	6.532	746.8	0.2267	8.235	748.4	0.2384	10.361	781.2	0.2594
22	5.347	700.4	0.2206	6.672	702.9	0.2318	8.357	730.2	0.2518
23	2.335	616.5	0.2164	2.889	618.0	0.2274	3.583	627.0	0.2463
24	1.379	591.5	0.2147	1.678	591.8	0.2249	2.041	595.5	0.2422

Table 4-76. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly G11

	Assembly Number G11								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.025	599.1	0.7396	3.210	594.9	0.7396	3.827	640.9	0.7396
2	10.812	709.1	0.7396	11.440	687.6	0.7396	13.594	887.5	0.7396
3	14.562	726.4	0.7380	15.341	698.3	0.7389	18.172	946.3	0.7383
4	16.355	746.7	0.7085	17.196	710.2	0.7107	20.482	1029.3	0.7093
5	16.961	760.8	0.6690	17.844	718.4	0.6731	21.270	1056.4	0.6701
6	17.101	773.5	0.6262	18.032	727.9	0.6324	21.435	1051.9	0.6274
7	17.137	785.9	0.5844	18.127	739.8	0.5927	21.463	1038.9	0.5857
8	17.220	798.7	0.5458	18.277	753.5	0.5558	21.551	1027.0	0.5475
9	17.817	818.7	0.5100	18.976	774.8	0.5214	22.274	1031.6	0.5124
10	17.874	828.7	0.4769	19.099	788.9	0.4892	22.340	1020.7	0.4802
11	17.869	835.6	0.4466	19.148	800.7	0.4596	22.328	1009.3	0.4507
12	17.837	840.5	0.4193	19.160	810.4	0.4324	22.279	997.9	0.4239
13	17.818	844.8	0.3949	19.175	818.0	0.4077	22.236	987.3	0.3997
14	17.813	848.1	0.3732	19.197	824.1	0.3856	22.204	977.5	0.3781
15	17.770	849.8	0.3536	19.178	829.5	0.3656	22.132	968.0	0.3585
16	17.567	849.0	0.3360	18.999	835.0	0.3476	21.897	958.0	0.3410
17	16.891	846.7	0.3211	18.345	840.0	0.3325	21.174	945.9	0.3261
18	16.261	839.8	0.3071	17.718	840.7	0.3182	20.435	926.6	0.3123
19	15.405	827.1	0.2945	16.836	834.8	0.3054	19.397	900.4	0.3000
20	14.035	800.0	0.2830	15.366	812.2	0.2937	17.620	851.2	0.2889
21	12.187	769.6	0.2741	13.394	785.1	0.2846	15.305	799.4	0.2801
22	9.846	726.8	0.2663	10.846	741.8	0.2767	12.336	740.4	0.2725
23	4.207	627.0	0.2603	4.632	633.5	0.2706	5.260	632.3	0.2667
24	2.368	595.5	0.2554	2.589	598.5	0.2651	2.926	599.1	0.2617

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.329	611.1	0.7396
2	15.272	747.7	0.7396
3	20.285	766.7	0.7390
4	22.769	786.4	0.7114
5	23.644	796.4	0.6742
6	23.870	803.5	0.6334
7	23.950	809.5	0.5934
8	24.086	815.2	0.5564
9	24.904	826.6	0.5219
10	24.986	828.5	0.4900
11	24.967	827.6	0.4606
12	24.896	825.0	0.4337
13	24.822	821.3	0.4092
14	24.756	817.2	0.3872
15	24.649	813.1	0.3673
16	24.380	809.1	0.3495
17	23.626	805.4	0.3344
18	22.829	798.7	0.3204
19	21.721	790.6	0.3083
20	19.887	784.1	0.2980
21	17.563	783.1	0.2910
22	14.268	746.9	0.2841
23	6.099	637.0	0.2784
24	3.362	600.2	0.2728

Table 4-77. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H1

	Assembly Number H1								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.845	632.3	0.7396	1.648	641.0	0.7396
2	0.000		0.7396	2.969	850.9	0.7396	5.878	903.0	0.7396
3	0.000		0.7363	4.049	917.1	0.7363	8.173	1007.8	0.7329
4	0.000		0.7048	4.637	984.8	0.7048	9.371	1099.4	0.6957
5	0.000		0.6605	4.855	1011.3	0.6605	9.730	1121.9	0.6450
6	0.000	Data Not	0.6099	4.893	1015.9	0.6099	9.700	1111.0	0.5897
7	0.000	Required	0.5592	4.866	1012.6	0.5592	9.547	1091.1	0.5369
8	0.000		0.5126	4.840	1009.4	0.5126	9.405	1073.2	0.4905
9	0.000		0.4713	4.984	1027.3	0.4713	9.566	1075.8	0.4504
10	0.000		0.4350	4.944	1022.3	0.4350	9.435	1061.9	0.4157
11	0.000		0.4039	4.884	1014.8	0.4039	9.290	1049.1	0.3859
12	0.000		0.3771	4.812	1006.0	0.3771	9.139	1037.3	0.3604
13	0.000		0.3536	4.734	996.5	0.3536	8.984	1026.0	0.3381
14	0.000		0.3332	4.646	985.9	0.3332	8.819	1014.8	0.3187
15	0.000		0.3153	4.543	973.6	0.3153	8.629	1002.3	0.3016
16	0.000		0.2995	4.415	958.6	0.2995	8.392	986.9	0.2865
17	0.000		0.2856	4.252	939.9	0.2856	8.086	967.1	0.2732
18	0.000		0.2735	4.044	916.6	0.2735	7.687	941.2	0.2616
19	0.000		0.2628	3.773	887.1	0.2628	7.166	908.5	0.2514
20	0.000		0.2538	3.301	838.1	0.2538	6.280	857.0	0.2428
21	0.000		0.2465	2.835	792.5	0.2465	5.375	805.7	0.2358
22	0.000		0.2406	2.323	745.3	0.2406	4.373	752.2	0.2304
23	0.000		0.2368	0.989	634.9	0.2368	1.885	639.5	0.2266
24	0.000		0.2352	0.588	604.7	0.2352	1.108	606.2	0.2252

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.679	596.1	0.7396	2.333	637.7	0.7396	2.959	628.1	0.7396
2	6.003	719.8	0.7396	8.433	897.6	0.7396	10.672	837.9	0.7396
3	8.387	809.6	0.7333	11.654	970.6	0.7332	14.520	874.7	0.7346
4	9.721	1020.2	0.6969	13.390	1038.5	0.6966	16.518	910.7	0.6999
5	10.142	1135.0	0.6466	13.897	1053.6	0.6462	17.152	928.7	0.6525
6	10.122	1154.7	0.5910	13.839	1046.9	0.5908	17.180	941.1	0.5999
7	9.963	1142.8	0.5378	13.623	1036.9	0.5375	17.029	950.6	0.5487
8	9.812	1125.2	0.4909	13.427	1029.1	0.4907	16.884	958.1	0.5027
9	9.973	1125.2	0.4506	13.641	1038.3	0.4504	17.216	975.8	0.4623
10	9.830	1102.2	0.4157	13.448	1029.6	0.4155	17.022	975.6	0.4271
11	9.673	1079.7	0.3859	13.224	1018.0	0.3858	16.769	971.2	0.3968
12	9.507	1052.2	0.3601	12.979	1004.6	0.3602	16.478	964.4	0.3706
13	9.338	1027.3	0.3379	12.722	989.9	0.3381	16.164	955.9	0.3479
14	9.158	1001.2	0.3185	12.447	974.2	0.3188	15.826	946.6	0.3281
15	8.952	974.2	0.3014	12.136	957.2	0.3019	15.446	936.6	0.3107
16	8.698	946.3	0.2865	11.760	937.8	0.2870	14.989	925.0	0.2955
17	8.372	914.6	0.2732	11.287	915.1	0.2739	14.414	910.5	0.2820
18	7.951	881.1	0.2616	10.688	888.3	0.2624	13.679	891.7	0.2702
19	7.405	844.5	0.2514	9.923	856.5	0.2524	12.727	866.4	0.2599
20	6.485	797.4	0.2429	8.669	810.3	0.2440	11.155	825.2	0.2512
21	5.544	750.4	0.2359	7.359	762.2	0.2372	9.479	780.2	0.2441
22	4.503	702.6	0.2304	5.902	711.4	0.2318	7.556	726.5	0.2384
23	1.940	618.6	0.2268	2.527	621.4	0.2282	3.214	626.3	0.2346
24	1.138	592.5	0.2253	1.461	594.2	0.2267	1.831	596.1	0.2327

Table 4-77. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H1

	Assembly Number H1								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.426	615.9	0.7396	3.661	604.8	0.7396	3.987	601.2	0.7396
2	12.270	772.3	0.7396	13.054	722.7	0.7396	14.208	719.2	0.7396
3	16.531	793.9	0.7362	17.502	735.7	0.7371	19.151	761.9	0.7383
4	18.708	818.5	0.7037	19.756	751.4	0.7062	22.030	853.9	0.7093
5	19.444	832.8	0.6592	20.542	761.7	0.6637	23.170	911.1	0.6688
6	19.559	845.2	0.6097	20.713	773.5	0.6162	23.555	947.6	0.6230
7	19.493	857.6	0.5613	20.717	788.4	0.5697	23.816	993.6	0.5776
8	19.438	870.8	0.5172	20.742	805.9	0.5273	23.975	1018.5	0.5346
9	19.918	893.1	0.4777	21.342	832.8	0.4890	24.708	1043.9	0.4949
10	19.785	902.5	0.4428	21.285	850.3	0.4546	24.692	1051.9	0.4593
11	19.570	908.4	0.4122	21.133	865.1	0.4243	24.516	1047.2	0.4277
12	19.302	912.0	0.3855	20.919	878.1	0.3975	24.243	1035.8	0.3999
13	19.003	914.3	0.3623	20.667	889.5	0.3739	23.923	1022.9	0.3755
14	18.670	915.1	0.3418	20.375	899.6	0.3530	23.562	1009.9	0.3542
15	18.284	914.2	0.3238	20.023	908.0	0.3346	23.140	996.9	0.3353
16	17.807	911.0	0.3078	19.573	914.8	0.3182	22.611	982.5	0.3187
17	17.190	904.5	0.2938	18.968	917.9	0.3038	21.909	965.1	0.3040
18	16.380	893.0	0.2815	18.145	914.6	0.2910	20.964	943.6	0.2912
19	15.303	874.1	0.2706	17.018	902.1	0.2799	19.702	920.5	0.2803
20	13.484	838.1	0.2616	15.061	868.5	0.2704	17.442	870.7	0.2709
21	11.518	797.7	0.2541	12.923	828.5	0.2627	14.948	815.9	0.2631
22	9.189	744.6	0.2480	10.333	771.3	0.2562	11.914	752.5	0.2564
23	3.895	633.1	0.2439	4.377	643.4	0.2517	5.042	636.6	0.2519
24	2.194	599.2	0.2414	2.449	604.2	0.2488	2.804	601.1	0.2490

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.569	619.6	0.7396
2	16.141	780.2	0.7396
3	21.637	809.1	0.7390
4	24.770	839.5	0.7112
5	26.047	856.4	0.6722
6	26.503	865.3	0.6280
7	26.793	869.0	0.5837
8	26.976	872.0	0.5415
9	27.792	882.6	0.5022
10	27.770	881.9	0.4668
11	27.561	877.6	0.4352
12	27.242	871.8	0.4073
13	26.868	864.9	0.3827
14	26.450	857.8	0.3611
15	25.967	850.2	0.3421
16	25.370	841.8	0.3253
17	24.584	831.6	0.3104
18	23.526	818.1	0.2974
19	22.100	798.8	0.2863
20	19.572	768.4	0.2768
21	16.772	735.0	0.2687
22	13.340	693.8	0.2620
23	5.637	614.5	0.2572
24	3.119	589.4	0.2541

Table 4-78. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H2

	Assembly Number H2								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.851	632.9	0.7396	1.548	629.7	0.7396
2	0.000		0.7396	3.020	856.8	0.7396	5.597	856.4	0.7396
3	0.000		0.7352	4.171	930.7	0.7352	7.936	957.6	0.7344
4	0.000		0.7018	4.823	1007.3	0.7018	9.276	1056.2	0.6989
5	0.000		0.6548	5.073	1038.5	0.6548	9.775	1094.4	0.6492
6	0.000	Data Not	0.6014	5.110	1043.1	0.6014	9.830	1097.2	0.5933
7	0.000	Required	0.5486	5.066	1037.6	0.5486	9.720	1086.9	0.5390
8	0.000		0.5011	5.019	1031.6	0.5011	9.590	1074.1	0.4910
9	0.000		0.4596	5.149	1048.1	0.4596	9.761	1080.4	0.4497
10	0.000		0.4236	5.092	1040.9	0.4236	9.629	1068.9	0.4142
11	0.000		0.3930	5.018	1031.5	0.3930	9.483	1058.0	0.3840
12	0.000		0.3665	4.936	1021.3	0.3665	9.335	1048.0	0.3580
13	0.000		0.3436	4.852	1010.9	0.3436	9.196	1039.9	0.3355
14	0.000		0.3237	4.761	999.8	0.3237	9.064	1033.8	0.3159
15	0.000		0.3062	4.652	986.6	0.3062	8.904	1026.3	0.2987
16	0.000		0.2909	4.507	969.4	0.2909	8.667	1012.9	0.2834
17	0.000		0.2774	4.318	947.4	0.2774	8.321	990.6	0.2700
18	0.000		0.2656	4.098	922.6	0.2656	7.896	962.1	0.2583
19	0.000		0.2552	3.833	893.5	0.2552	7.373	927.6	0.2480
20	0.000		0.2465	3.369	845.0	0.2465	6.486	873.8	0.2393
21	0.000		0.2394	2.894	798.1	0.2394	5.546	818.5	0.2323
22	0.000		0.2337	2.358	748.4	0.2337	4.480	759.8	0.2267
23	0.000		0.2300	0.998	635.6	0.2300	1.918	641.7	0.2231
24	0.000		0.2285	0.591	604.9	0.2285	1.119	606.9	0.2216

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.600	622.1	0.7396	2.321	646.2	0.7396	3.000	634.2	0.7396
2	5.790	822.0	0.7396	8.447	936.7	0.7396	10.882	867.1	0.7396
3	8.217	906.9	0.7345	11.775	1019.2	0.7324	14.965	919.4	0.7330
4	9.604	982.5	0.6992	13.520	1082.7	0.6943	17.088	974.7	0.6958
5	10.125	1020.2	0.6496	14.113	1095.9	0.6426	17.862	1002.4	0.6455
6	10.190	1037.9	0.5939	14.156	1091.9	0.5858	17.989	1015.6	0.5902
7	10.087	1050.4	0.5396	14.019	1085.6	0.5315	17.888	1021.3	0.5368
8	9.968	1070.5	0.4915	13.881	1082.1	0.4838	17.767	1024.0	0.4894
9	10.165	1119.4	0.4501	14.154	1096.1	0.4428	18.133	1038.9	0.4483
10	10.048	1148.8	0.4144	13.993	1088.0	0.4075	17.939	1033.6	0.4127
11	9.909	1162.7	0.3839	13.790	1076.3	0.3774	17.679	1024.5	0.3824
12	9.756	1152.7	0.3577	13.564	1063.1	0.3517	17.388	1014.2	0.3564
13	9.603	1125.2	0.3351	13.334	1049.4	0.3296	17.102	1005.4	0.3340
14	9.455	1094.7	0.3154	13.094	1033.2	0.3103	16.831	1000.6	0.3145
15	9.277	1061.3	0.2982	12.805	1014.1	0.2934	16.519	997.0	0.2975
16	9.019	1023.7	0.2829	12.413	991.5	0.2784	16.088	991.0	0.2824
17	8.650	984.2	0.2696	11.883	965.1	0.2654	15.465	976.8	0.2690
18	8.199	941.5	0.2578	11.224	932.1	0.2539	14.647	953.1	0.2573
19	7.644	891.6	0.2477	10.403	891.6	0.2440	13.590	919.0	0.2472
20	6.715	830.4	0.2390	9.077	834.6	0.2357	11.870	864.9	0.2386
21	5.731	770.9	0.2320	7.669	777.9	0.2290	10.022	808.5	0.2317
22	4.620	714.5	0.2265	6.099	720.9	0.2238	7.919	745.2	0.2263
23	1.977	622.8	0.2229	2.600	625.1	0.2205	3.359	633.3	0.2228
24	1.152	595.6	0.2214	1.496	596.4	0.2192	1.910	600.2	0.2214

Table 4-78. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H2

	Assembly Number H2								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.602	633.1	0.7396	3.944	626.4	0.7396	4.251	598.7	0.7396
2	12.963	848.6	0.7396	14.102	808.6	0.7396	15.150	703.1	0.7396
3	17.663	892.5	0.7336	19.098	835.3	0.7345	20.478	725.4	0.7359
4	20.094	940.9	0.6976	21.650	863.5	0.6995	23.231	752.5	0.7032
5	21.006	963.4	0.6487	22.613	875.7	0.6521	24.342	773.0	0.6587
6	21.191	973.1	0.5948	22.839	885.6	0.5998	24.689	790.3	0.6095
7	21.119	977.9	0.5425	22.814	897.1	0.5486	24.769	805.6	0.5612
8	21.028	983.0	0.4956	22.779	911.1	0.5025	24.830	819.8	0.5172
9	21.499	1000.9	0.4546	23.352	937.0	0.4618	25.524	838.1	0.4777
10	21.325	1004.4	0.4190	23.230	950.6	0.4262	25.443	844.4	0.4425
11	21.070	1005.3	0.3884	23.018	962.0	0.3954	25.234	844.9	0.4116
12	20.777	1004.9	0.3621	22.762	971.9	0.3689	24.960	842.1	0.3845
13	20.488	1004.4	0.3394	22.505	980.5	0.3459	24.672	837.3	0.3608
14	20.202	1001.8	0.3195	22.245	987.6	0.3257	24.375	831.7	0.3400
15	19.860	996.6	0.3021	21.923	993.1	0.3078	24.008	824.9	0.3215
16	19.371	986.7	0.2865	21.446	996.4	0.2920	23.478	816.9	0.3052
17	18.661	972.1	0.2729	20.730	994.7	0.2780	22.694	806.9	0.2908
18	17.711	950.3	0.2609	19.743	984.6	0.2657	21.613	793.2	0.2781
19	16.463	919.7	0.2504	18.409	961.4	0.2549	20.144	773.9	0.2669
20	14.417	869.8	0.2416	16.177	913.3	0.2458	17.698	744.3	0.2576
21	12.207	817.8	0.2345	13.744	859.0	0.2385	15.026	712.6	0.2499
22	9.648	756.8	0.2290	10.881	790.4	0.2327	11.862	674.5	0.2436
23	4.090	638.5	0.2254	4.619	651.8	0.2290	5.011	605.2	0.2393
24	2.308	602.9	0.2237	2.595	609.6	0.2272	2.798	584.1	0.2367

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.024	640.5	0.7396
2	17.621	853.3	0.7396
3	23.580	884.9	0.7357
4	26.601	920.3	0.7032
5	27.830	936.3	0.6592
6	28.253	946.8	0.6107
7	28.365	951.2	0.5631
8	28.446	954.0	0.5195
9	29.222	965.6	0.4802
10	29.125	963.3	0.4451
11	28.878	957.9	0.4144
12	28.549	950.2	0.3873
13	28.197	941.4	0.3636
14	27.830	931.8	0.3427
15	27.389	921.7	0.3242
16	26.777	910.8	0.3079
17	25.898	898.2	0.2935
18	24.689	881.6	0.2808
19	23.041	858.9	0.2696
20	20.288	821.4	0.2602
21	17.255	779.5	0.2524
22	13.623	728.3	0.2460
23	5.776	630.0	0.2415
24	3.213	598.3	0.2389

Table 4-79. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H3

	Assembly Number H3								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.815	629.6	0.7396	1.596	638.6	0.7396
2	0.000		0.7396	2.882	840.8	0.7396	5.735	895.0	0.7396
3	0.000		0.7369	3.951	906.3	0.7369	8.053	1004.6	0.7329
4	0.000		0.7061	4.548	974.2	0.7061	9.331	1107.2	0.6952
5	0.000		0.6625	4.781	1002.2	0.6625	9.779	1141.8	0.6433
6	0.000	Data Not	0.6122	4.829	1008.1	0.6122	9.811	1139.2	0.5866
7	0.000	Required	0.5616	4.810	1005.7	0.5616	9.703	1124.7	0.5328
8	0.000		0.5148	4.794	1003.8	0.5148	9.595	1110.0	0.4856
9	0.000		0.4733	4.952	1023.3	0.4733	9.797	1117.0	0.4451
10	0.000		0.4366	4.937	1021.4	0.4366	9.717	1106.7	0.4099
11	0.000		0.4051	4.912	1018.3	0.4051	9.640	1098.5	0.3797
12	0.000		0.3777	4.894	1016.1	0.3777	9.587	1093.0	0.3535
13	0.000		0.3535	4.904	1017.3	0.3535	9.574	1089.4	0.3308
14	0.000		0.3322	4.943	1022.1	0.3322	9.598	1087.1	0.3106
15	0.000		0.3129	4.990	1028.0	0.3129	9.620	1083.2	0.2927
16	0.000		0.2955	5.003	1029.6	0.2955	9.580	1075.0	0.2765
17	0.000		0.2799	4.947	1022.6	0.2799	9.419	1059.0	0.2622
18	0.000		0.2659	4.796	1004.0	0.2659	9.099	1033.8	0.2494
19	0.000		0.2538	4.531	972.2	0.2538	8.585	997.8	0.2382
20	0.000		0.2435	4.001	911.8	0.2435	7.602	935.6	0.2287
21	0.000		0.2352	3.453	853.5	0.2352	6.546	870.9	0.2210
22	0.000		0.2286	2.838	792.8	0.2286	5.340	801.4	0.2150
23	0.000		0.2244	1.216	652.5	0.2244	2.321	658.6	0.2109
24	0.000		0.2226	0.726	614.9	0.2226	1.371	617.1	0.2093

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.657	633.6	0.7396	2.429	652.8	0.7396	3.184	643.1	0.7396
2	5.968	887.9	0.7396	8.823	972.1	0.7396	11.523	908.0	0.7396
3	8.392	1001.2	0.7328	12.211	1065.1	0.7301	15.741	969.0	0.7304
4	9.725	1100.3	0.6949	13.912	1133.4	0.6886	17.845	1031.5	0.6895
5	10.193	1138.9	0.6427	14.423	1141.7	0.6334	18.521	1058.3	0.6352
6	10.228	1144.8	0.5857	14.390	1128.7	0.5748	18.536	1066.2	0.5772
7	10.118	1140.9	0.5317	14.202	1113.9	0.5204	18.347	1066.1	0.5230
8	10.010	1140.9	0.4845	14.039	1103.5	0.4736	18.170	1063.7	0.4759
9	10.223	1162.7	0.4438	14.306	1113.7	0.4336	18.511	1076.1	0.4357
10	10.141	1158.7	0.4086	14.162	1102.1	0.3991	18.313	1067.1	0.4009
11	10.058	1146.8	0.3784	13.995	1086.5	0.3696	18.070	1054.5	0.3713
12	9.994	1125.2	0.3523	13.833	1068.7	0.3444	17.818	1039.8	0.3459
13	9.966	1096.6	0.3296	13.698	1049.6	0.3225	17.592	1025.2	0.3241
14	9.974	1066.8	0.3096	13.589	1029.1	0.3034	17.393	1011.0	0.3049
15	9.979	1036.1	0.2918	13.466	1007.1	0.2865	17.178	996.7	0.2880
16	9.919	1001.2	0.2758	13.262	983.1	0.2713	16.870	980.8	0.2730
17	9.736	964.3	0.2616	12.909	955.4	0.2578	16.386	961.1	0.2596
18	9.391	924.0	0.2489	12.358	923.1	0.2459	15.658	935.2	0.2477
19	8.847	878.1	0.2378	11.557	884.3	0.2354	14.617	901.2	0.2374
20	7.825	822.0	0.2284	10.155	830.1	0.2266	12.832	849.7	0.2286
21	6.727	765.7	0.2208	8.648	775.7	0.2194	10.908	797.1	0.2216
22	5.477	710.9	0.2148	6.946	719.7	0.2138	8.703	738.1	0.2160
23	2.379	621.7	0.2107	3.001	625.0	0.2101	3.742	631.5	0.2123
24	1.403	594.5	0.2092	1.747	596.4	0.2086	2.152	599.4	0.2107

Table 4-79. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H3

	Assembly Number H3								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.808	635.9	0.7396	4.142	624.8	0.7396	4.656	626.5	0.7396
2	13.664	858.5	0.7396	14.769	800.0	0.7396	16.445	803.0	0.7396
3	18.507	903.0	0.7312	19.901	826.0	0.7323	22.020	830.0	0.7335
4	20.907	950.0	0.6918	22.422	853.8	0.6942	24.757	863.4	0.6970
5	21.705	970.1	0.6393	23.279	867.8	0.6434	25.753	885.7	0.6483
6	21.770	978.4	0.5830	23.394	879.8	0.5888	25.989	905.6	0.5956
7	21.606	982.7	0.5299	23.286	893.4	0.5371	25.994	924.6	0.5453
8	21.457	987.4	0.4834	23.201	909.3	0.4914	26.015	942.7	0.5003
9	21.903	1005.4	0.4432	23.752	936.0	0.4515	26.720	969.9	0.4605
10	21.719	1007.9	0.4083	23.621	949.8	0.4166	26.642	979.4	0.4253
11	21.477	1008.0	0.3785	23.421	960.9	0.3866	26.461	982.8	0.3949
12	21.218	1006.8	0.3528	23.199	970.8	0.3606	26.243	983.6	0.3685
13	20.978	1004.4	0.3305	22.992	979.7	0.3379	26.051	986.3	0.3457
14	20.755	1000.2	0.3109	22.795	986.8	0.3180	25.826	981.2	0.3251
15	20.498	993.0	0.2936	22.558	992.2	0.3002	25.533	971.1	0.3069
16	20.125	982.0	0.2782	22.195	995.0	0.2844	25.098	958.3	0.2906
17	19.547	966.2	0.2645	21.609	992.8	0.2704	24.422	942.6	0.2763
18	18.684	944.1	0.2524	20.704	981.3	0.2580	23.401	922.7	0.2636
19	17.453	913.9	0.2418	19.384	957.4	0.2472	21.935	898.3	0.2528
20	15.346	864.9	0.2329	17.091	909.5	0.2380	19.361	853.2	0.2435
21	13.063	813.6	0.2257	14.584	855.2	0.2306	16.527	803.8	0.2358
22	10.409	753.8	0.2200	11.625	786.7	0.2246	13.150	744.8	0.2297
23	4.470	638.2	0.2162	4.995	651.1	0.2208	5.648	635.2	0.2256
24	2.548	602.7	0.2145	2.832	609.1	0.2187	3.179	600.2	0.2233

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.176	613.0	0.7396
2	18.098	744.4	0.7396
3	24.089	761.6	0.7347
4	27.038	785.4	0.7002
5	28.188	803.1	0.6541
6	28.558	818.9	0.6042
7	28.686	833.7	0.5562
8	28.819	847.4	0.5129
9	29.676	866.3	0.4738
10	29.656	873.7	0.4391
11	29.490	875.6	0.4084
12	29.258	873.8	0.3816
13	29.030	869.2	0.3581
14	28.759	863.4	0.3370
15	28.409	856.3	0.3182
16	27.910	848.3	0.3015
17	27.153	838.4	0.2867
18	26.025	825.5	0.2738
19	24.406	807.3	0.2627
20	21.573	777.5	0.2533
21	18.436	744.1	0.2455
22	14.652	701.5	0.2390
23	6.288	618.6	0.2346
24	3.519	591.6	0.2316

Table 4-80. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H4

	Assembly Number H4								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.840	631.9	0.7396	1.579	634.1	0.7396
2	0.000		0.7396	2.970	851.0	0.7396	5.685	875.5	0.7396
3	0.000		0.7358	4.098	922.6	0.7358	8.044	982.6	0.7336
4	0.000		0.7031	4.752	998.7	0.7031	9.390	1084.4	0.6969
5	0.000		0.6568	5.022	1032.0	0.6568	9.888	1120.4	0.6458
6	0.000	Data Not	0.6038	5.082	1039.6	0.6038	9.939	1119.0	0.5891
7	0.000	Required	0.5510	5.059	1036.7	0.5510	9.827	1104.8	0.5345
8	0.000		0.5033	5.028	1032.8	0.5033	9.698	1089.4	0.4866
9	0.000		0.4615	5.170	1050.8	0.4615	9.869	1093.9	0.4455
10	0.000		0.4251	5.121	1044.5	0.4251	9.736	1080.9	0.4102
11	0.000		0.3941	5.050	1035.5	0.3941	9.587	1068.9	0.3801
12	0.000		0.3674	4.967	1025.1	0.3674	9.431	1057.8	0.3542
13	0.000		0.3443	4.878	1014.1	0.3443	9.278	1048.2	0.3320
14	0.000		0.3242	4.780	1002.1	0.3242	9.130	1040.7	0.3125
15	0.000		0.3066	4.664	988.0	0.3066	8.955	1032.0	0.2954
16	0.000		0.2912	4.516	970.5	0.2912	8.708	1017.6	0.2803
17	0.000		0.2777	4.325	948.2	0.2777	8.357	994.7	0.2671
18	0.000		0.2658	4.096	922.3	0.2658	7.913	964.7	0.2555
19	0.000		0.2555	3.815	891.6	0.2555	7.357	927.9	0.2455
20	0.000		0.2468	3.336	841.6	0.2468	6.437	871.8	0.2369
21	0.000		0.2397	2.858	794.7	0.2397	5.488	815.9	0.2301
22	0.000		0.2341	2.331	746.0	0.2341	4.439	758.3	0.2247
23	0.000		0.2304	0.990	635.0	0.2304	1.907	641.4	0.2211
24	0.000		0.2289	0.589	604.7	0.2289	1.119	607.0	0.2197

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.640	633.6	0.7396	2.380	648.6	0.7396	3.185	649.0	0.7396
2	5.915	882.8	0.7396	8.632	947.3	0.7396	11.500	934.8	0.7396
3	8.376	989.3	0.7336	12.015	1033.2	0.7315	15.763	1002.3	0.7308
4	9.773	1079.7	0.6966	13.796	1102.4	0.6917	17.977	1072.1	0.6902
5	10.290	1115.6	0.6453	14.409	1120.5	0.6379	18.771	1102.7	0.6358
6	10.347	1127.2	0.5884	14.456	1118.6	0.5795	18.872	1112.1	0.5768
7	10.237	1131.1	0.5336	14.316	1112.9	0.5243	18.733	1112.2	0.5213
8	10.110	1135.0	0.4856	14.174	1110.1	0.4764	18.579	1110.2	0.4732
9	10.294	1160.7	0.4444	14.443	1126.2	0.4355	18.924	1123.4	0.4323
10	10.159	1156.7	0.4091	14.267	1118.4	0.4004	18.692	1113.6	0.3972
11	10.004	1144.8	0.3789	14.041	1105.0	0.3706	18.381	1099.0	0.3675
12	9.837	1123.3	0.3531	13.784	1088.4	0.3452	18.024	1082.0	0.3421
13	9.671	1098.4	0.3308	13.516	1069.8	0.3233	17.650	1064.2	0.3204
14	9.509	1072.3	0.3114	13.243	1049.9	0.3044	17.267	1046.2	0.3016
15	9.318	1043.2	0.2945	12.930	1028.6	0.2878	16.840	1027.8	0.2852
16	9.053	1011.5	0.2794	12.530	1005.5	0.2732	16.311	1007.4	0.2708
17	8.682	977.5	0.2663	11.995	978.1	0.2604	15.619	983.2	0.2581
18	8.214	938.3	0.2548	11.317	944.3	0.2492	14.733	952.1	0.2469
19	7.628	891.6	0.2448	10.456	901.9	0.2396	13.599	912.8	0.2375
20	6.666	830.4	0.2363	9.082	842.1	0.2316	11.806	855.8	0.2294
21	5.673	770.9	0.2295	7.650	782.9	0.2251	9.924	798.8	0.2230
22	4.580	715.7	0.2242	6.085	724.0	0.2202	7.837	737.5	0.2182
23	1.967	623.9	0.2207	2.603	626.5	0.2169	3.340	631.2	0.2150
24	1.152	595.6	0.2192	1.506	597.4	0.2157	1.913	599.6	0.2139

Table 4-80. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H4

	Assembly Number H4								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.810	636.0	0.7396	4.160	628.1	0.7396	4.609	617.7	0.7396
2	13.644	859.0	0.7396	14.795	811.7	0.7396	16.312	776.6	0.7396
3	18.526	902.5	0.7307	19.971	837.6	0.7314	21.972	812.3	0.7331
4	21.025	947.7	0.6907	22.583	864.0	0.6925	24.866	855.3	0.6964
5	21.923	964.8	0.6373	23.530	875.7	0.6405	25.998	884.7	0.6471
6	22.052	969.4	0.5797	23.699	885.3	0.5846	26.303	907.1	0.5935
7	21.920	970.6	0.5257	23.612	896.4	0.5318	26.316	923.9	0.5424
8	21.780	972.9	0.4788	23.527	910.0	0.4859	26.310	937.4	0.4970
9	22.227	990.1	0.4390	24.068	933.9	0.4463	26.959	956.2	0.4573
10	22.062	1001.6	0.4049	23.949	945.9	0.4125	26.844	956.9	0.4228
11	21.782	1007.0	0.3755	23.710	956.7	0.3830	26.580	952.5	0.3927
12	21.494	1019.0	0.3507	23.481	972.4	0.3581	26.305	944.5	0.3671
13	21.237	1039.8	0.3294	23.343	1005.0	0.3372	26.110	934.6	0.3455
14	20.994	1065.3	0.3109	23.154	1020.2	0.3182	25.866	925.2	0.3259
15	20.559	1063.8	0.2936	22.768	1034.1	0.3005	25.433	917.3	0.3079
16	19.945	1048.3	0.2780	22.269	1067.8	0.2851	24.878	907.9	0.2922
17	19.128	1025.9	0.2642	21.471	1073.4	0.2709	24.013	896.8	0.2779
18	18.069	995.8	0.2523	20.357	1057.1	0.2583	22.798	880.4	0.2652
19	16.698	956.0	0.2420	18.871	1023.8	0.2474	21.155	855.4	0.2541
20	14.526	895.9	0.2335	16.474	962.0	0.2384	18.484	813.7	0.2449
21	12.233	835.2	0.2267	13.917	894.4	0.2311	15.616	768.8	0.2375
22	9.651	767.8	0.2215	10.992	814.1	0.2255	12.305	716.6	0.2316
23	4.106	642.4	0.2181	4.683	660.5	0.2218	5.234	623.3	0.2279
24	2.333	605.2	0.2166	2.647	614.2	0.2202	2.936	593.7	0.2258

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.363	638.4	0.7396
2	18.703	842.1	0.7396
3	24.961	870.5	0.7340
4	28.100	902.2	0.6985
5	29.325	914.5	0.6510
6	29.657	918.1	0.5991
7	29.673	918.5	0.5492
8	29.668	918.6	0.5044
9	30.392	928.8	0.4648
10	30.259	926.3	0.4302
11	29.959	921.5	0.3999
12	29.632	914.5	0.3741
13	29.372	905.9	0.3521
14	29.065	897.6	0.3322
15	28.575	890.1	0.3141
16	27.959	882.2	0.2983
17	27.021	872.9	0.2839
18	25.703	859.9	0.2711
19	23.899	840.0	0.2601
20	20.932	804.6	0.2509
21	17.715	764.9	0.2434
22	13.949	716.1	0.2374
23	5.938	624.4	0.2337
24	3.309	594.6	0.2313

Table 4-81. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H5

	Assembly Number H5								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.822	630.2	0.7396	1.630	641.5	0.7396
2	0.000		0.7396	2.904	843.3	0.7396	5.854	908.9	0.7396
3	0.000		0.7367	3.969	908.3	0.7367	8.186	1021.2	0.7320
4	0.000		0.7058	4.544	973.8	0.7058	9.422	1122.3	0.6933
5	0.000		0.6622	4.745	997.8	0.6622	9.799	1151.0	0.6407
6	0.000	Data Not	0.6126	4.763	1000.0	0.6126	9.761	1141.8	0.5841
7	0.000	Required	0.5628	4.724	995.3	0.5628	9.601	1122.2	0.5310
8	0.000		0.5170	4.700	992.4	0.5170	9.465	1104.3	0.4847
9	0.000		0.4759	4.860	1011.9	0.4759	9.657	1109.4	0.4449
10	0.000		0.4397	4.855	1011.3	0.4397	9.582	1098.3	0.4103
11	0.000		0.4082	4.843	1009.8	0.4082	9.517	1090.0	0.3805
12	0.000		0.3808	4.838	1009.2	0.3808	9.477	1084.6	0.3547
13	0.000		0.3566	4.861	1012.0	0.3566	9.478	1081.2	0.3320
14	0.000		0.3350	4.913	1018.4	0.3350	9.519	1079.5	0.3119
15	0.000		0.3156	4.973	1025.9	0.3156	9.564	1077.2	0.2940
16	0.000		0.2979	5.002	1029.5	0.2979	9.555	1071.4	0.2778
17	0.000		0.2820	4.961	1024.4	0.2820	9.430	1058.6	0.2633
18	0.000		0.2679	4.819	1006.8	0.2679	9.138	1036.2	0.2504
19	0.000		0.2555	4.559	975.5	0.2555	8.639	1001.5	0.2390
20	0.000		0.2451	4.028	914.8	0.2451	7.662	940.0	0.2294
21	0.000		0.2366	3.483	856.6	0.2366	6.611	875.2	0.2216
22	0.000		0.2299	2.871	795.9	0.2299	5.410	805.6	0.2155
23	0.000		0.2256	1.235	654.0	0.2256	2.361	660.6	0.2113
24	0.000		0.2237	0.739	615.9	0.2237	1.398	618.3	0.2096

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.689	631.0	0.7396	2.347	638.2	0.7396	3.119	645.1	0.7396
2	6.073	864.3	0.7396	8.497	896.6	0.7396	11.273	920.0	0.7396
3	8.501	961.0	0.7321	11.783	973.1	0.7323	15.464	991.9	0.7318
4	9.785	1043.2	0.6934	13.476	1042.3	0.6934	17.638	1068.9	0.6922
5	10.183	1081.6	0.6408	14.026	1069.4	0.6407	18.406	1105.8	0.6387
6	10.151	1092.8	0.5841	14.035	1076.8	0.5836	18.484	1117.8	0.5807
7	9.993	1096.6	0.5309	13.880	1077.4	0.5296	18.330	1118.0	0.5259
8	9.858	1098.4	0.4845	13.752	1078.7	0.4825	18.182	1114.5	0.4783
9	10.059	1115.6	0.4446	14.050	1096.5	0.4420	18.547	1126.2	0.4376
10	9.981	1109.9	0.4099	13.938	1090.2	0.4070	18.364	1113.8	0.4025
11	9.907	1092.8	0.3800	13.797	1077.9	0.3769	18.122	1096.4	0.3727
12	9.857	1074.2	0.3542	13.656	1061.5	0.3511	17.861	1076.1	0.3471
13	9.846	1052.2	0.3315	13.543	1043.4	0.3287	17.616	1054.2	0.3250
14	9.873	1027.3	0.3116	13.464	1024.9	0.3090	17.399	1031.8	0.3057
15	9.906	1006.4	0.2937	13.388	1006.3	0.2916	17.177	1008.7	0.2887
16	9.885	985.9	0.2776	13.253	987.2	0.2760	16.885	984.4	0.2736
17	9.746	962.6	0.2631	12.984	965.9	0.2620	16.436	957.4	0.2601
18	9.437	935.1	0.2503	12.507	939.1	0.2496	15.738	925.2	0.2481
19	8.914	897.7	0.2390	11.753	903.5	0.2387	14.709	886.9	0.2377
20	7.899	841.7	0.2294	10.363	848.8	0.2294	12.916	833.7	0.2288
21	6.806	784.0	0.2216	8.857	792.6	0.2220	10.992	782.0	0.2216
22	5.560	726.7	0.2155	7.143	733.4	0.2162	8.803	727.2	0.2160
23	2.425	628.2	0.2114	3.104	631.0	0.2122	3.811	628.2	0.2123
24	1.434	598.7	0.2098	1.810	599.6	0.2106	2.202	598.2	0.2107

Table 4-81. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H5

	Assembly Number H5								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.857	650.8	0.7396	4.298	647.0	0.7396	4.815	627.0	0.7396
2	13.813	927.3	0.7396	15.263	891.2	0.7396	16.985	810.8	0.7396
3	18.761	989.1	0.7312	20.577	927.5	0.7315	22.827	850.1	0.7329
4	21.277	1049.2	0.6912	23.220	960.6	0.6922	25.760	896.5	0.6953
5	22.142	1067.0	0.6377	24.119	969.7	0.6396	26.836	926.1	0.6448
6	22.213	1065.7	0.5798	24.206	974.0	0.5827	27.042	946.6	0.5898
7	22.023	1059.1	0.5254	24.039	980.2	0.5289	26.955	960.6	0.5373
8	21.852	1054.9	0.4781	23.905	990.3	0.4818	26.881	971.3	0.4906
9	22.286	1067.5	0.4375	24.429	1015.4	0.4414	27.502	988.8	0.4499
10	22.086	1064.4	0.4026	24.270	1027.0	0.4064	27.342	988.7	0.4145
11	21.824	1060.7	0.3728	24.045	1037.6	0.3765	27.086	983.0	0.3841
12	21.540	1056.5	0.3472	23.799	1048.6	0.3507	26.796	975.1	0.3579
13	21.272	1052.3	0.3251	23.566	1058.9	0.3283	26.520	967.4	0.3351
14	21.017	1045.4	0.3058	23.342	1068.1	0.3087	26.264	961.7	0.3151
15	20.735	1034.6	0.2887	23.080	1074.0	0.2913	25.990	959.6	0.2976
16	20.353	1018.7	0.2735	22.703	1075.5	0.2758	25.605	958.1	0.2818
17	19.780	997.2	0.2600	22.109	1069.2	0.2621	24.977	952.2	0.2679
18	18.916	969.1	0.2481	21.181	1050.4	0.2499	23.959	936.5	0.2555
19	17.661	932.2	0.2376	19.809	1016.8	0.2392	22.416	907.6	0.2446
20	15.511	877.0	0.2287	17.433	955.1	0.2302	19.730	857.5	0.2353
21	13.200	821.0	0.2216	14.861	888.8	0.2228	16.798	802.9	0.2278
22	10.550	759.1	0.2160	11.879	811.4	0.2171	13.377	741.2	0.2218
23	4.569	641.5	0.2123	5.155	662.1	0.2134	5.798	634.0	0.2181
24	2.623	605.3	0.2107	2.948	616.1	0.2117	3.291	599.7	0.2161

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.591	640.9	0.7396
2	19.424	848.8	0.7396
3	25.863	876.5	0.7336
4	29.054	910.1	0.6974
5	30.247	925.8	0.6486
6	30.506	933.0	0.5953
7	30.443	936.3	0.5439
8	30.381	937.9	0.4978
9	31.075	948.0	0.4572
10	30.893	945.0	0.4217
11	30.592	938.8	0.3912
12	30.245	931.0	0.3648
13	29.907	922.6	0.3418
14	29.589	914.2	0.3216
15	29.258	906.6	0.3038
16	28.824	900.2	0.2879
17	28.142	893.1	0.2739
18	27.037	881.9	0.2614
19	25.342	862.5	0.2505
20	22.358	825.9	0.2412
21	19.063	783.5	0.2336
22	15.157	730.3	0.2275
23	6.577	631.3	0.2237
24	3.707	598.4	0.2214

Table 4-82. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H6

	Assembly Number H6								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.898	637.1	0.7396	1.782	649.7	0.7396
2	0.000		0.7396	3.171	874.7	0.7396	6.409	951.5	0.7396
3	0.000		0.7329	4.348	950.9	0.7329	8.941	1077.5	0.7274
4	0.000		0.6959	4.999	1029.1	0.6959	10.248	1183.6	0.6824
5	0.000		0.6449	5.238	1059.6	0.6449	10.627	1207.6	0.6230
6	0.000	Data Not	0.5886	5.269	1063.6	0.5886	10.577	1193.7	0.5615
7	0.000	Required	0.5344	5.230	1058.5	0.5344	10.406	1171.3	0.5059
8	0.000		0.4867	5.198	1054.4	0.4867	10.253	1151.2	0.4590
9	0.000		0.4455	5.353	1074.5	0.4455	10.436	1155.8	0.4194
10	0.000		0.4097	5.322	1070.5	0.4097	10.320	1141.8	0.3855
11	0.000		0.3792	5.279	1064.9	0.3792	10.204	1129.9	0.3565
12	0.000		0.3528	5.231	1058.7	0.3528	10.094	1119.9	0.3317
13	0.000		0.3300	5.185	1052.7	0.3300	9.997	1111.8	0.3102
14	0.000		0.3100	5.138	1046.7	0.3100	9.905	1104.6	0.2913
15	0.000		0.2924	5.076	1038.8	0.2924	9.786	1095.7	0.2747
16	0.000		0.2768	4.977	1026.4	0.2768	9.599	1082.0	0.2600
17	0.000		0.2629	4.827	1007.8	0.2629	9.308	1060.4	0.2469
18	0.000		0.2507	4.616	982.3	0.2507	8.895	1030.3	0.2354
19	0.000		0.2401	4.327	948.5	0.2401	8.329	990.4	0.2254
20	0.000		0.2312	3.806	890.6	0.2312	7.338	926.6	0.2169
21	0.000		0.2239	3.279	835.9	0.2239	6.297	861.7	0.2101
22	0.000		0.2181	2.695	779.3	0.2181	5.131	794.0	0.2048
23	0.000		0.2143	1.157	647.9	0.2143	2.232	655.9	0.2011
24	0.000		0.2126	0.696	612.7	0.2126	1.327	615.9	0.1997

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.831	618.4	0.7396	2.366	622.8	0.7396	3.075	637.7	0.7396
2	6.587	798.4	0.7396	8.546	821.0	0.7396	11.085	882.9	0.7396
3	9.192	861.9	0.7277	11.859	878.0	0.7307	15.258	949.6	0.7314
4	10.541	925.6	0.6833	13.610	938.9	0.6902	17.516	1027.2	0.6916
5	10.944	964.3	0.6246	14.233	974.2	0.6360	18.410	1071.4	0.6382
6	10.909	989.3	0.5637	14.327	995.5	0.5785	18.626	1092.0	0.5807
7	10.748	1006.4	0.5084	14.253	1010.2	0.5247	18.590	1098.4	0.5263
8	10.604	1022.0	0.4615	14.179	1022.2	0.4776	18.522	1099.5	0.4785
9	10.801	1046.8	0.4218	14.516	1046.6	0.4369	18.944	1114.1	0.4373
10	10.686	1048.6	0.3876	14.407	1047.6	0.4015	18.774	1103.6	0.4016
11	10.566	1041.5	0.3585	14.248	1040.8	0.3713	18.520	1087.4	0.3713
12	10.449	1029.0	0.3335	14.064	1029.1	0.3452	18.217	1067.4	0.3452
13	10.343	1013.3	0.3118	13.876	1015.0	0.3226	17.897	1045.7	0.3227
14	10.240	994.4	0.2929	13.682	999.6	0.3029	17.562	1023.0	0.3031
15	10.111	977.5	0.2761	13.456	983.4	0.2856	17.184	999.2	0.2860
16	9.913	959.3	0.2613	13.151	965.9	0.2704	16.712	973.7	0.2711
17	9.609	938.3	0.2482	12.720	945.6	0.2569	16.090	945.3	0.2578
18	9.179	911.5	0.2367	12.122	919.4	0.2452	15.261	912.2	0.2462
19	8.589	875.1	0.2267	11.302	884.8	0.2349	14.157	873.2	0.2362
20	7.562	823.4	0.2181	9.909	832.5	0.2261	12.360	820.7	0.2277
21	6.482	770.9	0.2112	8.431	779.3	0.2190	10.472	770.8	0.2207
22	5.274	718.2	0.2059	6.787	725.0	0.2133	8.376	719.4	0.2152
23	2.296	628.2	0.2022	2.957	629.1	0.2098	3.644	626.3	0.2117
24	1.363	598.7	0.2008	1.731	598.8	0.2079	2.116	597.5	0.2099

Table 4-82. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H6

	Assembly Number H6								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.841	654.5	0.7396	4.316	654.2	0.7396	4.743	614.7	0.7396
2	13.721	944.6	0.7396	15.284	923.0	0.7396	16.695	759.5	0.7396
3	18.707	1015.4	0.7305	20.685	970.0	0.7306	22.550	792.4	0.7323
4	21.351	1085.4	0.6899	23.473	1009.5	0.6903	25.647	838.4	0.6943
5	22.350	1105.3	0.6357	24.490	1014.5	0.6367	26.914	877.6	0.6436
6	22.538	1100.0	0.5778	24.665	1010.9	0.5794	27.298	911.9	0.5890
7	22.436	1087.5	0.5234	24.558	1009.5	0.5254	27.367	941.9	0.5370
8	22.315	1077.5	0.4759	24.454	1014.2	0.4781	27.411	967.9	0.4905
9	22.783	1086.2	0.4351	24.998	1035.9	0.4373	28.127	999.1	0.4495
10	22.573	1078.7	0.3998	24.821	1045.4	0.4021	27.998	1008.0	0.4135
11	22.278	1071.0	0.3697	24.559	1055.0	0.3720	27.735	1007.8	0.3825
12	21.932	1063.1	0.3438	24.249	1065.7	0.3460	27.394	1002.1	0.3558
13	21.566	1054.7	0.3215	23.916	1075.5	0.3236	27.014	993.4	0.3326
14	21.174	1044.3	0.3021	23.552	1083.9	0.3040	26.593	983.0	0.3123
15	20.720	1030.7	0.2851	23.117	1089.7	0.2867	26.092	971.1	0.2946
16	20.146	1012.7	0.2702	22.546	1090.6	0.2716	25.444	957.4	0.2790
17	19.387	989.1	0.2570	21.762	1083.0	0.2582	24.565	940.8	0.2653
18	18.375	958.5	0.2455	20.682	1062.7	0.2465	23.358	919.1	0.2533
19	17.031	919.8	0.2355	19.215	1027.0	0.2363	21.714	889.8	0.2428
20	14.867	863.9	0.2271	16.817	962.5	0.2276	19.025	843.6	0.2340
21	12.594	809.1	0.2202	14.275	893.7	0.2205	16.155	794.6	0.2268
22	10.058	750.8	0.2146	11.410	816.5	0.2150	12.881	737.6	0.2209
23	4.382	639.3	0.2112	4.986	665.4	0.2114	5.619	632.8	0.2173
24	2.532	604.8	0.2095	2.873	618.8	0.2097	3.212	599.3	0.2151

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.511	640.0	0.7396
2	19.101	844.2	0.7396
3	25.585	876.3	0.7331
4	29.006	918.8	0.6965
5	30.459	944.1	0.6474
6	30.952	959.3	0.5942
7	31.084	968.2	0.5429
8	31.172	974.5	0.4967
9	31.996	990.1	0.4556
10	31.864	989.7	0.4194
11	31.566	984.6	0.3883
12	31.168	976.4	0.3613
13	30.718	966.4	0.3379
14	30.217	955.1	0.3175
15	29.629	943.0	0.2995
16	28.885	929.9	0.2838
17	27.891	914.4	0.2699
18	26.534	894.6	0.2578
19	24.685	868.2	0.2473
20	21.664	827.3	0.2384
21	18.417	783.2	0.2312
22	14.664	730.7	0.2252
23	6.405	632.0	0.2216
24	3.640	599.5	0.2192

Table 4-83. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H7

	Assembly Number H7								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.903	637.6	0.7396	1.726	643.1	0.7396
2	0.000		0.7396	3.193	877.3	0.7396	6.208	918.4	0.7396
3	0.000		0.7328	4.378	954.4	0.7328	8.680	1033.6	0.7297
4	0.000		0.6958	5.033	1033.4	0.6958	9.990	1135.1	0.6876
5	0.000		0.6448	5.283	1065.4	0.6448	10.420	1164.8	0.6312
6	0.000	Data Not	0.5882	5.324	1070.7	0.5882	10.423	1158.4	0.5709
7	0.000	Required	0.5335	5.289	1066.2	0.5335	10.289	1142.1	0.5149
8	0.000		0.4855	5.252	1061.4	0.4855	10.150	1125.6	0.4672
9	0.000		0.4442	5.393	1079.8	0.4442	10.322	1130.6	0.4269
10	0.000		0.4085	5.342	1073.1	0.4085	10.188	1117.2	0.3923
11	0.000		0.3781	5.274	1064.2	0.3781	10.043	1105.0	0.3630
12	0.000		0.3521	5.196	1054.1	0.3521	9.895	1093.9	0.3379
13	0.000		0.3296	5.112	1043.4	0.3296	9.750	1084.4	0.3162
14	0.000		0.3100	5.020	1031.8	0.3100	9.609	1076.9	0.2973
15	0.000		0.2929	4.908	1017.8	0.2929	9.438	1067.8	0.2807
16	0.000		0.2778	4.765	1000.2	0.2778	9.200	1053.4	0.2661
17	0.000		0.2646	4.580	978.0	0.2646	8.860	1030.4	0.2532
18	0.000		0.2530	4.348	950.9	0.2530	8.412	999.2	0.2419
19	0.000		0.2429	4.056	917.9	0.2429	7.836	959.7	0.2320
20	0.000		0.2344	3.554	864.0	0.2344	6.874	899.2	0.2237
21	0.000		0.2274	3.058	814.0	0.2274	5.888	839.2	0.2171
22	0.000		0.2218	2.513	762.5	0.2218	4.797	777.3	0.2118
23	0.000		0.2182	1.075	641.5	0.2182	2.080	649.4	0.2081
24	0.000		0.2166	0.646	609.0	0.2166	1.234	612.1	0.2068

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.752	590.0	0.7396	2.041	592.9	0.7396	2.415	599.6	0.7396
2	6.310	687.8	0.7396	7.408	695.8	0.7396	8.819	723.9	0.7396
3	8.826	721.8	0.7300	10.354	726.8	0.7339	12.273	756.6	0.7371
4	10.162	754.2	0.6887	11.943	757.9	0.6981	14.176	793.8	0.7056
5	10.610	777.4	0.6332	12.561	779.5	0.6500	15.003	819.6	0.6630
6	10.627	796.0	0.5737	12.712	797.1	0.5982	15.302	838.4	0.6166
7	10.505	812.3	0.5187	12.705	812.4	0.5498	15.396	851.5	0.5718
8	10.376	826.2	0.4716	12.677	826.1	0.5072	15.438	860.7	0.5313
9	10.561	844.5	0.4316	12.990	843.9	0.4695	15.849	873.8	0.4939
10	10.430	848.8	0.3971	12.892	848.5	0.4354	15.746	873.1	0.4594
11	10.284	847.4	0.3677	12.737	847.3	0.4051	15.551	867.7	0.4282
12	10.131	840.3	0.3424	12.551	842.6	0.3784	15.303	859.5	0.4005
13	9.981	833.2	0.3205	12.356	836.4	0.3549	15.034	849.8	0.3761
14	9.833	823.4	0.3014	12.167	830.7	0.3344	14.761	838.9	0.3547
15	9.658	817.8	0.2846	11.991	830.6	0.3168	14.495	827.4	0.3360
16	9.418	815.1	0.2699	11.877	848.1	0.3024	14.296	816.7	0.3206
17	9.100	846.0	0.2574	11.646	860.5	0.2896	14.029	812.2	0.3071
18	8.737	977.5	0.2474	11.570	902.6	0.2811	13.812	794.9	0.2966
19	8.169	991.0	0.2377	11.192	931.8	0.2722	13.229	770.4	0.2861
20	7.165	922.5	0.2289	9.950	895.4	0.2621	11.711	738.5	0.2755
21	6.127	844.5	0.2216	8.537	841.2	0.2533	10.015	707.2	0.2664
22	4.977	764.4	0.2158	6.853	769.9	0.2452	8.009	673.2	0.2581
23	2.154	639.0	0.2119	2.926	640.9	0.2396	3.394	605.3	0.2522
24	1.273	601.8	0.2101	1.681	602.9	0.2353	1.930	584.8	0.2473

Table 4-83. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H7

	Assembly Number H7								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	2.945	623.8	0.7396	3.421	654.5	0.7396	4.118	652.0	0.7396
2	10.713	818.3	0.7396	12.308	932.2	0.7396	14.663	924.7	0.7396
3	14.731	856.7	0.7375	16.706	969.2	0.7368	19.719	977.9	0.7362
4	16.887	894.5	0.7070	18.972	999.1	0.7056	22.262	1029.3	0.7041
5	17.807	908.9	0.6656	19.897	1000.5	0.6637	23.278	1046.8	0.6611
6	18.132	912.9	0.6201	20.210	997.2	0.6179	23.596	1047.8	0.6141
7	18.231	913.7	0.5760	20.308	996.9	0.5733	23.674	1043.9	0.5685
8	18.282	915.1	0.5356	20.382	1003.3	0.5324	23.735	1041.4	0.5269
9	18.771	927.4	0.4980	20.961	1028.7	0.4946	24.378	1053.8	0.4887
10	18.675	928.5	0.4633	20.908	1041.1	0.4597	24.297	1048.4	0.4539
11	18.479	928.4	0.4319	20.755	1053.6	0.4282	24.102	1040.2	0.4227
12	18.222	926.9	0.4040	20.540	1066.0	0.4002	23.839	1031.0	0.3949
13	17.937	924.4	0.3793	20.294	1077.6	0.3754	23.543	1021.5	0.3706
14	17.634	919.7	0.3576	20.023	1087.3	0.3535	23.222	1012.1	0.3490
15	17.320	912.1	0.3388	19.728	1093.0	0.3344	22.872	1001.9	0.3301
16	17.048	900.8	0.3229	19.451	1091.5	0.3183	22.524	988.8	0.3142
17	16.696	887.8	0.3092	19.066	1081.5	0.3043	22.041	971.1	0.3002
18	16.406	876.8	0.2984	18.692	1056.5	0.2932	21.516	944.5	0.2892
19	15.727	862.6	0.2879	17.883	1019.0	0.2827	20.505	910.1	0.2788
20	14.006	833.2	0.2777	15.940	958.2	0.2724	18.247	859.0	0.2687
21	12.052	797.5	0.2689	13.735	894.2	0.2635	15.694	806.1	0.2602
22	9.658	746.6	0.2609	11.017	818.1	0.2557	12.547	745.5	0.2526
23	4.091	634.8	0.2548	4.686	663.7	0.2497	5.343	635.6	0.2469
24	2.308	600.8	0.2501	2.641	617.5	0.2454	2.993	600.7	0.2431

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.904	642.0	0.7396
2	17.173	858.8	0.7396
3	22.850	888.7	0.7364
4	25.652	923.0	0.7050
5	26.779	938.1	0.6628
6	27.151	945.5	0.6165
7	27.259	949.7	0.5710
8	27.346	953.3	0.5292
9	28.083	966.5	0.4907
10	27.990	964.8	0.4556
11	27.761	960.0	0.4243
12	27.452	953.6	0.3966
13	27.104	946.4	0.3722
14	26.727	938.6	0.3506
15	26.318	930.5	0.3317
16	25.899	920.9	0.3156
17	25.329	909.3	0.3016
18	24.678	892.7	0.2902
19	23.504	871.8	0.2796
20	20.974	837.9	0.2697
21	18.095	799.2	0.2611
22	14.482	746.9	0.2537
23	6.198	638.4	0.2483
24	3.454	602.4	0.2446

Table 4-84. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H8

	Assembly Number H8								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.831	631.0	0.7396	1.596	636.9	0.7396
2	0.000		0.7396	2.938	847.3	0.7396	5.711	883.7	0.7396
3	0.000		0.7367	4.012	913.0	0.7367	7.951	981.6	0.7343
4	0.000		0.7059	4.599	980.3	0.7059	9.145	1070.3	0.6990
5	0.000		0.6623	4.822	1007.2	0.6623	9.535	1096.1	0.6504
6	0.000	Data Not	0.6121	4.864	1012.4	0.6121	9.539	1090.2	0.5963
7	0.000	Required	0.5616	4.840	1009.4	0.5616	9.413	1074.4	0.5438
8	0.000		0.5150	4.816	1006.5	0.5150	9.291	1059.5	0.4971
9	0.000		0.4736	4.961	1024.4	0.4736	9.466	1064.0	0.4565
10	0.000		0.4372	4.922	1019.5	0.4372	9.347	1051.9	0.4213
11	0.000		0.4061	4.862	1012.1	0.4061	9.209	1040.3	0.3912
12	0.000		0.3791	4.789	1003.2	0.3791	9.062	1029.4	0.3652
13	0.000		0.3555	4.708	993.3	0.3555	8.913	1019.5	0.3426
14	0.000		0.3350	4.620	982.8	0.3350	8.756	1009.5	0.3229
15	0.000		0.3170	4.515	970.3	0.3170	8.574	998.5	0.3056
16	0.000		0.3012	4.385	955.2	0.3012	8.341	984.0	0.2903
17	0.000		0.2873	4.220	936.3	0.2873	8.034	964.3	0.2768
18	0.000		0.2751	4.009	912.7	0.2751	7.632	938.6	0.2650
19	0.000		0.2645	3.735	883.0	0.2645	7.106	905.7	0.2547
20	0.000		0.2555	3.262	834.2	0.2555	6.217	854.1	0.2460
21	0.000		0.2481	2.792	788.4	0.2481	5.303	802.4	0.2389
22	0.000		0.2423	2.268	740.4	0.2423	4.277	747.8	0.2334
23	0.000		0.2386	0.949	631.8	0.2386	1.814	636.7	0.2297
24	0.000		0.2370	0.559	602.5	0.2370	1.055	604.1	0.2283

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.656	632.3	0.7396	2.271	632.8	0.7396	2.788	615.7	0.7396
2	5.937	876.0	0.7396	8.220	873.0	0.7396	10.072	782.8	0.7396
3	8.274	974.2	0.7343	11.317	934.9	0.7349	13.686	810.5	0.7371
4	9.513	1052.2	0.6990	12.834	979.5	0.7002	15.426	838.7	0.7054
5	9.913	1070.5	0.6502	13.277	986.5	0.6527	15.986	853.9	0.6618
6	9.914	1065.0	0.5961	13.248	981.6	0.6000	16.051	866.3	0.6132
7	9.779	1048.6	0.5436	13.074	975.2	0.5487	15.968	878.5	0.5652
8	9.649	1034.3	0.4968	12.914	970.3	0.5027	15.894	890.2	0.5213
9	9.824	1034.3	0.4563	13.148	979.9	0.4625	16.272	910.1	0.4816
10	9.695	1016.7	0.4212	12.982	973.9	0.4275	16.135	914.2	0.4464
11	9.547	999.5	0.3912	12.781	965.3	0.3975	15.931	913.8	0.4158
12	9.388	979.2	0.3651	12.559	955.1	0.3715	15.684	910.3	0.3890
13	9.227	959.3	0.3426	12.327	943.8	0.3489	15.416	905.2	0.3656
14	9.058	939.9	0.3230	12.080	931.6	0.3291	15.125	899.1	0.3450
15	8.863	919.3	0.3057	11.800	918.5	0.3118	14.795	892.2	0.3270
16	8.616	897.7	0.2905	11.456	903.7	0.2965	14.391	884.0	0.3111
17	8.294	875.1	0.2770	11.016	886.1	0.2830	13.874	873.6	0.2971
18	7.874	848.8	0.2653	10.450	864.8	0.2711	13.202	859.5	0.2847
19	7.327	819.2	0.2550	9.716	838.3	0.2609	12.316	839.7	0.2740
20	6.408	778.7	0.2463	8.495	797.3	0.2522	10.819	804.9	0.2649
21	5.462	737.8	0.2393	7.210	753.8	0.2450	9.207	765.7	0.2575
22	4.401	695.5	0.2337	5.759	706.6	0.2393	7.327	717.0	0.2513
23	1.866	615.4	0.2301	2.440	620.0	0.2357	3.090	622.7	0.2474
24	1.084	591.4	0.2287	1.398	593.3	0.2340	1.745	593.9	0.2449

Table 4-84. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H8

	Assembly Number H8								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.154	603.2	0.7396	3.338	594.6	0.7396	3.857	627.2	0.7396
2	11.339	723.4	0.7396	11.960	685.9	0.7396	13.754	823.1	0.7396
3	15.276	739.1	0.7388	16.044	719.0	0.7396	18.386	922.3	0.7396
4	17.160	757.4	0.7097	17.989	707.7	0.7118	20.618	911.2	0.7128
5	17.811	769.2	0.6695	18.684	716.3	0.6733	21.470	937.9	0.6749
6	17.968	781.4	0.6245	18.893	726.5	0.6305	21.777	955.0	0.6322
7	17.983	794.5	0.5799	18.973	739.5	0.5880	21.929	967.7	0.5895
8	18.016	809.1	0.5386	19.085	755.7	0.5487	22.101	978.5	0.5493
9	18.556	831.7	0.5008	19.741	780.0	0.5125	22.876	1000.2	0.5122
10	18.502	843.5	0.4665	19.769	797.7	0.4794	22.923	1003.7	0.4783
11	18.355	851.8	0.4359	19.693	813.4	0.4495	22.837	1001.9	0.4478
12	18.146	857.3	0.4087	19.544	826.9	0.4226	22.661	996.9	0.4206
13	17.902	860.8	0.3848	19.350	838.3	0.3985	22.429	989.9	0.3962
14	17.626	863.0	0.3635	19.119	848.7	0.3770	22.148	980.8	0.3746
15	17.304	864.2	0.3447	18.834	857.3	0.3578	21.802	969.9	0.3554
16	16.901	864.3	0.3282	18.461	864.4	0.3409	21.353	956.4	0.3384
17	16.371	862.4	0.3136	17.951	869.2	0.3258	20.743	938.9	0.3233
18	15.658	856.4	0.3007	17.238	869.2	0.3125	19.893	915.6	0.3100
19	14.688	844.2	0.2894	16.238	862.1	0.3009	18.702	884.1	0.2984
20	12.990	815.8	0.2800	14.433	837.1	0.2912	16.589	835.7	0.2887
21	11.133	782.5	0.2723	12.436	805.6	0.2832	14.256	786.0	0.2808
22	8.883	734.9	0.2656	9.955	756.3	0.2763	11.371	730.2	0.2740
23	3.736	629.3	0.2611	4.184	637.4	0.2714	4.775	627.9	0.2692
24	2.085	596.8	0.2578	2.319	600.6	0.2676	2.635	596.7	0.2657

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.709	649.4	0.7396
2	16.524	896.5	0.7396
3	21.854	1005.3	0.7391
4	24.373	973.7	0.7108
5	25.333	989.2	0.6721
6	25.679	994.9	0.6285
7	25.843	996.7	0.5849
8	26.023	997.8	0.5440
9	26.891	1011.6	0.5064
10	26.926	1009.8	0.4722
11	26.806	1004.8	0.4417
12	26.580	997.4	0.4146
13	26.287	988.5	0.3904
14	25.937	978.5	0.3689
15	25.515	967.7	0.3499
16	24.980	955.5	0.3330
17	24.262	940.5	0.3181
18	23.269	921.1	0.3050
19	21.875	894.2	0.2934
20	19.412	849.7	0.2838
21	16.680	801.8	0.2758
22	13.288	745.0	0.2692
23	5.605	636.1	0.2645
24	3.088	601.7	0.2613

Table 4-85. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H9

	Assembly Number H9								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.878	635.3	0.7396	1.677	640.5	0.7396
2	0.000		0.7396	3.053	860.7	0.7396	5.926	897.9	0.7396
3	0.000		0.7352	4.106	923.5	0.7352	8.152	996.6	0.7324
4	0.000		0.7028	4.637	984.8	0.7028	9.276	1084.6	0.6950
5	0.000		0.6580	4.796	1004.0	0.6580	9.592	1109.2	0.6444
6	0.000	Data Not	0.6076	4.791	1003.4	0.6076	9.538	1101.5	0.5894
7	0.000	Required	0.5578	4.745	997.8	0.5578	9.388	1085.2	0.5368
8	0.000		0.5121	4.724	995.3	0.5121	9.276	1071.2	0.4906
9	0.000		0.4714	4.893	1015.9	0.4714	9.493	1078.6	0.4506
10	0.000		0.4354	4.900	1016.8	0.4354	9.448	1070.6	0.4157
11	0.000		0.4042	4.902	1017.0	0.4042	9.411	1064.6	0.3856
12	0.000		0.3768	4.905	1017.4	0.3768	9.387	1060.5	0.3593
13	0.000		0.3526	4.916	1018.8	0.3526	9.383	1058.3	0.3363
14	0.000		0.3312	4.932	1020.8	0.3312	9.396	1057.8	0.3160
15	0.000		0.3122	4.936	1021.3	0.3122	9.403	1058.3	0.2978
16	0.000		0.2951	4.905	1017.4	0.2951	9.361	1056.6	0.2815
17	0.000		0.2799	4.817	1006.6	0.2799	9.215	1047.9	0.2669
18	0.000		0.2664	4.655	987.0	0.2664	8.921	1028.4	0.2540
19	0.000		0.2546	4.401	957.0	0.2546	8.442	995.9	0.2427
20	0.000		0.2446	3.899	900.7	0.2446	7.506	936.4	0.2330
21	0.000		0.2364	3.387	846.8	0.2364	6.506	874.1	0.2251
22	0.000		0.2299	2.807	789.8	0.2299	5.354	806.5	0.2189
23	0.000		0.2256	1.213	652.3	0.2256	2.346	661.3	0.2147
24	0.000		0.2237	0.730	615.2	0.2237	1.395	618.9	0.2131

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.719	609.6	0.7396	2.296	628.0	0.7396	2.816	616.0	0.7396
2	6.090	777.0	0.7396	8.247	852.5	0.7396	10.126	786.5	0.7396
3	8.402	860.4	0.7327	11.314	914.6	0.7343	13.739	817.5	0.7366
4	9.584	949.6	0.6958	12.812	964.3	0.6990	15.481	848.6	0.7044
5	9.933	1004.6	0.6457	13.238	976.8	0.6512	16.028	864.5	0.6604
6	9.891	1025.5	0.5908	13.181	974.4	0.5984	16.056	875.9	0.6115
7	9.742	1027.3	0.5384	12.994	968.2	0.5473	15.938	885.2	0.5635
8	9.627	1022.0	0.4921	12.845	962.7	0.5015	15.845	892.9	0.5195
9	9.849	1030.8	0.4519	13.115	970.5	0.4613	16.228	908.6	0.4798
10	9.798	1020.2	0.4169	13.018	963.0	0.4262	16.133	908.9	0.4444
11	9.752	1004.6	0.3867	12.910	953.0	0.3959	16.003	905.8	0.4135
12	9.717	985.9	0.3604	12.803	941.6	0.3695	15.859	900.6	0.3864
13	9.701	965.9	0.3373	12.706	929.0	0.3463	15.718	894.6	0.3625
14	9.700	943.1	0.3169	12.616	915.2	0.3258	15.579	887.8	0.3414
15	9.693	920.9	0.2987	12.510	900.2	0.3076	15.420	880.6	0.3226
16	9.634	894.7	0.2824	12.339	883.6	0.2912	15.186	872.1	0.3058
17	9.470	867.7	0.2678	12.041	864.1	0.2767	14.808	861.5	0.2909
18	9.156	838.8	0.2549	11.571	841.9	0.2638	14.228	847.1	0.2777
19	8.656	809.6	0.2436	10.884	816.2	0.2525	13.387	827.3	0.2661
20	7.690	769.6	0.2339	9.635	778.8	0.2429	11.870	794.0	0.2564
21	6.658	729.1	0.2260	8.290	739.4	0.2350	10.219	757.7	0.2483
22	5.472	688.5	0.2198	6.739	696.0	0.2285	8.264	712.3	0.2414
23	2.396	613.3	0.2156	2.930	615.9	0.2242	3.567	621.5	0.2367
24	1.423	590.4	0.2138	1.713	590.9	0.2219	2.053	593.3	0.2335

Table 4-85. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H9

	Assembly Number H9								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.197	605.1	0.7396	3.385	595.4	0.7396	3.689	598.3	0.7396
2	11.452	731.9	0.7396	12.089	689.4	0.7396	13.174	708.7	0.7396
3	15.418	750.4	0.7383	16.210	700.6	0.7392	17.768	783.4	0.7396
4	17.321	771.2	0.7086	18.180	713.5	0.7108	20.352	838.1	0.7136
5	17.962	783.6	0.6678	18.868	722.8	0.6718	21.398	894.8	0.6766
6	18.076	795.1	0.6225	19.034	733.1	0.6287	21.787	932.2	0.6348
7	18.043	806.7	0.5777	19.065	746.0	0.5860	22.087	979.6	0.5931
8	18.039	819.0	0.5361	19.136	761.5	0.5463	22.307	1006.9	0.5527
9	18.564	839.1	0.4980	19.770	784.5	0.5098	23.091	1035.2	0.5145
10	18.531	848.0	0.4634	19.808	799.9	0.4762	23.180	1045.1	0.4795
11	18.441	853.8	0.4325	19.776	812.7	0.4459	23.128	1041.2	0.4478
12	18.320	857.1	0.4051	19.703	823.5	0.4186	22.999	1030.5	0.4193
13	18.192	859.0	0.3806	19.614	832.3	0.3940	22.842	1017.6	0.3940
14	18.056	859.5	0.3588	19.512	840.1	0.3718	22.665	1003.6	0.3714
15	17.890	858.5	0.3393	19.375	846.8	0.3519	22.447	988.7	0.3513
16	17.638	855.8	0.3219	19.146	852.2	0.3341	22.128	972.4	0.3333
17	17.225	850.7	0.3064	18.745	855.0	0.3182	21.621	953.6	0.3174
18	16.583	841.8	0.2927	18.096	853.4	0.3043	20.846	931.7	0.3035
19	15.641	827.4	0.2807	17.116	844.5	0.2920	19.732	909.1	0.2917
20	13.917	798.8	0.2706	15.282	819.4	0.2817	17.603	861.2	0.2815
21	12.025	766.8	0.2623	13.251	788.8	0.2732	15.227	808.6	0.2730
22	9.726	723.2	0.2551	10.732	742.8	0.2657	12.280	748.0	0.2655
23	4.180	625.7	0.2500	4.606	633.6	0.2602	5.263	635.6	0.2601
24	2.376	595.1	0.2459	2.598	598.6	0.2555	2.950	600.7	0.2556

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.255	617.9	0.7396
2	15.078	776.4	0.7396
3	20.226	851.5	0.7396
4	23.081	838.2	0.7153
5	24.276	856.5	0.6796
6	24.751	867.3	0.6389
7	25.090	872.3	0.5979
8	25.346	876.9	0.5581
9	26.225	889.1	0.5201
10	26.312	888.8	0.4851
11	26.230	884.9	0.4533
12	26.053	878.8	0.4248
13	25.838	871.4	0.3992
14	25.596	863.2	0.3765
15	25.307	854.3	0.3563
16	24.908	844.4	0.3382
17	24.305	832.7	0.3222
18	23.406	817.8	0.3083
19	22.121	797.8	0.2963
20	19.720	766.9	0.2860
21	17.039	733.7	0.2775
22	13.699	693.1	0.2699
23	5.861	614.7	0.2643
24	3.270	589.9	0.2597

Table 4-86. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H10

	Assembly Number H10								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.890	636.4	0.7396	1.791	651.5	0.7396
2	0.000		0.7396	3.099	866.2	0.7396	6.366	955.9	0.7396
3	0.000		0.7340	4.220	936.3	0.7340	8.844	1082.3	0.7276
4	0.000		0.6988	4.838	1009.2	0.6988	10.116	1188.5	0.6832
5	0.000		0.6502	5.070	1038.1	0.6502	10.471	1209.7	0.6249
6	0.000	Data Not	0.5961	5.109	1043.0	0.5961	10.405	1191.6	0.5646
7	0.000	Required	0.5434	5.082	1039.6	0.5434	10.225	1165.8	0.5100
8	0.000		0.4962	5.063	1037.2	0.4962	10.069	1143.1	0.4637
9	0.000		0.4549	5.229	1058.4	0.4549	10.251	1145.7	0.4245
10	0.000		0.4189	5.215	1056.6	0.4189	10.147	1131.0	0.3905
11	0.000		0.3878	5.187	1053.0	0.3878	10.043	1118.8	0.3616
12	0.000		0.3611	5.148	1048.0	0.3611	9.937	1108.1	0.3367
13	0.000		0.3376	5.098	1041.6	0.3376	9.824	1098.2	0.3150
14	0.000		0.3173	5.034	1033.5	0.3173	9.697	1088.3	0.2960
15	0.000		0.2994	4.949	1022.9	0.2994	9.540	1077.2	0.2794
16	0.000		0.2836	4.830	1008.2	0.2836	9.325	1062.5	0.2646
17	0.000		0.2697	4.668	988.5	0.2697	9.025	1041.8	0.2516
18	0.000		0.2574	4.457	963.5	0.2574	8.620	1013.4	0.2401
19	0.000		0.2468	4.183	932.1	0.2468	8.082	976.0	0.2301
20	0.000		0.2377	3.691	878.3	0.2377	7.141	915.9	0.2216
21	0.000		0.2303	3.205	828.5	0.2303	6.172	855.5	0.2147
22	0.000		0.2243	2.674	777.3	0.2243	5.100	792.9	0.2093
23	0.000		0.2204	1.172	649.1	0.2204	2.262	657.3	0.2055
24	0.000		0.2186	0.714	614.0	0.2186	1.362	617.4	0.2041

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.841	619.6	0.7396	2.423	628.7	0.7396	3.125	636.9	0.7396
2	6.552	810.9	0.7396	8.683	848.3	0.7396	11.183	876.9	0.7396
3	9.105	876.6	0.7280	11.970	907.5	0.7305	15.280	936.6	0.7314
4	10.419	941.5	0.6841	13.667	967.5	0.6896	17.442	1006.5	0.6919
5	10.798	980.9	0.6264	14.240	999.6	0.6354	18.277	1048.3	0.6389
6	10.747	1006.4	0.5665	14.296	1017.7	0.5779	18.471	1071.1	0.5818
7	10.578	1025.5	0.5122	14.195	1029.4	0.5243	18.433	1081.6	0.5278
8	10.431	1041.5	0.4658	14.104	1039.2	0.4774	18.369	1086.2	0.4802
9	10.630	1072.3	0.4264	14.434	1062.4	0.4370	18.799	1103.3	0.4390
10	10.528	1076.0	0.3923	14.329	1061.9	0.4018	18.648	1095.4	0.4034
11	10.422	1072.3	0.3631	14.180	1054.2	0.3717	18.418	1081.6	0.3730
12	10.308	1057.7	0.3380	13.996	1041.8	0.3458	18.131	1064.4	0.3469
13	10.185	1039.7	0.3162	13.788	1027.0	0.3233	17.808	1045.5	0.3244
14	10.047	1020.2	0.2971	13.552	1010.2	0.3038	17.452	1026.2	0.3048
15	9.877	997.8	0.2803	13.274	992.0	0.2867	17.044	1005.7	0.2877
16	9.647	972.5	0.2656	12.920	971.6	0.2716	16.544	983.2	0.2728
17	9.330	944.7	0.2525	12.452	947.3	0.2583	15.901	956.9	0.2596
18	8.903	910.0	0.2410	11.832	917.2	0.2467	15.062	925.1	0.2480
19	8.338	869.2	0.2310	11.014	879.3	0.2365	13.966	886.3	0.2380
20	7.359	815.1	0.2224	9.657	825.7	0.2279	12.203	832.8	0.2295
21	6.352	764.4	0.2155	8.249	772.6	0.2209	10.374	780.8	0.2226
22	5.240	714.5	0.2101	6.703	719.0	0.2152	8.354	726.2	0.2170
23	2.323	624.9	0.2063	2.954	626.0	0.2114	3.661	628.2	0.2133
24	1.396	596.6	0.2048	1.746	597.0	0.2096	2.138	598.2	0.2115

Table 4-86. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H10

	Assembly Number H10								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.826	645.9	0.7396	4.260	645.6	0.7396	4.861	638.5	0.7396
2	13.588	903.5	0.7396	15.019	885.9	0.7396	16.979	852.0	0.7396
3	18.420	962.8	0.7313	20.233	926.8	0.7317	22.738	890.7	0.7326
4	20.958	1027.2	0.6919	22.920	965.7	0.6928	25.702	937.2	0.6950
5	21.940	1053.6	0.6391	23.941	976.2	0.6409	26.877	964.2	0.6445
6	22.162	1058.7	0.5822	24.171	978.3	0.5849	27.203	981.4	0.5898
7	22.106	1055.4	0.5284	24.126	981.3	0.5316	27.224	993.4	0.5373
8	22.025	1052.3	0.4809	24.072	988.7	0.4845	27.225	1003.6	0.4902
9	22.529	1065.9	0.4399	24.660	1012.0	0.4435	27.921	1023.8	0.4491
10	22.362	1062.9	0.4044	24.532	1023.0	0.4080	27.798	1024.7	0.4133
11	22.112	1059.2	0.3741	24.319	1033.6	0.3775	27.559	1019.8	0.3826
12	21.806	1055.8	0.3480	24.053	1045.1	0.3513	27.252	1012.1	0.3561
13	21.464	1052.3	0.3254	23.751	1056.8	0.3286	26.903	1003.4	0.3331
14	21.076	1046.5	0.3058	23.399	1067.5	0.3087	26.501	994.1	0.3130
15	20.611	1036.3	0.2886	22.962	1075.8	0.2912	26.013	984.8	0.2954
16	20.020	1020.1	0.2735	22.384	1079.7	0.2758	25.373	973.6	0.2798
17	19.248	997.7	0.2601	21.596	1074.9	0.2623	24.501	958.7	0.2661
18	18.230	967.4	0.2485	20.516	1056.5	0.2503	23.296	936.9	0.2541
19	16.894	928.4	0.2384	19.061	1022.1	0.2400	21.658	905.9	0.2436
20	14.760	871.3	0.2298	16.699	959.6	0.2312	18.990	856.5	0.2347
21	12.540	815.1	0.2228	14.216	892.4	0.2240	16.161	804.1	0.2274
22	10.067	754.7	0.2173	11.413	815.2	0.2183	12.932	744.0	0.2216
23	4.404	639.8	0.2136	5.001	664.1	0.2146	5.658	635.6	0.2178
24	2.554	604.8	0.2119	2.889	617.8	0.2127	3.244	601.1	0.2158

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.701	648.0	0.7396
2	19.591	873.4	0.7396
3	26.004	906.4	0.7331
4	29.268	947.0	0.6964
5	30.583	966.7	0.6472
6	30.971	975.5	0.5936
7	31.019	979.4	0.5416
8	31.037	981.8	0.4949
9	31.818	994.2	0.4537
10	31.675	991.3	0.4178
11	31.388	984.3	0.3870
12	31.022	975.8	0.3604
13	30.607	966.4	0.3373
14	30.139	957.1	0.3171
15	29.582	947.5	0.2994
16	28.869	937.4	0.2837
17	27.908	925.3	0.2700
18	26.581	908.9	0.2579
19	24.768	886.0	0.2474
20	21.786	846.4	0.2384
21	18.581	801.4	0.2311
22	14.854	745.5	0.2252
23	6.511	638.2	0.2214
24	3.710	602.9	0.2193

Table 4-87. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H11

	Assembly Number H11								
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.850	632.8	0.7396	1.656	641.3	0.7396
2	0.000		0.7396	2.983	852.5	0.7396	5.904	904.8	0.7396
3	0.000		0.7362	4.067	919.1	0.7362	8.207	1010.1	0.7327
4	0.000		0.7043	4.655	987.0	0.7043	9.403	1101.6	0.6952
5	0.000		0.6597	4.871	1013.2	0.6597	9.756	1123.5	0.6442
6	0.000	Data Not	0.6089	4.905	1017.4	0.6089	9.720	1112.3	0.5887
7	0.000	Required	0.5581	4.876	1013.8	0.5581	9.562	1091.9	0.5358
8	0.000		0.5114	4.848	1010.4	0.5114	9.418	1074.0	0.4894
9	0.000		0.4702	4.990	1028.0	0.4702	9.576	1076.4	0.4494
10	0.000		0.4340	4.950	1023.0	0.4340	9.445	1062.5	0.4148
11	0.000		0.4030	4.889	1015.4	0.4030	9.299	1049.7	0.3851
12	0.000		0.3762	4.818	1006.7	0.3762	9.147	1037.6	0.3595
13	0.000		0.3528	4.739	997.1	0.3528	8.992	1026.5	0.3373
14	0.000		0.3324	4.651	986.5	0.3324	8.826	1015.1	0.3180
15	0.000		0.3145	4.548	974.2	0.3145	8.636	1002.6	0.3009
16	0.000		0.2988	4.419	959.1	0.2988	8.399	987.3	0.2859
17	0.000		0.2850	4.256	940.4	0.2850	8.092	967.3	0.2727
18	0.000		0.2728	4.048	917.0	0.2728	7.693	941.5	0.2610
19	0.000		0.2621	3.777	887.5	0.2621	7.172	908.8	0.2509
20	0.000		0.2532	3.304	838.4	0.2532	6.287	857.5	0.2422
21	0.000		0.2459	2.839	792.9	0.2459	5.382	806.0	0.2353
22	0.000		0.2400	2.326	745.6	0.2400	4.379	752.5	0.2298
23	0.000		0.2363	0.990	635.0	0.2363	1.888	639.7	0.2261
24	0.000		0.2346	0.589	604.7	0.2346	1.110	606.3	0.2247

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.687	596.1	0.7396	2.343	638.0	0.7396	2.971	628.3	0.7396
2	6.030	721.2	0.7396	8.467	898.7	0.7396	10.710	838.5	0.7396
3	8.422	811.0	0.7331	11.695	971.6	0.7331	14.566	875.4	0.7345
4	9.755	1023.7	0.6964	13.430	1039.5	0.6961	16.565	911.7	0.6996
5	10.170	1138.9	0.6457	13.932	1054.9	0.6455	17.194	929.7	0.6519
6	10.143	1156.7	0.5901	13.868	1048.3	0.5898	17.216	942.1	0.5990
7	9.979	1144.8	0.5367	13.646	1038.1	0.5365	17.060	951.8	0.5477
8	9.825	1125.2	0.4899	13.447	1030.3	0.4897	16.911	959.1	0.5017
9	9.984	1127.2	0.4496	13.658	1039.4	0.4494	17.239	976.7	0.4614
10	9.840	1102.2	0.4148	13.463	1030.5	0.4146	17.042	976.4	0.4262
11	9.682	1079.7	0.3850	13.238	1018.9	0.3850	16.787	971.8	0.3960
12	9.516	1054.0	0.3594	12.992	1005.3	0.3594	16.493	964.7	0.3698
13	9.345	1025.5	0.3372	12.734	990.7	0.3373	16.178	956.2	0.3472
14	9.165	1001.2	0.3178	12.459	975.0	0.3181	15.838	946.6	0.3274
15	8.959	974.2	0.3008	12.148	958.0	0.3012	15.457	936.5	0.3101
16	8.704	944.7	0.2858	11.772	938.8	0.2864	15.000	924.8	0.2948
17	8.378	914.6	0.2726	11.299	916.0	0.2733	14.425	910.4	0.2814
18	7.957	881.1	0.2610	10.702	889.5	0.2619	13.690	891.3	0.2696
19	7.411	844.5	0.2509	9.937	857.6	0.2519	12.738	866.0	0.2593
20	6.491	796.0	0.2423	8.683	811.3	0.2434	11.166	824.8	0.2507
21	5.550	749.1	0.2353	7.373	763.2	0.2366	9.490	779.8	0.2436
22	4.508	701.4	0.2299	5.913	712.1	0.2312	7.566	726.4	0.2379
23	1.943	618.6	0.2262	2.533	621.7	0.2276	3.219	626.2	0.2341
24	1.140	592.5	0.2247	1.465	594.4	0.2261	1.835	596.1	0.2322

Table 4-87. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly H11

	Assembly Number H11								
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.437	615.7	0.7396	3.672	604.8	0.7396	4.000	601.5	0.7396
2	12.309	772.4	0.7396	13.089	721.8	0.7396	14.250	720.3	0.7396
3	16.579	794.2	0.7359	17.546	734.9	0.7370	19.203	763.0	0.7381
4	18.757	818.8	0.7033	19.800	750.3	0.7059	22.083	855.3	0.7089
5	19.489	833.2	0.6586	20.584	761.1	0.6630	23.216	911.7	0.6682
6	19.599	845.8	0.6090	20.751	773.0	0.6155	23.575	944.5	0.6220
7	19.529	858.3	0.5604	20.752	788.2	0.5689	23.772	979.2	0.5763
8	19.470	871.6	0.5163	20.774	805.9	0.5264	23.901	998.7	0.5334
9	19.946	893.9	0.4769	21.371	833.0	0.4882	24.628	1023.0	0.4941
10	19.810	903.3	0.4419	21.312	850.8	0.4539	24.618	1032.4	0.4588
11	19.592	909.0	0.4114	21.157	865.6	0.4235	24.452	1030.3	0.4274
12	19.322	912.8	0.3848	20.940	878.3	0.3968	24.206	1024.7	0.3999
13	19.020	914.8	0.3616	20.685	889.7	0.3732	23.957	1025.9	0.3759
14	18.686	915.7	0.3411	20.390	899.3	0.3524	23.625	1018.9	0.3545
15	18.297	914.5	0.3231	20.037	908.3	0.3340	23.208	1006.9	0.3355
16	17.819	911.2	0.3073	19.585	914.8	0.3177	22.679	992.7	0.3187
17	17.202	904.7	0.2932	18.979	917.6	0.3033	21.972	974.3	0.3039
18	16.392	893.1	0.2809	18.156	914.3	0.2905	21.013	950.2	0.2910
19	15.316	874.4	0.2701	17.029	901.6	0.2793	19.719	921.5	0.2799
20	13.497	838.4	0.2610	15.072	868.0	0.2699	17.450	870.3	0.2704
21	11.530	797.9	0.2536	12.933	828.0	0.2622	14.971	817.8	0.2627
22	9.200	744.7	0.2474	10.342	770.9	0.2557	11.940	754.8	0.2562
23	3.900	633.1	0.2434	4.382	643.4	0.2513	5.054	637.4	0.2517
24	2.198	599.2	0.2409	2.452	604.0	0.2484	2.812	601.6	0.2487

	Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.581	619.5	0.7396
2	16.182	780.1	0.7396
3	21.688	809.0	0.7389
4	24.823	839.5	0.7108
5	26.093	856.4	0.6717
6	26.527	865.8	0.6271
7	26.757	870.0	0.5825
8	26.913	873.4	0.5404
9	27.724	884.2	0.5015
10	27.706	883.1	0.4663
11	27.508	879.0	0.4349
12	27.214	872.9	0.4072
13	26.908	865.7	0.3829
14	26.520	858.7	0.3613
15	26.045	851.4	0.3421
16	25.448	843.1	0.3251
17	24.657	832.8	0.3102
18	23.584	819.1	0.2971
19	22.125	799.7	0.2858
20	19.587	769.1	0.2762
21	16.799	735.4	0.2684
22	13.368	694.0	0.2616
23	5.650	614.6	0.2569
24	3.128	589.5	0.2537

Table 4-88. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J1

	Assembly Number J1								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.054	624.6	0.7396	0.722	639.4	0.7396
2	0.000		0.7396	0.184	807.5	0.7396	2.396	861.0	0.7396
3	0.000		0.7396	0.261	936.3	0.7396	3.316	1008.5	0.7369
4	0.000		0.7134	0.314	958.7	0.7134	3.857	1016.0	0.7027
5	0.000		0.6725	0.341	1004.0	0.6725	4.066	1047.6	0.6546
6	0.000	Data Not	0.6227	0.352	1023.0	0.6227	4.105	1052.5	0.6000
7	0.000	Required	0.5707	0.357	1031.8	0.5707	4.088	1048.6	0.5463
8	0.000		0.5213	0.360	1037.1	0.5213	4.078	1046.3	0.4979
9	0.000		0.4765	0.378	1069.7	0.4765	4.217	1067.9	0.4556
10	0.000		0.4371	0.376	1066.0	0.4371	4.172	1060.2	0.4189
11	0.000		0.4037	0.370	1055.1	0.4037	4.090	1046.7	0.3877
12	0.000		0.3753	0.360	1037.1	0.3753	3.984	1029.9	0.3611
13	0.000		0.3510	0.348	1016.1	0.3510	3.865	1011.6	0.3384
14	0.000		0.3304	0.334	992.0	0.3304	3.738	992.5	0.3189
15	0.000		0.3128	0.320	968.6	0.3128	3.599	972.0	0.3020
16	0.000		0.2975	0.303	940.9	0.2975	3.441	949.3	0.2874
17	0.000		0.2844	0.285	912.6	0.2844	3.255	923.0	0.2746
18	0.000		0.2731	0.263	879.1	0.2731	3.025	891.5	0.2635
19	0.000		0.2635	0.237	841.3	0.2635	2.736	853.4	0.2541
20	0.000		0.2557	0.197	786.4	0.2557	2.290	797.8	0.2463
21	0.000		0.2496	0.160	738.8	0.2496	1.871	748.9	0.2403
22	0.000		0.2448	0.125	696.5	0.2448	1.457	703.4	0.2356
23	0.000		0.2420	0.052	615.3	0.2420	0.620	619.3	0.2327
24	0.000		0.2406	0.032	594.5	0.2406	0.367	595.4	0.2314

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.457	640.7	0.7396	2.102	638.5	0.7396	2.462	630.1	0.7396
2	4.899	876.9	0.7396	7.202	885.5	0.7396	8.501	849.8	0.7396
3	6.935	981.8	0.7348	10.267	994.4	0.7330	12.066	922.7	0.7338
4	8.175	1094.3	0.6969	12.036	1089.5	0.6931	14.030	973.7	0.6952
5	8.657	1141.9	0.6436	12.647	1114.1	0.6384	14.690	986.9	0.6422
6	8.731	1148.2	0.5846	12.690	1108.1	0.5792	14.750	991.6	0.5846
7	8.665	1139.4	0.5284	12.562	1096.3	0.5238	14.642	997.1	0.5304
8	8.598	1129.3	0.4795	12.451	1088.0	0.4758	14.564	1006.3	0.4828
9	8.789	1138.5	0.4377	12.703	1099.5	0.4348	14.904	1031.1	0.4418
10	8.653	1122.5	0.4019	12.540	1094.4	0.3996	14.777	1041.5	0.4063
11	8.454	1102.2	0.3717	12.310	1088.5	0.3697	14.580	1051.1	0.3762
12	8.216	1079.8	0.3460	12.043	1083.1	0.3442	14.344	1060.2	0.3504
13	7.962	1057.4	0.3242	11.760	1077.7	0.3223	14.093	1069.6	0.3280
14	7.699	1035.2	0.3054	11.457	1070.2	0.3033	13.817	1077.7	0.3085
15	7.419	1012.8	0.2892	11.111	1058.1	0.2867	13.489	1083.1	0.2914
16	7.106	988.8	0.2750	10.694	1039.3	0.2722	13.076	1084.3	0.2763
17	6.731	960.3	0.2627	10.173	1013.4	0.2594	12.528	1076.2	0.2630
18	6.262	925.6	0.2520	9.501	978.7	0.2484	11.776	1052.5	0.2514
19	5.665	882.7	0.2429	8.630	933.7	0.2389	10.761	1011.3	0.2414
20	4.763	823.2	0.2353	7.300	867.9	0.2311	9.167	940.1	0.2331
21	3.884	767.3	0.2295	5.960	802.4	0.2249	7.514	862.6	0.2266
22	3.008	715.0	0.2251	4.596	738.7	0.2204	5.791	781.9	0.2216
23	1.291	624.7	0.2222	1.978	633.6	0.2174	2.491	648.8	0.2185
24	0.754	597.7	0.2211	1.142	601.8	0.2164	1.426	609.0	0.2172

Table 4-88. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J1

	Assembly Number J1					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.933	620.6	0.7396	3.703	640.1	0.7396
2	10.285	821.0	0.7396	13.075	899.0	0.7396
3	14.567	889.6	0.7353	18.174	952.2	0.7350
4	16.917	954.9	0.6988	20.854	999.4	0.6989
5	17.778	990.9	0.6482	21.806	1012.8	0.6493
6	17.945	1010.7	0.5927	21.957	1010.5	0.5948
7	17.889	1020.4	0.5392	21.846	1002.3	0.5421
8	17.835	1025.0	0.4916	21.738	994.4	0.4949
9	18.254	1040.1	0.4501	22.192	999.5	0.4537
10	18.101	1035.1	0.4141	21.980	990.9	0.4181
11	17.852	1025.2	0.3835	21.658	980.3	0.3876
12	17.555	1013.7	0.3572	21.281	968.9	0.3614
13	17.247	1003.1	0.3345	20.893	957.6	0.3387
14	16.930	995.5	0.3147	20.500	947.0	0.3189
15	16.583	992.0	0.2973	20.086	937.8	0.3016
16	16.156	989.5	0.2820	19.600	929.7	0.2863
17	15.563	981.3	0.2685	18.938	920.4	0.2728
18	14.696	960.7	0.2566	17.964	906.2	0.2609
19	13.468	923.9	0.2463	16.552	882.2	0.2506
20	11.498	862.4	0.2377	14.226	837.7	0.2420
21	9.404	795.7	0.2309	11.681	784.6	0.2351
22	7.196	728.5	0.2257	8.916	723.8	0.2297
23	3.072	626.7	0.2224	3.781	624.8	0.2263
24	1.739	596.3	0.2209	2.120	595.2	0.2247

Table 4-89. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J2

	Assembly Number J2								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.053	623.3	0.7396	0.683	634.6	0.7396
2	0.000		0.7396	0.178	798.1	0.7396	2.234	835.9	0.7396
3	0.000		0.7396	0.249	915.0	0.7396	3.074	966.1	0.7396
4	0.000		0.7171	0.298	933.0	0.7171	3.593	974.6	0.7099
5	0.000		0.6792	0.325	976.9	0.6792	3.826	1008.8	0.6668
6	0.000	Data Not	0.6329	0.337	997.1	0.6329	3.906	1020.4	0.6161
7	0.000	Required	0.5835	0.343	1007.4	0.5835	3.925	1022.7	0.5644
8	0.000		0.5350	0.347	1014.3	0.5350	3.943	1025.1	0.5160
9	0.000		0.4903	0.365	1046.1	0.4903	4.100	1049.3	0.4727
10	0.000		0.4506	0.363	1042.5	0.4506	4.072	1044.8	0.4347
11	0.000		0.4167	0.357	1031.8	0.4167	4.001	1033.4	0.4025
12	0.000		0.3880	0.347	1014.3	0.3880	3.905	1018.5	0.3749
13	0.000		0.3632	0.336	995.4	0.3632	3.794	1001.6	0.3511
14	0.000		0.3421	0.324	975.2	0.3421	3.676	983.9	0.3308
15	0.000		0.3239	0.311	953.8	0.3239	3.548	965.1	0.3131
16	0.000		0.3081	0.297	931.4	0.3081	3.405	944.5	0.2978
17	0.000		0.2945	0.281	906.4	0.2945	3.235	920.5	0.2844
18	0.000		0.2827	0.261	876.2	0.2827	3.021	891.2	0.2728
19	0.000		0.2725	0.237	841.3	0.2725	2.743	854.4	0.2628
20	0.000		0.2643	0.198	787.7	0.2643	2.306	799.8	0.2547
21	0.000		0.2578	0.163	742.6	0.2578	1.893	751.3	0.2482
22	0.000		0.2527	0.128	700.0	0.2527	1.484	706.2	0.2433
23	0.000		0.2497	0.054	617.4	0.2497	0.636	620.8	0.2401
24	0.000		0.2482	0.032	594.5	0.2482	0.377	596.4	0.2388

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.402	638.8	0.7396	2.060	640.2	0.7396	2.438	633.8	0.7396
2	4.654	864.4	0.7396	6.989	890.9	0.7396	8.350	866.4	0.7396
3	6.579	1042.6	0.7369	9.981	1006.5	0.7342	11.877	947.7	0.7345
4	7.816	1078.3	0.7018	11.787	1110.4	0.6959	13.887	1002.6	0.6968
5	8.359	1131.6	0.6517	12.467	1137.1	0.6426	14.607	1013.8	0.6447
6	8.505	1143.3	0.5949	12.567	1128.0	0.5844	14.709	1014.4	0.5876
7	8.495	1138.2	0.5394	12.477	1112.5	0.5292	14.626	1016.3	0.5332
8	8.467	1130.1	0.4903	12.389	1101.0	0.4810	14.562	1023.1	0.4854
9	8.684	1140.7	0.4478	12.656	1110.6	0.4396	14.915	1047.9	0.4441
10	8.568	1125.1	0.4112	12.504	1103.7	0.4039	14.797	1057.8	0.4082
11	8.379	1104.6	0.3803	12.280	1097.0	0.3736	14.604	1067.0	0.3778
12	8.146	1081.3	0.3540	12.010	1090.0	0.3477	14.367	1076.8	0.3516
13	7.894	1057.8	0.3315	11.722	1083.3	0.3254	14.110	1086.1	0.3290
14	7.630	1034.1	0.3123	11.412	1074.7	0.3061	13.826	1094.0	0.3093
15	7.351	1010.2	0.2957	11.061	1061.4	0.2893	13.494	1099.8	0.2920
16	7.041	984.4	0.2812	10.645	1042.1	0.2747	13.078	1099.8	0.2768
17	6.675	955.0	0.2686	10.129	1015.5	0.2619	12.530	1090.1	0.2635
18	6.214	919.3	0.2577	9.461	980.0	0.2507	11.777	1064.6	0.2519
19	5.625	876.4	0.2484	8.591	933.9	0.2413	10.756	1020.9	0.2418
20	4.731	817.1	0.2407	7.265	867.4	0.2333	9.156	946.4	0.2335
21	3.865	762.5	0.2347	5.934	801.5	0.2272	7.505	866.6	0.2270
22	3.007	711.9	0.2301	4.592	738.3	0.2227	5.801	784.9	0.2221
23	1.300	624.0	0.2272	1.990	634.0	0.2197	2.512	650.4	0.2190
24	0.761	597.4	0.2261	1.153	602.2	0.2185	1.445	610.4	0.2178

Table 4-89. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J2

	Assembly Number J2					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.677	589.7	0.7396	3.349	629.3	0.7396
2	9.269	683.8	0.7396	11.705	848.0	0.7396
3	13.215	719.7	0.7366	16.353	889.1	0.7359
4	15.470	752.5	0.7026	18.840	919.7	0.7021
5	16.350	774.7	0.6556	19.774	927.0	0.6564
6	16.577	792.6	0.6040	19.973	923.2	0.6065
7	16.592	806.8	0.5544	19.941	916.9	0.5587
8	16.607	818.5	0.5099	19.923	912.5	0.5157
9	17.052	832.4	0.4703	20.447	923.1	0.4775
10	16.954	835.4	0.4352	20.439	935.3	0.4440
11	16.747	833.3	0.4045	20.231	935.2	0.4134
12	16.480	828.7	0.3777	19.911	928.0	0.3862
13	16.184	822.9	0.3542	19.551	919.3	0.3624
14	15.858	816.6	0.3336	19.158	910.4	0.3416
15	15.479	809.6	0.3156	18.712	901.5	0.3233
16	15.010	801.9	0.2998	18.168	891.7	0.3073
17	14.392	791.7	0.2858	17.459	880.0	0.2932
18	13.558	780.1	0.2739	16.495	863.5	0.2810
19	12.470	770.7	0.2640	15.211	839.2	0.2709
20	10.655	741.1	0.2555	13.053	798.5	0.2620
21	8.754	708.1	0.2485	10.732	751.4	0.2548
22	6.727	667.6	0.2423	8.208	699.2	0.2483
23	2.882	602.7	0.2375	3.489	615.5	0.2432
24	1.635	582.7	0.2344	1.958	590.1	0.2398

Table 4-90. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J3

	Assembly Number J3								
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.054	624.6	0.7396	0.669	632.7	0.7396
2	0.000		0.7396	0.183	805.9	0.7396	2.203	830.2	0.7396
3	0.000		0.7396	0.255	925.6	0.7396	3.033	957.6	0.7396
4	0.000		0.7155	0.302	939.3	0.7155	3.540	965.3	0.7113
5	0.000		0.6769	0.327	980.2	0.6769	3.768	998.7	0.6693
6	0.000	Data Not	0.6302	0.337	997.1	0.6302	3.851	1011.0	0.6196
7	0.000	Required	0.5808	0.341	1004.0	0.5808	3.876	1014.6	0.5684
8	0.000		0.5328	0.344	1009.1	0.5328	3.897	1017.7	0.5202
9	0.000		0.4888	0.361	1038.9	0.4888	4.055	1042.1	0.4768
10	0.000		0.4497	0.358	1033.6	0.4497	4.029	1038.1	0.4386
11	0.000		0.4165	0.351	1021.3	0.4165	3.960	1027.3	0.4062
12	0.000		0.3882	0.341	1004.0	0.3882	3.865	1012.7	0.3784
13	0.000		0.3639	0.330	985.3	0.3639	3.758	996.6	0.3546
14	0.000		0.3430	0.319	966.9	0.3430	3.645	979.6	0.3340
15	0.000		0.3249	0.307	947.4	0.3249	3.527	962.4	0.3162
16	0.000		0.3092	0.295	928.2	0.3092	3.398	943.7	0.3007
17	0.000		0.2955	0.281	906.4	0.2955	3.245	922.1	0.2870
18	0.000		0.2836	0.264	880.6	0.2836	3.050	895.1	0.2752
19	0.000		0.2733	0.241	847.0	0.2733	2.790	860.5	0.2649
20	0.000		0.2649	0.203	794.4	0.2649	2.361	806.4	0.2565
21	0.000		0.2581	0.167	747.6	0.2581	1.948	757.6	0.2498
22	0.000		0.2529	0.132	704.8	0.2529	1.530	711.1	0.2447
23	0.000		0.2498	0.055	618.5	0.2498	0.653	622.5	0.2415
24	0.000		0.2483	0.033	595.5	0.2483	0.386	597.2	0.2401

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.374	637.2	0.7396	2.049	642.4	0.7396	2.450	638.6	0.7396
2	4.587	859.0	0.7396	6.984	901.7	0.7396	8.423	887.7	0.7396
3	6.481	1032.5	0.7375	9.956	1019.2	0.7345	11.942	971.5	0.7343
4	7.690	1066.1	0.7035	11.731	1124.0	0.6966	13.917	1026.8	0.6966
5	8.233	1119.7	0.6546	12.407	1150.2	0.6438	14.625	1036.0	0.6445
6	8.396	1133.8	0.5987	12.520	1140.2	0.5858	14.730	1033.7	0.5873
7	8.404	1130.8	0.5437	12.441	1123.2	0.5305	14.652	1034.0	0.5327
8	8.388	1124.3	0.4944	12.360	1110.6	0.4821	14.590	1039.4	0.4846
9	8.611	1135.7	0.4518	12.629	1119.5	0.4405	14.943	1064.0	0.4431
10	8.499	1120.6	0.4149	12.473	1111.0	0.4046	14.821	1074.1	0.4072
11	8.312	1100.2	0.3837	12.239	1102.0	0.3741	14.618	1083.4	0.3766
12	8.080	1076.9	0.3573	11.956	1092.3	0.3482	14.365	1092.5	0.3504
13	7.828	1052.9	0.3347	11.651	1082.3	0.3258	14.086	1100.4	0.3277
14	7.566	1028.8	0.3153	11.326	1070.6	0.3066	13.782	1106.9	0.3081
15	7.293	1004.4	0.2986	10.972	1055.7	0.2899	13.439	1110.3	0.2910
16	6.995	978.5	0.2840	10.567	1036.4	0.2753	13.025	1107.5	0.2758
17	6.646	949.3	0.2713	10.071	1010.5	0.2626	12.491	1095.9	0.2626
18	6.206	914.1	0.2603	9.431	976.3	0.2515	11.762	1069.0	0.2511
19	5.639	872.0	0.2509	8.591	931.7	0.2420	10.771	1025.1	0.2411
20	4.760	813.9	0.2431	7.290	866.9	0.2341	9.198	950.8	0.2328
21	3.902	760.4	0.2370	5.974	801.9	0.2279	7.563	870.9	0.2263
22	3.037	710.2	0.2323	4.629	739.2	0.2233	5.855	788.5	0.2214
23	1.307	623.0	0.2293	1.999	634.2	0.2203	2.528	651.7	0.2183
24	0.762	596.6	0.2281	1.156	602.4	0.2192	1.453	611.2	0.2171

Table 4-90. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J3

	Assembly Number J3					
	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm^3)
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.678	588.3	0.7396	3.298	623.7	0.7396
2	9.281	674.9	0.7396	11.543	823.9	0.7396
3	13.164	704.7	0.7364	16.129	867.0	0.7359
4	15.355	732.9	0.7019	18.641	908.5	0.7020
5	16.224	754.7	0.6546	19.724	937.4	0.6561
6	16.476	775.2	0.6029	20.290	981.5	0.6066
7	16.536	794.9	0.5536	20.489	1001.7	0.5580
8	16.603	813.8	0.5098	20.600	1008.2	0.5138
9	17.102	835.7	0.4708	21.221	1026.5	0.4745
10	17.044	845.5	0.4362	21.242	1038.5	0.4399
11	16.862	848.8	0.4057	21.042	1035.7	0.4087
12	16.600	847.4	0.3788	20.708	1024.8	0.3812
13	16.294	843.2	0.3552	20.312	1011.3	0.3571
14	15.950	837.1	0.3344	19.870	996.9	0.3361
15	15.555	829.2	0.3162	19.369	981.5	0.3177
16	15.079	819.9	0.3001	18.775	964.7	0.3015
17	14.462	807.6	0.2860	18.021	945.5	0.2873
18	13.620	791.1	0.2737	17.005	921.8	0.2749
19	12.467	768.1	0.2631	15.617	890.7	0.2640
20	10.649	734.7	0.2542	13.412	841.9	0.2550
21	8.735	698.3	0.2469	11.034	787.1	0.2476
22	6.712	659.3	0.2407	8.452	725.9	0.2413
23	2.864	598.9	0.2358	3.584	625.8	0.2365
24	1.624	580.6	0.2327	2.013	596.0	0.2335