

**Civilian Radioactive Waste Management System
Management & Operating Contractor**

**Summary Report of Commercial Reactor Criticality Data
for LaSalle Unit 1**

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September 1999

Prepared for:

U.S. Department of Energy
Yucca Mountain Site Characterization Project Office
P.O. Box 30307
Las Vegas, NV 89036-0307

Prepared by:

CRWMS/M&O
1261 Town Center Drive
Las Vegas, Nevada 89144

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Prepared by: DA Thomas FOR D.P.H. Date: 09/13/1999
D. P. Henderson, Preparer
Neutronics Methodology

Reviewed by: P.M. Noel Date: 09/13/1999
P. M. Noel, Checker
Neutronics Methodology

Reviewed by: DA Thomas FOR MKP Date: 09/13/1999
M. K. Punatar, Checker (FCF 1999 Input)
Neutronics Methodology

Approved by: DA Thomas Date: 09/13/1999
D. A. Thomas, Manager
Neutronics Methodology

Approved by: T. W. Doering Date: 9.24.99
T. W. Doering, Department Manager
Waste Package Design

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1. INTRODUCTION

The "Summary Report of Commercial Reactor Criticality Data for LaSalle Unit 1" contains the detailed information necessary to perform commercial reactor criticality (CRC) analyses for the LaSalle Unit 1 (LS1) 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. 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 LS1 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 *Disposal Criticality Analysis Methodology Topical Report*.

1.3 SCOPE

The scope of this summary report is the presentation of data required to perform 5 statepoint calculations for Cycles 7 and 8 of LS1. 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 Management and Operating Contractor (CRWMS M&O). FCF requested and received permission from Commonwealth Edison, the owner/operator of LS1, to publish the non-proprietary information related to statepoint measurements that is 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.

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 LS1 reactor and internals. LaSalle Unit 1 is a General Electric boiling water reactor (BWR) with a rated power of 3323 MWt. The reactor core for Cycles 4 through 8 consisted of 764 GE 8x8 fuel assemblies. Figure 2-1 illustrates a typical core cell with a control blade. Table 2-1 summarizes reactor vessel and 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 flow of the coolant.

The fixed incore ion chambers provide continuous power range neutron flux monitoring. A probe tube in each incore assembly provides for a traversing ion chamber for calibration and axial detail. Source and intermediate range monitors are located in the core and are axially retractable. The incore location of the startup and source range instruments provides coverage of the large reactor core and provides an acceptable signal-to-noise ratio and neutron-to-gamma ratio. All incore instrument leads enter from the bottom and continuous neutron flux monitoring is provided during refueling.

There are two types of control blades currently being used, both of which are bottom-entry cruciform control rods. The original General Electric control blades consist of boron carbide powder in stainless steel tubes surrounded by a stainless steel sheath. The second type of blades are Asea-Atom control blades which are built from a solid bar of stainless steel which contain both boron carbide powder and hafnium.

The number of digits in the values cited herein may be the result of a calculation or may reflect input from another source; consequently, the number of digits should not be interpreted as an indication of accuracy.

Table 2-1. LaSalle Unit 1 Core Design Information

| | |
|---------------------------------------|-----------------------------|
| Reactor Vessel | |
| Inner diameter | 642.62 cm (21 ft 1 in.) |
| Base metal material | SA-533 Grade B |
| Wall thickness | 17.93 cm (7.06 in.) nominal |
| Clad material | stainless steel |
| Reactor Internals Material | |
| Shroud | stainless steel |
| Core support assembly | stainless steel |
| Fuel support plate | stainless steel |
| Control blade guide tubes | stainless steel |
| Incore instrument tubes | stainless steel |
| Core | |
| Equivalent core diameter | 475.3 cm (187.1 in.) |
| Circumscribed core diameter (D_c) | 504.5 cm (198.6 in.) |
| Core lattice pitch (control cell) | 30.48 cm (12 in.) |
| Total fuel assemblies in core | 764 |

2.2 FUEL ASSEMBLY DESIGN INFORMATION

This section provides a brief description of the fuel assembly design used in Cycles 4 through 8 of the LS1 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 4 through 8 are included. All assemblies used in this analysis were of the GE8x8NB design.

GE8x8NB (GE9) fuel is designed and manufactured by GE. 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 assembly has a 12-inch natural uranium blanket at the top. Figure 2-2 illustrates the GE8x8NB fuel assembly layout.

2.3 GENERAL FUEL BATCH DATA

Table 2-2 provides material and geometry data for each fuel batch in Cycles 4-8. The radial dimensions of the fuel clad and water tube are also included. This data can be used for fuel assembly modeling in the depletion calculations and reactor criticality calculations for the statepoints defined in Table 3-6.

Table 2-2. LaSalle Unit 1 Fuel Assembly Core Data

| Description | Applicable Data |
|------------------------------------------|--------------------------------------|
| Fuel assembly array size and types | GE 8x8NB (GE9B) |
| Number of fuel pins (N_R) / assembly | 60 |
| Number of water rods | 1 |
| Number of assemblies in core | 764 |
| Number of control rods in core | 185 |
| System pressure | 1020 psia (7.03266 MPa) |
| Active fuel height (H) | 150.00 in. (381.00 cm) |
| Pin pitch | 0.640 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 |
| Fuel pellet diameter | 0.411 in. (1.04394 cm) |
| Fuel material | UO ₂ |
| Water rod outside diameter | 1.34 in. (3.4036 cm) |
| Water rod inside diameter | 1.26 in. (3.2004 cm) |
| Water rod material | Zircaloy |
| Channel - inner width | 5.278 in. (13.4061 cm) |
| - thickness | 0.100 in. (0.254 cm) Cycles 4-7 fuel |
| - thickness | 0.080 in. (0.203 cm) Cycle 14 fuel |
| Channel material | Zircaloy |
| Reference moderator density | 0.7396 g/cm ³ |

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

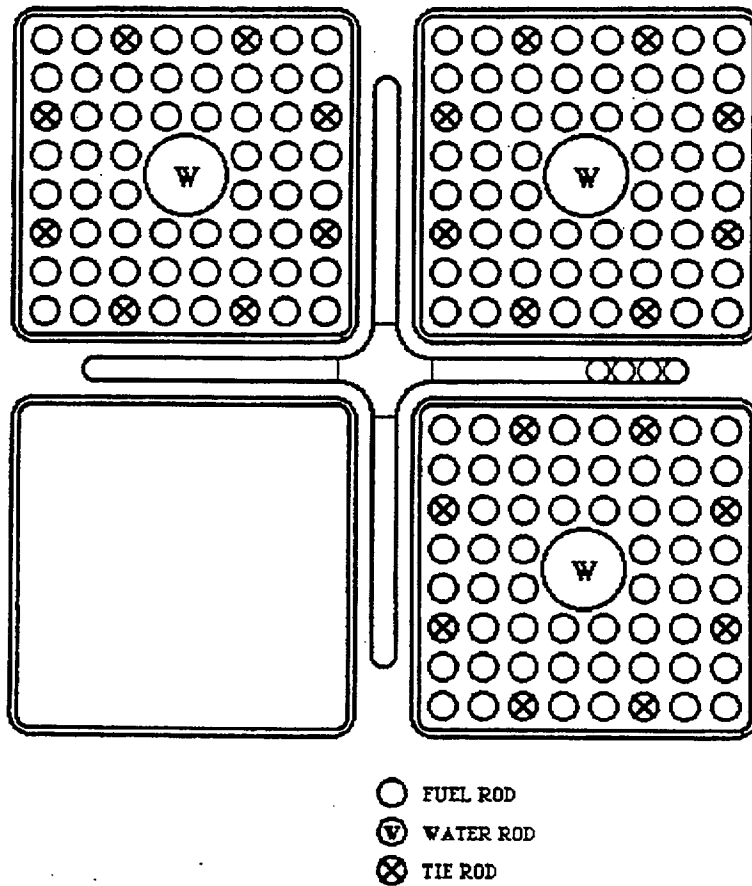


Figure 2-1. LS1 Typical Core Cell for GE8x8NB Assemblies

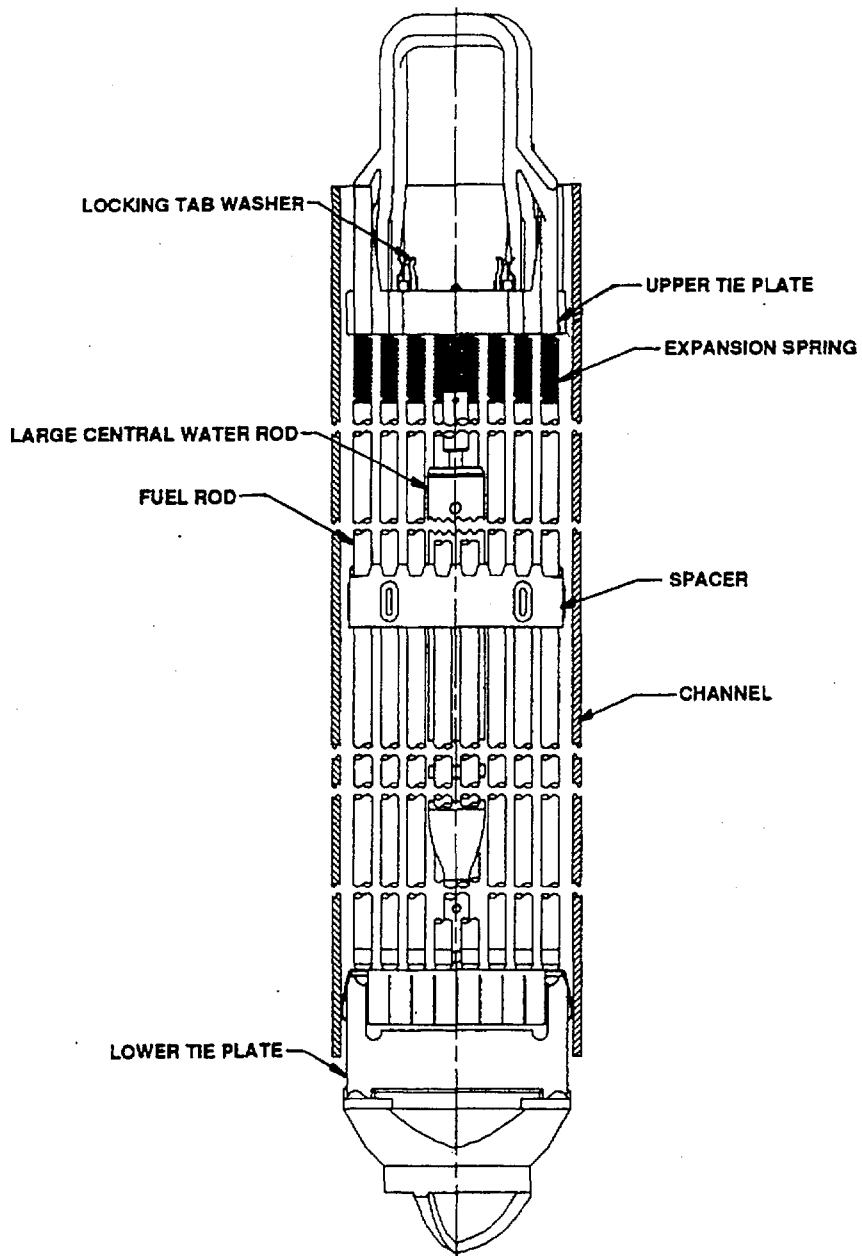


Figure 2-2. LS1 GE 8x8NB Fuel Assembly

3. FUEL CYCLE DESIGN INFORMATION

This section provides fuel assembly design data for Cycles 4 through 8 of the LS1 reactor. Material and geometry data for the fuel assembly components are presented in Section 3.1 and in Table 2-2. The fuel assembly locations, the fuel enrichments, and the burnable absorber enrichments for each assembly are presented in Section 3.4.

3.1 FUEL BATCH DATA

Material and geometry data for each fresh fuel batch are given in Table 3-1. This includes the fuel type, the SAS2H designation, the average enrichment, and the number of water rods. 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 3-7. Table 3-2 provides the number and type of fuel assemblies in the core during each cycle.

The length of each fuel cycle, expressed as effective full power days (EFPD), is provided in Table 3-6.

Table 3-1. LS1 Fuel Assembly Cycle Description for Cycles 4-8

| <u>Cycle</u> | <u>SAS2H</u> | <u>Fresh Fuel Batch Type</u> | <u>Fuel Design</u> | <u>Fuel Type</u> | <u>Assembly U-235 wt%</u> | <u>No. of Water Rods</u> |
|--------------------|--------------|------------------------------|--------------------|------------------|---------------------------|--------------------------|
| 4 | A | GE9B | GE 8x8 | 9 | 3.253 | 1 |
| | B | GE9B | GE 8x8 | 8 | 3.007 | 1 |
| 5 | C | GE9B | GE 8x8 | 10 | 3.027 | 1 |
| 6 | D | GE9B | GE 8x8 | 11 | 3.133 | 1 |
| | E | GE9B | GE 8x8 | 12 | 3.133 | 1 |
| 7 | F | GE9B | GE 8x8 | 2 | 3.200 | 1 |
| | G | GE9B | GE 8x8 | 1 | 3.220 | 1 |
| 8 | H | GE9B | GE 8x8 | 5 | 3.420 | 1 |
| | J | GE9B | GE 8x8 | 4 | 3.430 | 1 |
| <u>Description</u> | | <u>Material</u> | <u>OD (cm)</u> | <u>ID (cm)</u> | | |
| Fuel Clad | | Zircaloy-2 | 1.2268 | 1.06426 | | |
| Fuel Pellet | | UO ₂ | 1.0439 | | | |

Table 3-2. LS1 Fuel Assembly Types for Cycles 4-8

| SAS2H ID | Fuel Type | Product Line | Cycle 4 | Cycle 5 | Cycle 6 | Cycle 7 | Cycle 8 |
|----------|-----------|--------------|---------|---------|---------|---------|---------|
| -- | 2 | | 33 | | | | |
| -- | 3 | | 104 | | | | |
| -- | 5 | | 231 | 176 | 44 | | |
| -- | 6 | | 112 | 112 | 84 | | |
| -- | 7 | | 112 | 112 | 72 | | |
| A | 9 | GE9 | 96 | 96 | 96 | 96 | |
| B | 8 | GE9 | 76 | 76 | 76 | 68 | |
| C | 10 | GE9 | | 192 | 192 | 192 | 108 |
| D | 11 | GE9 | | | 128 | 128 | 128 |
| E | 12 | GE9 | | | 72 | 72 | 72 |
| F | 2 | GE9 | | | | 104 | 104 |
| G | 1 | GE9 | | | | 104 | 104 |
| H | 5 | GE9 | | | | | 144 |
| J | 4 | GE9 | | | | | 104 |
| Total = | | | 764 | 764 | 764 | 764 | 764 |

The number of assemblies indicated is the total number of assemblies in the core. Only selected assemblies are considered for the LS1 depletion calculations.

Table 3-3 provides a summary of the average axial enrichments, gadolinia enrichments, and channel thickness for each axial zone. This composition is provided for the 25 node format in Table 3-4 and for the 10 node format in Table 3-5. The 25 node and 10 node formats are discussed in Section 4.1.

Table 3-3. LS1 Fuel Assembly Cross Section Properties

| Cross Section ID | Number of Fuel Rods | Average Enrichment (wt% U-235) | Number of Gadolinia Rods | Gadolinia Enrichment (wt%) | Channel Thickness (in.) |
|------------------|---------------------|--------------------------------|--------------------------|----------------------------|-------------------------|
| 100 | 48 | 0.71 | 0 | 0 | 0.100 |
| 101 | 60 | 0.71 | 0 | 0 | 0.100 |
| 102 | 60 | 3.50 | 4 / 6 | 5.0 / 4.0 | 0.100 |
| 103 | 60 | 3.65 | 6 / 6 | 5.0 / 4.0 | 0.100 |
| 104 | 60 | 3.65 | 4 / 6 | 5.0 / 4.0 | 0.100 |
| 105 | 60 | 3.50 | 7 / 3 | 5.0 / 4.0 | 0.100 |
| 106 | 49 | 0.71 | 0 | 0 | 0.100 |
| 107 | 60 | 0.71 | 0 | 0 | 0.100 |
| 108 | 60 | 3.23 | 9 | 3.0 | 0.100 |
| 109 | 60 | 3.37 | 2 / 9 | 4.0 / 3.0 | 0.100 |
| 110 | 60 | 3.37 | 9 | 3.0 | 0.100 |
| 111 | 60 | 3.23 | 5 / 4 | 4 / 3 | 0.100 |
| 112 | 51 | 0.71 | 0 | 0 | 0.100 |
| 113 | 60 | 0.71 | 0 | 0 | 0.100 |
| 114 | 60 | 3.27 | 4 / 5 | 5.0 / 4.0 | 0.100 |
| 115 | 60 | 3.38 | 4 / 5 | 5.0 / 4.0 | 0.100 |
| 116 | 60 | 3.27 | 9 | 5.0 | 0.100 |
| 117 | 49 | 0.71 | 0 | 0 | 0.100 |
| 150 | 60 | 0.71 | 0 | 0 | 0.100 |
| 118 | 60 | 3.45 | 9 | 4.0 | 0.100 |
| 119 | 60 | 3.62 | 2 / 9 | 5.0 / 4.0 | 0.100 |
| 120 | 60 | 3.62 | 9 | 4.0 | 0.100 |
| 121 | 60 | 3.45 | 5 / 4 | 5.0 / 4.0 | 0.100 |
| 122 | 51 | 0.71 | 0 | 0 | 0.100 |
| 123 | 60 | 0.71 | 0 | 0 | 0.100 |
| 124 | 60 | 3.39 | 7 | 4.0 | 0.100 |
| 125 | 60 | 3.50 | 9 | 4.0 | 0.100 |
| 126 | 60 | 3.50 | 7 | 4.0 | 0.100 |
| 127 | 51 | 0.71 | 0 | 0 | 0.100 |
| 128 | 60 | 0.71 | 0 | 0 | 0.100 |
| 129 | 60 | 3.39 | 2 / 5 | 4.0 / 3.0 | 0.100 |
| 130 | 60 | 3.50 | 4 / 5 | 4.0 / 3.0 | 0.100 |
| 131 | 60 | 3.50 | 2 / 5 | 4.0 / 3.0 | 0.100 |
| 132 | 60 | 3.39 | 7 | 4.0 | 0.100 |

Table 3-3. LS1 Fuel Assembly Cross Section Properties (Continued)

| Cross Section ID | Number of Fuel Rods per Assembly | Average Enrichment (wt% U-235) | Number of Gadolinia Rods | Gadolinia (wt%) | Channel Thickness (in.) |
|------------------|----------------------------------|--------------------------------|--------------------------|-----------------|-------------------------|
| 133 | 51 | 0.71 | 0 | 0 | 0.100 |
| 134 | 60 | 0.71 | 0 | 0 | 0.100 |
| 135 | 60 | 3.46 | 7 | 4.0 | 0.100 |
| 136 | 60 | 3.58 | 2 / 7 | 5.0 / 4.0 | 0.100 |
| 137 | 60 | 3.58 | 7 | 4.0 | 0.100 |
| 138 | 60 | 3.46 | 4 / 3 | 5.0 / 4.0 | 0.100 |
| 139 | 50 | 0.71 | 0 | 0 | 0.080 |
| 140 | 60 | 0.71 | 0 | 0 | 0.080 |
| 141 | 60 | 3.63 | 8 | 4.0 | 0.080 |
| 142 | 60 | 3.88 | 2 / 8 | 5.0 / 4.0 | 0.080 |
| 143 | 60 | 3.88 | 8 | 4.0 | 0.080 |
| 144 | 60 | 3.63 | 8 | 5.0 | 0.080 |
| 145 | 48 | 0.71 | 0 | 0 | 0.080 |
| 146 | 60 | 0.71 | 0 | 0 | 0.080 |
| 147 | 60 | 3.63 | 10 | 5.0 | 0.080 |
| 148 | 60 | 3.90 | 12 | 5.0 | 0.080 |
| 149 | 60 | 3.90 | 10 | 5.0 | 0.080 |

Table 3-4. LS1 25 Node Fuel Assembly Axial Composition

| Assembly Nodes | Node Length | | Cross Section Number by Node | | | | | | | | |
|------------------------|-------------|-------|------------------------------|-----------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|
| | (in.) | (cm) | Type 8 (B) Fuel | Type 9 (A) Fuel | Type 10 (C) Fuel | Type 11 (D) Fuel | Type 12 (E) Fuel | Type 1 (G) Fuel | Type 2 (F) Fuel | Type 4 (J) Fuel | Type 5 (H) Fuel |
| 25 (top) | 6 | 15.24 | 106 | 100 | 112 | 127 | 122 | 117 | 133 | 145 | 139 |
| 24 | 6 | 15.24 | 107 | 101 | 113 | 128 | 123 | 150 | 134 | 146 | 140 |
| 23 | 6 | 15.24 | 108 | 102 | 114 | 129 | 124 | 118 | 135 | 147 | 141 |
| 22 | 6 | 15.24 | 108 | 102 | 114 | 129 | 124 | 118 | 135 | 147 | 141 |
| 21 | 6 | 15.24 | 108 | 102 | 114 | 129 | 124 | 118 | 135 | 147 | 141 |
| 20 | 6 | 15.24 | 109 | 103 | 115 | 130 | 125 | 119 | 136 | 148 | 142 |
| 19 | 6 | 15.24 | 109 | 103 | 115 | 130 | 125 | 119 | 136 | 148 | 142 |
| 18 | 6 | 15.24 | 109 | 103 | 115 | 130 | 125 | 119 | 136 | 148 | 142 |
| 17 | 6 | 15.24 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 16 | 6 | 15.24 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 15 | 6 | 15.24 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 14 | 6 | 15.24 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 13 | 6 | 15.24 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 12 | 6 | 15.24 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 11 | 6 | 15.24 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 10 | 6 | 15.24 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 9 | 6 | 15.24 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 8 | 6 | 15.24 | 111 | 105 | 116 | 132 | 124 | 120 | 138 | 147 | 144 |
| 7 | 6 | 15.24 | 111 | 105 | 116 | 132 | 124 | 120 | 138 | 147 | 144 |
| 6 | 6 | 15.24 | 111 | 105 | 116 | 132 | 124 | 120 | 138 | 147 | 144 |
| 5 | 6 | 15.24 | 111 | 105 | 116 | 132 | 124 | 120 | 138 | 147 | 144 |
| 4 | 6 | 15.24 | 111 | 105 | 116 | 132 | 124 | 120 | 138 | 147 | 144 |
| 3 | 6 | 15.24 | 111 | 105 | 116 | 132 | 124 | 120 | 138 | 147 | 144 |
| 2 | 6 | 15.24 | 111 | 105 | 116 | 132 | 124 | 120 | 138 | 147 | 144 |
| 1 (Bottom) | 6 | 15.24 | 107 | 101 | 113 | 128 | 123 | 150 | 134 | 146 | 144 |
| U-235 Enrichment (wt%) | | | 3.007 | 3.253 | 3.027 | 3.133 | 3.133 | 3.220 | 3.200 | 3.430 | 3.420 |

Table 3-5. LS1 10 Node Fuel Assembly Axial Composition

| SAS2H Nodes | Node Length | | Cross Section Number by Node | | | | | | | | |
|------------------------|-------------|-------|------------------------------|-----------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|
| | (in.) | (cm) | Type 8 (B) Fuel | Type 9 (A) Fuel | Type 10 (C) Fuel | Type 11 (D) Fuel | Type 12 (E) Fuel | Type 1 (G) Fuel | Type 2 (F) Fuel | Type 4 (J) Fuel | Type 5 (H) Fuel |
| 10 (top) | 6 | 15.24 | 106 | 100 | 112 | 127 | 122 | 117 | 145 | 145 | 139 |
| 9 | 6 | 15.24 | 107 | 101 | 113 | 128 | 123 | 150 | 134 | 146 | 140 |
| 8 | 18 | 45.72 | 108 | 102 | 114 | 129 | 124 | 118 | 135 | 147 | 141 |
| 7 | 18 | 45.72 | 109 | 103 | 115 | 130 | 125 | 119 | 136 | 148 | 142 |
| 6 | 18 | 45.72 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 5 | 18 | 45.72 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 4 | 18 | 45.72 | 110 | 104 | 115 | 131 | 126 | 120 | 137 | 149 | 143 |
| 3 | 24 | 60.96 | 111 | 105 | 116 | 132 | 124 | 121 | 138 | 147 | 144 |
| 2 | 18 | 45.72 | 111 | 105 | 116 | 132 | 124 | 121 | 138 | 147 | 144 |
| 1 (Bottom) | 6 | 15.24 | 107 | 101 | 113 | 128 | 123 | 150 | 134 | 146 | 140 |
| U-235 Enrichment (wt%) | | | 3.007 | 3.253 | 3.027 | 3.133 | 3.133 | 3.220 | 3.200 | 3.430 | 3.420 |

3.2 OPERATING CYCLE SUMMARY

This section provides operating cycle and shutdown histories for LS1 Cycles 4 through 8.

Table 3-6 summarizes the LS1 core operating cycle history during Cycles 4 through 8. This table provides the cycle depletion as a function of EFPD. Shutdown history is provided in terms of calendar days between cycles.

Table 3-6. LS1 Core Operating Cycle History for Cycles 4-8

| Cycle | Beginning of Cycle (BOC) (m-d-y) | End of Cycle (EOC) (m-d-y) | EFPD |
|-------|-------------------------------------|-------------------------------|--------|
| 4 | 01-05-90 | 02-16-91 | 375.32 |
| 5 | 05-12-91 | 10-03-92 | 467.14 |
| 6 | 01-30-93 | 02-18-94 | 316.01 |
| 7 | 06-24-94 | 01-25-96 | 495.23 |
| 8 | 04-21-96 | N/A | N/A |

N/A – Not applicable.

Shutdown History Between Cycles

| <u>Outage</u> <u>EOC to BOC</u> | <u>Calendar</u> <u>days</u> |
|------------------------------------|--------------------------------|
| 04 to 05 | 85 |
| 05 to 06 | 119 |
| 06 to 07 | 126 |
| 07 to 08 | 87 |

3.3 DATAPOINTS AND STATEPOINTS

A statepoint (SP) is defined as a point at which a reactor achieves criticality during the initial startup following a shutdown. Actual measured data must exist at the selected statepoint so that depletion and reactivity calculations can be performed. Statepoints of this type 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. A datapoint (DP) is defined as a breakpoint in thermal hydraulic feedback and exposure data that is used in assembly fuel depletions prior to exposures where statepoint information is available.

The BOC and restart data for LaSalle Unit 1 contained in this document includes cores that contain both “fresh” (BOC) and burned fuel and cores that have all burned fuel (restarts). The depletion and reactivity calculations will encompass various fuel burnups, 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 the known value of $k_{eff}=1.0$.

Table 4-317 provides the critical conditions for the BOCs and restarts during cycle operation for selected statepoints. The 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 7 and Cycle 8 for the statepoint evaluations were initially inserted in the core during Cycles 4 through 6. The modeling of the fuel assemblies, which were inserted prior to Cycles 7 and 8, require fuel operating history from the time the fuel assembly was first inserted into the core. There are 6 datapoints occurring at BOC or middle of cycle (MOC) prior to the 5 statepoints. Thermal hydraulic feedback and exposure data are provided for each datapoint and statepoint in Section 4.1.

Table 3-7 provides shutdown and startup dates for Cycles 4 through 8. Table 4-317 provides the startup date for each statepoint. The cycle shutdown and startup dates were used in determining the downtime between cycles.

Table 3-7. LS1 Datapoints and Statepoints for SAS2H

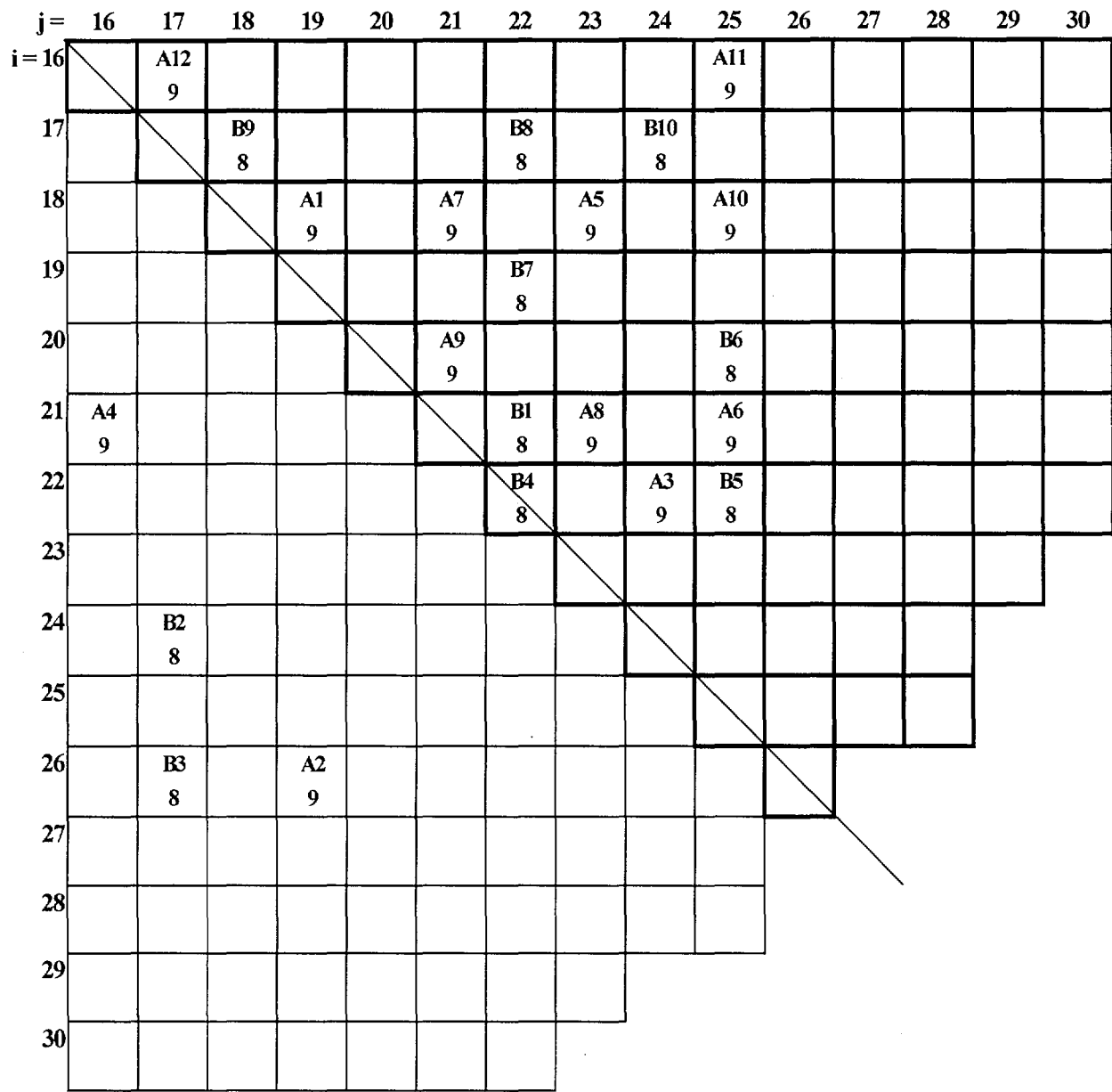
| Datapoint | Cycle | Cycle Time | Cycle Exposure (MWd/MTU) | Cycle EFPD |
|------------------|--------------|-------------------|---------------------------------|-------------------|
| DP1 | 4 | BOC | 0.00 | 0 |
| DP2 | 4 | MOC | 4963.00 | 208.56 |
| | 4 | EOC | 8931.57 | 375.32 |
| DP3 | 5 | BOC | 0.00 | 0.00 |
| DP4 | 5 | MOC | 5745.68 | 239.48 |
| | 5 | EOC | 11207.90 | 467.14 |
| DP5 | 6 | BOC | 0.00 | 0.00 |
| DP6 | 6 | MOC | 4752.16 | 196.09 |
| | 6 | EOC | 7658.39 | 316.01 |
| SP7 | 7 | BOC | 0.00 | 0.00 |
| SP8 | 7 | MOC | 4728.36 | 193.20 |
| SP9 | 7 | MOC | 7507.28 | 306.75 |
| | 7 | EOC | 12119.87 | 495.23 |
| SP10 | 8 | BOC | 0.00 | 0.00 |
| SP11 | 8 | MOC | 89.80 | 3.67 |

3.4 FUEL ASSEMBLY HISTORY

The LS1 reactor core contains 764 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 764 to the number described by the core symmetry. Table 3-8 traces each fuel assembly by identification and cycle from the time the assembly was first inserted into the reactor. The table includes only the fuel assemblies that contribute to the statepoint criticality calculations for Cycle 7 and Cycle 8. The coordinates provided in Figures 3-1 through 3-5 indicate the location of each assembly in each cycle. Fifteen of the 1/8 core Cycle 7 fuel assemblies inserted in Cycle 8 are outside of the selected 1/8 core of Cycle 8. This assembly selection process ensures that the complete depletion history is included in the calculation for all of the required fuel assemblies. The criticality calculations consider a total of 150 assemblies.

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 designations are assigned for each of the selected 150 fuel assemblies. Starting with the letters A and B for Cycle 4, each subsequent cycle is assigned a unique letter designation (C for Cycle 5, D and E for Cycle 6, F and G for Cycle 7, and H and J for Cycle 8). In addition to the letter designation, each fuel assembly is assigned a number.

Figure 4-1 indicates the location of the active blade locations. This data is applicable to the modeling of control blade insertions during the lifetime of the assembly. Information concerning the use of control blades and the mode of operation (control blades inserted) is given in Section 4.2.



| | |
|-------|-----------------------------------------------------------------------------------|
| F_i | Fuel Assembly Designation (A_i and B_i are fresh fuel assemblies in Cycle 4) |
| N | Fuel Type (Types 8 and 9 are fresh fuel assemblies in Cycle 4) |

Figure 3-1. LS1 Cycle 4 Fuel Assembly Identification, Location, and Type

| | | | | | | | | | | | | | | | |
|------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|----|----|
| j= | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| i=16 | | C28 10 | B6 8 | | | C29 10 | B9 8 | | | C30 10 | B5 8 | | A6 9 | | |
| 17 | C22 10 | | C23 10 | B8 8 | C24 10 | | | A5 9 | C25 10 | | C26 10 | C27 10 | | | |
| 18 | | | | | A7 9 | C18 10 | | C19 10 | B1 8 | C20 10 | | C21 10 | | | |
| 19 | | | C15 10 | | | | C16 10 | | | C17 10 | A10 9 | | | | |
| 20 | | | | | | C13 10 | A9 9 | | | | C14 10 | A1 9 | | | |
| 21 | | | C10 10 | | C11 10 | B4 8 | | | C12 10 | A8 9 | | | | | |
| 22 | | C6 10 | | | | C7 10 | | C8 10 | A3 9 | C9 10 | | B10 8 | | | |
| 23 | | | | | | | C4 10 | | A12 9 | C5 10 | A11 9 | | | | |
| 24 | | | | | | C3 10 | | | | B7 8 | | | | | |
| 25 | | | | C2 10 | | | | | | | | | | | |
| 26 | | | B3 8 | | | C1 10 | | | | | | | | | |
| 27 | | | | | | A4 9 | B2 8 | | | | | | | | |
| 28 | | A2 9 | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | |

| | |
|----|---------------------------------------------------------------------|
| Fi | Fuel Assembly Designation (Ci are fresh fuel assemblies in Cycle 5) |
| N | Fuel Type (Type 10 are fresh fuel assemblies in Cycle 5) |

Figure 3-2. LS1 Cycle 5 Fuel Assembly Identification, Location, and Type

| j = | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|--------|----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----|----|
| i = 16 | B6 8 | E12 12 | C20 10 | B1 8 | C29 10 | D21 11 | B7 8 | C26 10 | A3 9 | | A4 9 | C14 10 | A6 9 | | |
| 17 | | | D16 11 | C6 10 | E11 12 | B9 8 | D17 11 | C10 10 | D18 11 | A12 9 | D19 11 | D20 11 | | | |
| 18 | | D12 11 | | E9 12 | C16 10 | E10 12 | B3 8 | D13 11 | A10 9 | D14 11 | A9 9 | D15 11 | C5 10 | | |
| 19 | | | | B10 8 | B5 8 | C9 10 | | A11 9 | A8 9 | C24 10 | D11 11 | C21 10 | C17 10 | | |
| 20 | | E7 12 | | | C11 10 | E8 12 | C30 10 | A5 9 | | D9 11 | A1 9 | D10 11 | | | |
| 21 | | | E5 12 | | | B4 8 | D7 11 | C23 10 | E6 12 | B8 8 | D8 11 | C8 10 | C12 10 | | |
| 22 | | | | E3 12 | | | | E4 12 | | D6 11 | C28 10 | C27 10 | | | |
| 23 | | C18 10 | | | | | E2 12 | B2 8 | C1 10 | D5 11 | C25 10 | C19 10 | | | |
| 24 | | D4 11 | | | C7 10 | | C15 10 | | C13 10 | A7 9 | | | | | |
| 25 | E1 12 | | D2 11 | | | | | D3 11 | | | | | | | |
| 26 | | | | | | D1 11 | C22 10 | | | | | | | | |
| 27 | | | | | | C4 10 | | | | | | | | | |
| 28 | | A2 9 | | C2 10 | | C3 10 | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | |

| | |
|----|----------------------------------------------------------------------------|
| Fi | Fuel Assembly Designation (Di and Ei are fresh fuel assemblies in Cycle 6) |
| N | Fuel Type (Types 11 and 12 are fresh fuel assemblies in Cycle 6) |

Figure 3-3. LS1 Cycle 6 Fuel Assembly Identification, Location, and Type

| j = | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|--------|-----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| i = 16 | C17 10 | G15 1 | D8 11 | C19 10 | C5 10 | G16 1 | D10 11 | C25 10 | C20 10 | F17 2 | C30 10 | F18 2 | D7 11 | C29 10 | A11 9 |
| 17 | | B10 8 | G11 1 | D5 11 | G12 1 | C7 10 | G13 1 | E8 12 | G14 1 | C23 10 | F15 2 | F16 2 | C26 10 | E9 12 | A5 9 |
| 18 | D1 11 | G7 1 | B2 8 | G8 1 | C27 10 | G9 1 | C6 10 | G10 1 | D9 11 | F13 2 | A6 9 | F14 2 | D19 11 | D11 11 | A12 9 |
| 19 | | D3 11 | G4 1 | C18 10 | E12 12 | E3 12 | G5 1 | D21 11 | C15 10 | G6 1 | F12 2 | C16 10 | D17 11 | E6 12 | A8 9 |
| 20 | | | | | C10 10 | G3 1 | E10 12 | C24 10 | E1 12 | C1 10 | F11 2 | C9 10 | D14 11 | C21 10 | B7 8 |
| 21 | | | | | | C11 10 | F8 2 | C12 10 | F9 2 | G2 1 | F10 2 | D15 11 | E4 12 | A1 9 | B3 8 |
| 22 | | | | | E5 12 | F5 2 | C13 10 | F6 2 | D20 11 | F7 2 | A4 9 | D13 11 | A3 9 | A7 9 | B9 8 |
| 23 | | | G1 1 | | | C3 10 | | D16 11 | C28 10 | D6 11 | D18 11 | C8 10 | A9 9 | B4 8 | |
| 24 | | | | | | | | C22 10 | C2 10 | E11 12 | A2 9 | C14 10 | B5 8 | | |
| 25 | | | F4 2 | | | | | | E7 10 | D12 11 | A10 9 | B1 8 | B8 8 | | |
| 26 | | | | F2 2 | | F3 2 | | D4 11 | | | | B6 8 | | | |
| 27 | F1 2 | | | | | | | C4 10 | | | | | | | |
| 28 | | | | | D2 11 | E2 12 | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | |

| | |
|----|----------------------------------------------------------------------------|
| Fi | Fuel Assembly Designation (Fi and Gi are fresh fuel assemblies in Cycle 7) |
| N | Fuel Type (Types 1 and 2 are fresh fuel assemblies in Cycle 7) |

Figure 3-4. LS1 Cycle 7 Fuel Assembly Identification, Location, and Type

| j = | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
|--------|-----------|-----------|---------|-----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| i = 16 | D4 11 | H18 5 | F3 2 | D13 11 | E6 12 | J5 4 | F17 2 | E9 12 | D15 11 | J11 4 | F6 2 | F2 2 | D10 11 | E5 12 | C4 10 |
| 17 | | D16 11 | J6 4 | G7 1 | J12 4 | F7 2 | J4 4 | F1 2 | H10 5 | E7 12 | J10 4 | H6 5 | H7 5 | E1 12 | C5 10 |
| 18 | F10 2 | | F4 2 | H9 5 | G12 1 | J8 4 | F14 2 | J9 4 | G14 1 | H16 5 | F16 2 | H12 5 | F15 2 | D7 11 | C2 10 |
| 19 | | G11 1 | | D12 11 | D2 11 | G15 1 | J2 4 | D3 11 | E2 12 | G5 1 | H15 5 | G9 1 | D19 11 | D21 11 | C19 10 |
| 20 | | | | D14 11 | G1 1 | J13 4 | G6 1 | D11 11 | G3 1 | J7 4 | H1 5 | D20 11 | D6 11 | D9 11 | C29 10 |
| 21 | | | | | | G10 1 | H5 5 | G4 1 | J1 4 | H2 5 | C14 10 | H11 5 | F9 2 | E8 12 | C25 10 |
| 22 | | | | | | | D8 11 | J3 4 | H13 5 | G2 1 | H17 5 | H3 5 | G16 1 | E3 12 | C1 10 |
| 23 | | F18 2 | | D5 11 | | G8 1 | | D18 11 | D17 11 | H8 5 | H14 5 | H4 5 | E12 12 | C26 10 | |
| 24 | | | | E4 12 | | | | | D1 11 | F11 2 | G13 1 | F5 2 | C3 10 | | |
| 25 | | E11 12 | | | | | | | | F13 2 | C21 10 | C27 10 | C22 10 | | |
| 26 | | | | | | | | | | | C9 10 | | | | |
| 27 | F12 2 | | | | | | | | F8 2 | | | | | | |
| 28 | | | | | | | | | C12 10 | C28 10 | | | | | |
| 29 | E10 12 | | | | | | | | | | | | | | |
| 30 | C8 10 | | | C17 10 | | | | | | | | | | | |

| | |
|----|----------------------------------------------------------------------------|
| Fi | Fuel Assembly Designation (Hi and Ji are fresh fuel assemblies in Cycle 8) |
| N | Fuel Type (Types 4 and 5 are fresh fuel assemblies in Cycle 8) |

Figure 3-5. LS1 Cycle 8 Fuel Assembly Identification, Location, and Type

Table 3-8. LS1 Fuel Assembly Location in Core for Cycles 4-8

| SAS2H ID | Initial Insertion | Fuel Type | Cycle 4 i | Cycle 4 j | Cycle 5 i | Cycle 5 j | Cycle 6 i | Cycle 6 j | Cycle 7 i | Cycle 7 j | Cycle 8 i | Cycle 8 j |
|----------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| A1 | Cycle 4 | 9 | 18 | 19 | 20 | 27 | 20 | 26 | 21 | 29 | | |
| A2 | Cycle 4 | 9 | 26 | 19 | 28 | 17 | 28 | 17 | 24 | 26 | | |
| A3 | Cycle 4 | 9 | 22 | 24 | 22 | 24 | 16 | 24 | 22 | 28 | | |
| A4 | Cycle 4 | 9 | 21 | 16 | 27 | 21 | 16 | 26 | 22 | 26 | | |
| A5 | Cycle 4 | 9 | 18 | 23 | 17 | 23 | 20 | 23 | 17 | 30 | | |
| A6 | Cycle 4 | 9 | 21 | 25 | 16 | 28 | 16 | 28 | 18 | 26 | | |
| A7 | Cycle 4 | 9 | 18 | 21 | 18 | 20 | 24 | 25 | 22 | 29 | | |
| A8 | Cycle 4 | 9 | 21 | 23 | 21 | 25 | 19 | 24 | 19 | 30 | | |
| A9 | Cycle 4 | 9 | 20 | 21 | 20 | 22 | 18 | 26 | 23 | 28 | | |
| A10 | Cycle 4 | 9 | 18 | 25 | 19 | 26 | 18 | 24 | 25 | 26 | | |
| A11 | Cycle 4 | 9 | 16 | 25 | 23 | 26 | 19 | 23 | 16 | 30 | | |
| A12 | Cycle 4 | 9 | 16 | 17 | 23 | 24 | 17 | 25 | 18 | 30 | | |
| B1 | Cycle 4 | 8 | 21 | 22 | 18 | 24 | 16 | 19 | 25 | 27 | | |
| B2 | Cycle 4 | 8 | 24 | 17 | 27 | 22 | 23 | 23 | 18 | 18 | | |
| B3 | Cycle 4 | 8 | 26 | 17 | 26 | 18 | 18 | 22 | 21 | 30 | | |
| B4 | Cycle 4 | 8 | 22 | 22 | 21 | 21 | 21 | 21 | 23 | 29 | | |
| B5 | Cycle 4 | 8 | 22 | 25 | 16 | 26 | 19 | 20 | 24 | 28 | | |
| B6 | Cycle 4 | 8 | 20 | 25 | 16 | 18 | 16 | 16 | 26 | 26 | | |
| B7 | Cycle 4 | 8 | 19 | 22 | 24 | 25 | 16 | 22 | 20 | 30 | | |
| B8 | Cycle 4 | 8 | 17 | 22 | 17 | 19 | 21 | 25 | 25 | 28 | | |
| B9 | Cycle 4 | 8 | 17 | 18 | 16 | 22 | 17 | 21 | 22 | 30 | | |
| B10 | Cycle 4 | 8 | 17 | 24 | 22 | 27 | 19 | 19 | 17 | 17 | | |

Table 3-8. LS1 Fuel Assembly Location in Core for 4-8 (Continued)

| SAS2H ID | Initial Insertion | Fuel Type | Cycle 4 i | Cycle 4 j | Cycle 5 i | Cycle 5 j | Cycle 6 i | Cycle 6 j | Cycle 7 i | Cycle 7 j | Cycle 8 i | Cycle 8 j |
|----------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| C1 | Cycle 5 | 10 | | | 26 | 21 | 23 | 24 | 20 | 25 | 22 | 30 |
| C2 | Cycle 5 | 10 | | | 25 | 19 | 28 | 19 | 24 | 24 | 18 | 30 |
| C3 | Cycle 5 | 10 | | | 24 | 21 | 28 | 21 | 23 | 21 | 24 | 28 |
| C4 | Cycle 5 | 10 | | | 23 | 22 | 27 | 21 | 27 | 23 | 16 | 30 |
| C5 | Cycle 5 | 10 | | | 23 | 25 | 18 | 28 | 16 | 20 | 17 | 30 |
| C6 | Cycle 5 | 10 | | | 22 | 17 | 17 | 19 | 18 | 22 | | |
| C7 | Cycle 5 | 10 | | | 22 | 21 | 24 | 20 | 17 | 21 | | |
| C8 | Cycle 5 | 10 | | | 22 | 23 | 21 | 27 | 23 | 27 | 30 | 16 |
| C9 | Cycle 5 | 10 | | | 22 | 25 | 19 | 21 | 20 | 27 | 26 | 26 |
| C10 | Cycle 5 | 10 | | | 21 | 18 | 17 | 23 | 20 | 20 | | |
| C11 | Cycle 5 | 10 | | | 21 | 20 | 20 | 20 | 21 | 21 | | |
| C12 | Cycle 5 | 10 | | | 21 | 24 | 21 | 28 | 21 | 23 | 28 | 24 |
| C13 | Cycle 5 | 10 | | | 20 | 21 | 24 | 24 | 22 | 22 | | |
| C14 | Cycle 5 | 10 | | | 20 | 26 | 16 | 27 | 24 | 27 | 21 | 26 |
| C15 | Cycle 5 | 10 | | | 19 | 18 | 24 | 22 | 19 | 24 | | |
| C16 | Cycle 5 | 10 | | | 19 | 22 | 18 | 20 | 19 | 27 | | |
| C17 | Cycle 5 | 10 | | | 19 | 25 | 19 | 28 | 16 | 16 | 30 | 19 |
| C18 | Cycle 5 | 10 | | | 18 | 21 | 23 | 17 | 19 | 19 | | |
| C19 | Cycle 5 | 10 | | | 18 | 23 | 23 | 27 | 16 | 19 | 19 | 30 |
| C20 | Cycle 5 | 10 | | | 18 | 25 | 16 | 18 | 16 | 24 | | |
| C21 | Cycle 5 | 10 | | | 18 | 27 | 19 | 27 | 20 | 29 | 25 | 26 |
| C22 | Cycle 5 | 10 | | | 17 | 16 | 26 | 22 | 24 | 23 | 25 | 28 |
| C23 | Cycle 5 | 10 | | | 17 | 18 | 21 | 23 | 17 | 25 | | |
| C24 | Cycle 5 | 10 | | | 17 | 20 | 19 | 25 | 20 | 23 | | |
| C25 | Cycle 5 | 10 | | | 17 | 24 | 23 | 26 | 16 | 23 | 21 | 30 |
| C26 | Cycle 5 | 10 | | | 17 | 26 | 16 | 23 | 17 | 28 | 23 | 29 |
| C27 | Cycle 5 | 10 | | | 17 | 27 | 22 | 27 | 18 | 20 | 25 | 27 |
| C28 | Cycle 5 | 10 | | | 16 | 17 | 22 | 26 | 23 | 24 | 28 | 25 |
| C29 | Cycle 5 | 10 | | | 16 | 21 | 16 | 20 | 16 | 29 | 20 | 30 |
| C30 | Cycle 5 | 10 | | | 16 | 25 | 20 | 22 | 16 | 26 | | |

Table 3-8. LS1 Fuel Assembly Location in Core for Cycles 4-8 (Continued)

| SAS2H ID | Initial Insertion | Fuel Type | Cycle 4 i | Cycle 4 j | Cycle 5 i | Cycle 5 j | Cycle 6 i | Cycle 6 j | Cycle 7 i | Cycle 7 j | Cycle 8 i | Cycle 8 j |
|----------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| D1 | Cycle 6 | 11 | | | | | 26 | 21 | 18 | 16 | 24 | 24 |
| D2 | Cycle 6 | 11 | | | | | 25 | 18 | 28 | 20 | 19 | 20 |
| D3 | Cycle 6 | 11 | | | | | 25 | 23 | 19 | 17 | 19 | 23 |
| D4 | Cycle 6 | 11 | | | | | 24 | 17 | 26 | 23 | 16 | 16 |
| D5 | Cycle 6 | 11 | | | | | 23 | 25 | 17 | 19 | 23 | 19 |
| D6 | Cycle 6 | 11 | | | | | 22 | 25 | 23 | 25 | 20 | 28 |
| D7 | Cycle 6 | 11 | | | | | 21 | 22 | 16 | 28 | 18 | 29 |
| D8 | Cycle 6 | 11 | | | | | 21 | 26 | 16 | 18 | 22 | 22 |
| D9 | Cycle 6 | 11 | | | | | 20 | 25 | 18 | 24 | 20 | 29 |
| D10 | Cycle 6 | 11 | | | | | 20 | 27 | 16 | 22 | 16 | 28 |
| D11 | Cycle 6 | 11 | | | | | 19 | 26 | 18 | 29 | 20 | 23 |
| D12 | Cycle 6 | 11 | | | | | 18 | 17 | 25 | 25 | 19 | 19 |
| D13 | Cycle 6 | 11 | | | | | 18 | 23 | 22 | 27 | 16 | 19 |
| D14 | Cycle 6 | 11 | | | | | 18 | 25 | 20 | 28 | 20 | 19 |
| D15 | Cycle 6 | 11 | | | | | 18 | 27 | 21 | 27 | 16 | 24 |
| D16 | Cycle 6 | 11 | | | | | 17 | 18 | 23 | 23 | 17 | 17 |
| D17 | Cycle 6 | 11 | | | | | 17 | 22 | 19 | 28 | 23 | 24 |
| D18 | Cycle 6 | 11 | | | | | 17 | 24 | 23 | 26 | 23 | 23 |
| D19 | Cycle 6 | 11 | | | | | 17 | 26 | 18 | 28 | 19 | 28 |
| D20 | Cycle 6 | 11 | | | | | 17 | 27 | 22 | 24 | 20 | 27 |
| D21 | Cycle 6 | 11 | | | | | 16 | 21 | 19 | 23 | 19 | 29 |
| E1 | Cycle 6 | 12 | | | | | 25 | 16 | 20 | 24 | 17 | 29 |
| E2 | Cycle 6 | 12 | | | | | 23 | 22 | 28 | 21 | 19 | 24 |
| E3 | Cycle 6 | 12 | | | | | 22 | 19 | 19 | 21 | 22 | 29 |
| E4 | Cycle 6 | 12 | | | | | 22 | 23 | 21 | 28 | 24 | 19 |
| E5 | Cycle 6 | 12 | | | | | 21 | 18 | 22 | 20 | 16 | 29 |
| E6 | Cycle 6 | 12 | | | | | 21 | 24 | 19 | 29 | 16 | 20 |
| E7 | Cycle 6 | 12 | | | | | 20 | 17 | 25 | 24 | 17 | 25 |
| E8 | Cycle 6 | 12 | | | | | 20 | 21 | 17 | 23 | 21 | 29 |
| E9 | Cycle 6 | 12 | | | | | 18 | 19 | 17 | 29 | 16 | 23 |
| E10 | Cycle 6 | 12 | | | | | 18 | 21 | 20 | 22 | 29 | 16 |
| E11 | Cycle 6 | 12 | | | | | 17 | 20 | 24 | 25 | 25 | 17 |
| E12 | Cycle 6 | 12 | | | | | 16 | 17 | 19 | 20 | 23 | 28 |

Table 3-8. LS1 Fuel Assembly Location in Core for Cycles 4-8 (Continued)

| SAS2H ID | Initial Insertion | Fuel Type | Cycle 4 i | Cycle 4 j | Cycle 5 i | Cycle 5 j | Cycle 6 i | Cycle 6 j | Cycle 7 i | Cycle 7 j | Cycle 8 i | Cycle 8 j |
|-------------|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| D1 | Cycle 6 | 11 | | | | | 26 | 21 | 18 | 16 | 24 | 24 |
| D2 | Cycle 6 | 11 | | | | | 25 | 18 | 28 | 20 | 19 | 20 |
| D3 | Cycle 6 | 11 | | | | | 25 | 23 | 19 | 17 | 19 | 23 |
| D4 | Cycle 6 | 11 | | | | | 24 | 17 | 26 | 23 | 16 | 16 |
| D5 | Cycle 6 | 11 | | | | | 23 | 25 | 17 | 19 | 23 | 19 |
| D6 | Cycle 6 | 11 | | | | | 22 | 25 | 23 | 25 | 20 | 28 |
| D7 | Cycle 6 | 11 | | | | | 21 | 22 | 16 | 28 | 18 | 29 |
| D8 | Cycle 6 | 11 | | | | | 21 | 26 | 16 | 18 | 22 | 22 |
| D9 | Cycle 6 | 11 | | | | | 20 | 25 | 18 | 24 | 20 | 29 |
| D10 | Cycle 6 | 11 | | | | | 20 | 27 | 16 | 22 | 16 | 28 |
| D11 | Cycle 6 | 11 | | | | | 19 | 26 | 18 | 29 | 20 | 23 |
| D12 | Cycle 6 | 11 | | | | | 18 | 17 | 25 | 25 | 19 | 19 |
| D13 | Cycle 6 | 11 | | | | | 18 | 23 | 22 | 27 | 16 | 19 |
| D14 | Cycle 6 | 11 | | | | | 18 | 25 | 20 | 28 | 20 | 19 |
| D15 | Cycle 6 | 11 | | | | | 18 | 27 | 21 | 27 | 16 | 24 |
| D16 | Cycle 6 | 11 | | | | | 17 | 18 | 23 | 23 | 17 | 17 |
| D17 | Cycle 6 | 11 | | | | | 17 | 22 | 19 | 28 | 23 | 24 |
| D18 | Cycle 6 | 11 | | | | | 17 | 24 | 23 | 26 | 23 | 23 |
| D19 | Cycle 6 | 11 | | | | | 17 | 26 | 18 | 28 | 19 | 28 |
| D20 | Cycle 6 | 11 | | | | | 17 | 27 | 22 | 24 | 20 | 27 |
| D21 | Cycle 6 | 11 | | | | | 16 | 21 | 19 | 23 | 19 | 29 |
| E1 | Cycle 6 | 12 | | | | | 25 | 16 | 20 | 24 | 17 | 29 |
| E2 | Cycle 6 | 12 | | | | | 23 | 22 | 28 | 21 | 19 | 24 |
| E3 | Cycle 6 | 12 | | | | | 22 | 19 | 19 | 21 | 22 | 29 |
| E4 | Cycle 6 | 12 | | | | | 22 | 23 | 21 | 28 | 24 | 19 |
| E5 | Cycle 6 | 12 | | | | | 21 | 18 | 22 | 20 | 16 | 29 |
| E6 | Cycle 6 | 12 | | | | | 21 | 24 | 19 | 29 | 16 | 20 |
| E7 | Cycle 6 | 12 | | | | | 20 | 17 | 25 | 24 | 17 | 25 |
| E8 | Cycle 6 | 12 | | | | | 20 | 21 | 17 | 23 | 21 | 29 |
| E9 | Cycle 6 | 12 | | | | | 18 | 19 | 17 | 29 | 16 | 23 |
| E10 | Cycle 6 | 12 | | | | | 18 | 21 | 20 | 22 | 29 | 16 |
| E11 | Cycle 6 | 12 | | | | | 17 | 20 | 24 | 25 | 25 | 17 |
| E12 | Cycle 6 | 12 | | | | | 16 | 17 | 19 | 20 | 23 | 28 |

Table 3-8. LS1 Fuel Assembly Location in Core for Cycles 4-8 (Continued)

| SAS2H ID | Initial Insertion | Fuel Type | Cycle 4 i | Cycle 4 j | Cycle 5 i | Cycle 5 j | Cycle 6 i | Cycle 6 j | Cycle 7 i | Cycle 7 j | Cycle 8 i | Cycle 8 j |
|----------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| F1 | Cycle 7 | 2 | | | | | | | 27 | 16 | 17 | 23 |
| F2 | Cycle 7 | 2 | | | | | | | 26 | 19 | 16 | 27 |
| F3 | Cycle 7 | 2 | | | | | | | 26 | 21 | 16 | 18 |
| F4 | Cycle 7 | 2 | | | | | | | 25 | 18 | 18 | 18 |
| F5 | Cycle 7 | 2 | | | | | | | 22 | 21 | 24 | 27 |
| F6 | Cycle 7 | 2 | | | | | | | 22 | 23 | 16 | 26 |
| F7 | Cycle 7 | 2 | | | | | | | 22 | 25 | 17 | 21 |
| F8 | Cycle 7 | 2 | | | | | | | 21 | 22 | 27 | 24 |
| F9 | Cycle 7 | 2 | | | | | | | 21 | 24 | 21 | 28 |
| F10 | Cycle 7 | 2 | | | | | | | 21 | 26 | 18 | 16 |
| F11 | Cycle 7 | 2 | | | | | | | 20 | 26 | 24 | 25 |
| F12 | Cycle 7 | 2 | | | | | | | 19 | 26 | 27 | 16 |
| F13 | Cycle 7 | 2 | | | | | | | 18 | 25 | 25 | 25 |
| F14 | Cycle 7 | 2 | | | | | | | 18 | 27 | 18 | 22 |
| F15 | Cycle 7 | 2 | | | | | | | 17 | 26 | 18 | 28 |
| F16 | Cycle 7 | 2 | | | | | | | 17 | 27 | 18 | 26 |
| F17 | Cycle 7 | 2 | | | | | | | 16 | 25 | 16 | 22 |
| F18 | Cycle 7 | 2 | | | | | | | 16 | 27 | 23 | 17 |
| G1 | Cycle 7 | 1 | | | | | | | 23 | 18 | 20 | 20 |
| G2 | Cycle 7 | 1 | | | | | | | 21 | 25 | 22 | 25 |
| G3 | Cycle 7 | 1 | | | | | | | 20 | 21 | 20 | 24 |
| G4 | Cycle 7 | 1 | | | | | | | 19 | 18 | 21 | 23 |
| G5 | Cycle 7 | 1 | | | | | | | 19 | 22 | 19 | 25 |
| G6 | Cycle 7 | 1 | | | | | | | 19 | 25 | 20 | 22 |
| G7 | Cycle 7 | 1 | | | | | | | 18 | 17 | 17 | 19 |
| G8 | Cycle 7 | 1 | | | | | | | 18 | 19 | 23 | 21 |
| G9 | Cycle 7 | 1 | | | | | | | 18 | 21 | 19 | 27 |
| G10 | Cycle 7 | 1 | | | | | | | 18 | 23 | 21 | 21 |
| G11 | Cycle 7 | 1 | | | | | | | 17 | 18 | 19 | 17 |
| G12 | Cycle 7 | 1 | | | | | | | 17 | 20 | 18 | 20 |
| G13 | Cycle 7 | 1 | | | | | | | 17 | 22 | 24 | 26 |
| G14 | Cycle 7 | 1 | | | | | | | 17 | 24 | 18 | 24 |
| G15 | Cycle 7 | 1 | | | | | | | 16 | 17 | 19 | 21 |
| G16 | Cycle 7 | 1 | | | | | | | 16 | 21 | 22 | 28 |

Table 3-8. Fuel Assembly Location in Core for LS1 Cycles 4-8 (Continued)

| SAS2H ID | Initial Insertion | Fuel Type | Cycle 4 i | Cycle 4 j | Cycle 5 i | Cycle 5 j | Cycle 6 i | Cycle 6 j | Cycle 7 i | Cycle 7 j | Cycle 8 i | Cycle 8 j |
|----------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| H1 | Cycle 8 | 5 | | | | | | | | | 20 | 26 |
| H2 | Cycle 8 | 5 | | | | | | | | | 21 | 25 |
| H3 | Cycle 8 | 5 | | | | | | | | | 22 | 27 |
| H4 | Cycle 8 | 5 | | | | | | | | | 23 | 27 |
| H5 | Cycle 8 | 5 | | | | | | | | | 21 | 22 |
| H6 | Cycle 8 | 5 | | | | | | | | | 17 | 27 |
| H7 | Cycle 8 | 5 | | | | | | | | | 17 | 28 |
| H8 | Cycle 8 | 5 | | | | | | | | | 23 | 25 |
| H9 | Cycle 8 | 5 | | | | | | | | | 18 | 19 |
| H10 | Cycle 8 | 5 | | | | | | | | | 17 | 24 |
| H11 | Cycle 8 | 5 | | | | | | | | | 21 | 27 |
| H12 | Cycle 8 | 5 | | | | | | | | | 18 | 27 |
| H13 | Cycle 8 | 5 | | | | | | | | | 22 | 24 |
| H14 | Cycle 8 | 5 | | | | | | | | | 23 | 26 |
| H15 | Cycle 8 | 5 | | | | | | | | | 19 | 26 |
| H16 | Cycle 8 | 5 | | | | | | | | | 18 | 25 |
| H17 | Cycle 8 | 5 | | | | | | | | | 22 | 26 |
| H18 | Cycle 8 | 5 | | | | | | | | | 16 | 17 |
| J1 | Cycle 8 | 4 | | | | | | | | | 21 | 24 |
| J2 | Cycle 8 | 4 | | | | | | | | | 19 | 22 |
| J3 | Cycle 8 | 4 | | | | | | | | | 22 | 23 |
| J4 | Cycle 8 | 4 | | | | | | | | | 17 | 22 |
| J5 | Cycle 8 | 4 | | | | | | | | | 16 | 21 |
| J6 | Cycle 8 | 4 | | | | | | | | | 17 | 18 |
| J7 | Cycle 8 | 4 | | | | | | | | | 20 | 25 |
| J8 | Cycle 8 | 4 | | | | | | | | | 18 | 21 |
| J9 | Cycle 8 | 4 | | | | | | | | | 18 | 23 |
| J10 | Cycle 8 | 4 | | | | | | | | | 17 | 26 |
| J11 | Cycle 8 | 4 | | | | | | | | | 16 | 25 |
| J12 | Cycle 8 | 4 | | | | | | | | | 17 | 20 |
| J13 | Cycle 8 | 4 | | | | | | | | | 20 | 21 |

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 blade 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. 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 4-2 through 4-151 provide the 25-node axial burnup profiles and Tables 4-152 through 4-301 provide the 10-node axial burnup profiles for each assembly at each datapoint or statepoint along with axial fuel temperature and moderator density (specific gravity) (sp. gr.). Table 4-302 provides the uranium mass for the collapsed node format. The statepoint evaluations for LS1 occur at the beginning of Cycle 7 (0 EFPD), at two restarts during Cycle 7, at the beginning of Cycle 8 (0 EFPD), and one restart during Cycle 8. The modeling of the fuel assemblies requires the operating history from the time the fuel was initially inserted into the core. These data are provided as datapoints and statepoints for Cycles 4 through 8.

Control blade insertion time (by axial nodes) for each assembly with a control blade inserted during core operation is provided in Tables 4-304 through 4-308. The fuel assemblies that are exposed to control blades and the applicable control blade group are listed in Tables 4-303.

Table 4-1. LS1 Axial Nodes Spacing for Burnup Calculations

| <u>Axial Node</u> | <u>10 Node Spacing (cm)</u> | <u>25 Node Spacing (cm)</u> |
|-------------------|-----------------------------|-----------------------------|
| 1 bottom | 15.24 | 15.24 |
| 2 | 45.72 | 15.24 |
| 3 | 60.96 | 15.24 |
| 4 | 45.72 | 15.24 |
| 5 | 45.72 | 15.24 |
| 6 | 45.72 | 15.24 |
| 7 | 45.72 | 15.24 |
| 8 | 45.72 | 15.24 |
| 9 | 15.24 | 15.24 |
| 10 ¹ | 15.24 | 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 | | 15.24 |
| 25 top | | 15.24 |

¹ Top node for 10 node fuel assembly.

Table 4-2. LS1 Burnup and TH Feedback Parameters Assembly A1

| Node No. | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|-------------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.138 | 625.7 | 0.7396 | 2.348 | 648.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.882 | 808.7 | 0.7396 | 8.028 | 910.7 | 0.7396 |
| 3 | 0.000 | | 0.7295 | 5.431 | 873.4 | 0.7385 | 11.389 | 1028.6 | 0.7300 |
| 4 | 0.000 | Data | 0.6652 | 6.596 | 959.5 | 0.7073 | 13.657 | 1151.3 | 0.6878 |
| 5 | 0.000 | Not | 0.5953 | 7.393 | 1023.7 | 0.6611 | 14.846 | 1198.5 | 0.6317 |
| 6 | 0.000 | Required | 0.5311 | 7.934 | 1069.8 | 0.6055 | 15.429 | 1203.7 | 0.5716 |
| 7 | 0.000 | | 0.4777 | 8.297 | 1102.1 | 0.5482 | 15.728 | 1195.8 | 0.5150 |
| 8 | 0.000 | | 0.4342 | 8.561 | 1126.1 | 0.4956 | 15.928 | 1188.0 | 0.4656 |
| 9 | 0.000 | | 0.3979 | 8.999 | 1167.3 | 0.4496 | 16.474 | 1201.2 | 0.4234 |
| 10 | 0.000 | | 0.3675 | 9.018 | 1169.1 | 0.4103 | 16.436 | 1194.2 | 0.3871 |
| 11 | 0.000 | | 0.3424 | 8.907 | 1158.5 | 0.3773 | 16.276 | 1188.2 | 0.3565 |
| 12 | 0.000 | | 0.3213 | 8.724 | 1141.3 | 0.3495 | 16.062 | 1184.5 | 0.3303 |
| 13 | 0.000 | | 0.3038 | 8.516 | 1122.0 | 0.3259 | 15.853 | 1184.4 | 0.3079 |
| 14 | 0.000 | | 0.2889 | 8.285 | 1101.0 | 0.3057 | 15.614 | 1183.4 | 0.2885 |
| 15 | 0.000 | | 0.2761 | 8.022 | 1077.6 | 0.2884 | 15.284 | 1175.3 | 0.2716 |
| 16 | 0.000 | | 0.2654 | 7.713 | 1050.7 | 0.2734 | 14.806 | 1155.1 | 0.2569 |
| 17 | 0.000 | | 0.2562 | 7.347 | 1019.8 | 0.2604 | 14.167 | 1123.2 | 0.2441 |
| 18 | 0.000 | | 0.2486 | 6.769 | 973.1 | 0.2492 | 13.147 | 1073.6 | 0.2329 |
| 19 | 0.000 | | 0.2422 | 6.411 | 945.3 | 0.2396 | 12.425 | 1034.4 | 0.2234 |
| 20 | 0.000 | | 0.2363 | 6.080 | 920.3 | 0.2310 | 11.727 | 996.5 | 0.2152 |
| 21 | 0.000 | | 0.2313 | 5.679 | 891.0 | 0.2234 | 10.888 | 953.2 | 0.2079 |
| 22 | 0.000 | | 0.2269 | 5.048 | 846.9 | 0.2168 | 9.625 | 894.3 | 0.2017 |
| 23 | 0.000 | | 0.2233 | 4.348 | 800.7 | 0.2114 | 8.201 | 831.5 | 0.1967 |
| 24 | 0.000 | | 0.2211 | 2.032 | 665.1 | 0.2074 | 3.882 | 680.4 | 0.1930 |
| 25 | 0.000 | | 0.2199 | 1.275 | 625.7 | 0.2057 | 2.411 | 633.2 | 0.1915 |
| Node No. | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 3.826 | 634.7 | 0.7396 | 4.920 | 617.6 | 0.7396 | 6.576 | 663.9 | 0.7396 |
| 2 | 13.395 | 869.4 | 0.7396 | 17.236 | 782.1 | 0.7396 | 22.686 | 962.5 | 0.7396 |
| 3 | 18.633 | 937.5 | 0.7312 | 23.444 | 804.5 | 0.7340 | 30.112 | 998.9 | 0.7323 |
| 4 | 21.649 | 988.3 | 0.6911 | 26.886 | 830.1 | 0.6978 | 33.939 | 1032.8 | 0.6951 |
| 5 | 23.043 | 1002.7 | 0.6380 | 28.504 | 843.9 | 0.6496 | 35.584 | 1035.2 | 0.6465 |
| 6 | 23.656 | 1004.8 | 0.5810 | 29.299 | 855.3 | 0.5975 | 36.277 | 1026.1 | 0.5944 |
| 7 | 23.957 | 1005.0 | 0.5268 | 29.784 | 866.9 | 0.5474 | 36.650 | 1016.2 | 0.5446 |
| 8 | 24.185 | 1007.0 | 0.4791 | 30.207 | 879.5 | 0.5025 | 37.014 | 1011.0 | 0.5002 |
| 9 | 24.915 | 1020.2 | 0.4379 | 31.236 | 899.1 | 0.4628 | 38.121 | 1017.8 | 0.4611 |
| 10 | 24.896 | 1021.6 | 0.4024 | 31.403 | 911.5 | 0.4282 | 38.233 | 1013.0 | 0.4270 |
| 11 | 24.710 | 1019.7 | 0.3722 | 31.380 | 922.6 | 0.3983 | 38.108 | 1004.1 | 0.3976 |
| 12 | 24.432 | 1015.1 | 0.3462 | 31.251 | 932.8 | 0.3724 | 37.849 | 992.9 | 0.3720 |
| 13 | 24.126 | 1008.1 | 0.3237 | 31.082 | 942.3 | 0.3496 | 37.534 | 980.5 | 0.3496 |
| 14 | 23.763 | 999.3 | 0.3042 | 30.845 | 951.2 | 0.3296 | 37.141 | 967.4 | 0.3299 |
| 15 | 23.299 | 989.9 | 0.2872 | 30.492 | 959.0 | 0.3121 | 36.621 | 953.5 | 0.3127 |
| 16 | 22.702 | 981.6 | 0.2728 | 29.986 | 965.5 | 0.2970 | 35.922 | 937.8 | 0.2977 |
| 17 | 21.853 | 967.1 | 0.2598 | 29.201 | 970.1 | 0.2835 | 34.912 | 919.9 | 0.2844 |
| 18 | 20.536 | 947.1 | 0.2486 | 27.910 | 972.0 | 0.2719 | 33.376 | 900.7 | 0.2728 |
| 19 | 19.401 | 920.0 | 0.2385 | 26.667 | 964.2 | 0.2612 | 31.883 | 881.7 | 0.2622 |
| 20 | 18.177 | 886.6 | 0.2296 | 25.180 | 945.6 | 0.2514 | 30.135 | 862.2 | 0.2526 |
| 21 | 16.606 | 842.3 | 0.2216 | 23.027 | 905.8 | 0.2423 | 27.556 | 831.4 | 0.2438 |
| 22 | 14.487 | 793.5 | 0.2149 | 20.203 | 859.9 | 0.2349 | 24.198 | 794.4 | 0.2365 |
| 23 | 12.076 | 740.7 | 0.2092 | 16.805 | 799.7 | 0.2285 | 20.054 | 745.5 | 0.2301 |
| 24 | 5.618 | 637.8 | 0.2051 | 7.729 | 659.9 | 0.2235 | 9.205 | 640.8 | 0.2254 |
| 25 | 3.403 | 605.1 | 0.2029 | 4.588 | 616.2 | 0.2201 | 5.417 | 606.0 | 0.2222 |

Table 4-2. LS1 Burnup and TH Feedback Parameters Assembly A1 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 7.566 | 661.5 | 0.7396 | 8.240 | 601.5 | 0.7396 | 8.517 | 588.9 | 0.7396 |
| 2 | 25.773 | 926.0 | 0.7396 | 27.765 | 688.7 | 0.7396 | 28.555 | 644.7 | 0.7396 |
| 3 | 33.818 | 947.9 | 0.7321 | 36.156 | 691.9 | 0.7336 | 37.071 | 646.6 | 0.7342 |
| 4 | 37.820 | 971.6 | 0.6952 | 40.333 | 702.5 | 0.6988 | 41.312 | 652.7 | 0.7001 |
| 5 | 39.475 | 972.9 | 0.6470 | 42.177 | 714.1 | 0.6536 | 43.233 | 660.2 | 0.6561 |
| 6 | 40.130 | 967.7 | 0.5955 | 43.046 | 727.4 | 0.6054 | 44.199 | 669.7 | 0.6092 |
| 7 | 40.458 | 961.6 | 0.5461 | 43.588 | 741.0 | 0.5593 | 44.847 | 680.3 | 0.5647 |
| 8 | 40.795 | 958.0 | 0.5020 | 44.121 | 753.6 | 0.5178 | 45.491 | 691.5 | 0.5247 |
| 9 | 41.940 | 963.1 | 0.4631 | 45.476 | 767.4 | 0.4808 | 46.974 | 704.7 | 0.4890 |
| 10 | 42.039 | 961.3 | 0.4292 | 45.699 | 775.7 | 0.4482 | 47.300 | 715.4 | 0.4576 |
| 11 | 41.893 | 958.5 | 0.3999 | 45.637 | 781.3 | 0.4196 | 47.332 | 725.4 | 0.4300 |
| 12 | 41.612 | 955.5 | 0.3743 | 45.403 | 784.5 | 0.3942 | 47.184 | 734.6 | 0.4054 |
| 13 | 41.273 | 952.3 | 0.3521 | 45.076 | 785.3 | 0.3717 | 46.936 | 743.2 | 0.3834 |
| 14 | 40.855 | 949.0 | 0.3324 | 44.641 | 784.2 | 0.3516 | 46.570 | 750.8 | 0.3637 |
| 15 | 40.308 | 945.4 | 0.3151 | 44.052 | 781.3 | 0.3337 | 46.036 | 756.8 | 0.3460 |
| 16 | 39.576 | 941.0 | 0.3001 | 43.254 | 776.9 | 0.3181 | 45.281 | 761.6 | 0.3305 |
| 17 | 38.519 | 934.8 | 0.2867 | 42.113 | 771.3 | 0.3043 | 44.169 | 764.9 | 0.3166 |
| 18 | 36.919 | 926.4 | 0.2751 | 40.419 | 765.0 | 0.2923 | 42.491 | 766.7 | 0.3047 |
| 19 | 35.329 | 913.9 | 0.2644 | 38.692 | 756.0 | 0.2812 | 40.746 | 764.7 | 0.2934 |
| 20 | 33.444 | 896.5 | 0.2547 | 36.623 | 744.1 | 0.2711 | 38.623 | 758.6 | 0.2832 |
| 21 | 30.600 | 863.9 | 0.2458 | 33.475 | 724.8 | 0.2617 | 35.337 | 743.4 | 0.2736 |
| 22 | 26.898 | 823.3 | 0.2386 | 29.415 | 702.7 | 0.2541 | 31.091 | 723.3 | 0.2659 |
| 23 | 22.258 | 768.4 | 0.2322 | 24.256 | 671.9 | 0.2470 | 25.613 | 690.2 | 0.2583 |
| 24 | 10.220 | 651.0 | 0.2275 | 11.078 | 608.2 | 0.2414 | 11.667 | 616.0 | 0.2520 |
| 25 | 5.986 | 611.4 | 0.2243 | 6.426 | 586.0 | 0.2367 | 6.725 | 589.7 | 0.2461 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 8.841 | 580.3 | 0.7396 | | | | | | |
| 2 | 29.450 | 616.9 | 0.7396 | | | | | | |
| 3 | 38.075 | 617.5 | 0.7347 | | | | | | |
| 4 | 42.356 | 619.7 | 0.7015 | | | | | | |
| 5 | 44.332 | 622.8 | 0.6585 | | | | | | |
| 6 | 45.381 | 627.4 | 0.613 | | | | | | |
| 7 | 46.144 | 633.9 | 0.5700 | | | | | | |
| 8 | 46.922 | 641.5 | 0.5317 | | | | | | |
| 9 | 48.576 | 651.4 | 0.4977 | | | | | | |
| 10 | 49.066 | 661.0 | 0.4681 | | | | | | |
| 11 | 49.276 | 671.5 | 0.4424 | | | | | | |
| 12 | 49.317 | 682.9 | 0.4198 | | | | | | |
| 13 | 49.267 | 695.0 | 0.3998 | | | | | | |
| 14 | 49.101 | 707.4 | 0.3819 | | | | | | |
| 15 | 48.769 | 720.2 | 0.3660 | | | | | | |
| 16 | 48.211 | 732.9 | 0.3518 | | | | | | |
| 17 | 47.289 | 745.3 | 0.3393 | | | | | | |
| 18 | 45.792 | 757.4 | 0.3287 | | | | | | |
| 19 | 44.168 | 765.5 | 0.3182 | | | | | | |
| 20 | 42.083 | 768.1 | 0.3083 | | | | | | |
| 21 | 38.668 | 759.4 | 0.2988 | | | | | | |
| 22 | 34.188 | 743.8 | 0.2912 | | | | | | |
| 23 | 28.177 | 709.5 | 0.2828 | | | | | | |
| 24 | 12.789 | 624.0 | 0.2753 | | | | | | |
| 25 | 7.289 | 593.3 | 0.2666 | | | | | | |

Table 4-3. LS1 Burnup and TH Feedback Parameters Assembly A2

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.234 | 631.5 | 0.7396 | 2.242 | 633.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.201 | 832.7 | 0.7396 | 7.670 | 843.2 | 0.7396 |
| 3 | 0.000 | | 0.7327 | 5.814 | 900.8 | 0.7369 | 10.831 | 934.9 | 0.7355 |
| 4 | 0.000 | Data | 0.6718 | 6.910 | 984.3 | 0.7037 | 12.947 | 1036.9 | 0.6998 |
| 5 | 0.000 | Not | 0.6048 | 7.558 | 1037.5 | 0.6564 | 14.043 | 1085.4 | 0.6494 |
| 6 | 0.000 | Required | 0.5424 | 7.923 | 1068.9 | 0.6008 | 14.543 | 1100.5 | 0.5920 |
| 7 | 0.000 | | 0.4901 | 8.121 | 1086.3 | 0.5448 | 14.758 | 1102.4 | 0.5357 |
| 8 | 0.000 | | 0.4474 | 8.241 | 1097.0 | 0.4943 | 14.881 | 1102.7 | 0.4860 |
| 9 | 0.000 | | 0.4118 | 8.548 | 1124.9 | 0.4506 | 15.338 | 1119.8 | 0.4434 |
| 10 | 0.000 | | 0.3818 | 8.478 | 1118.5 | 0.4135 | 15.239 | 1116.5 | 0.4072 |
| 11 | 0.000 | | 0.3571 | 8.311 | 1103.3 | 0.3823 | 15.021 | 1110.6 | 0.3766 |
| 12 | 0.000 | | 0.3362 | 8.077 | 1082.4 | 0.3559 | 14.721 | 1103.2 | 0.3506 |
| 13 | 0.000 | | 0.3187 | 7.801 | 1058.3 | 0.3335 | 14.362 | 1093.8 | 0.3283 |
| 14 | 0.000 | | 0.3038 | 7.496 | 1032.3 | 0.3144 | 13.955 | 1082.5 | 0.3091 |
| 15 | 0.000 | | 0.2910 | 7.172 | 1005.4 | 0.2981 | 13.508 | 1069.0 | 0.2925 |
| 16 | 0.000 | | 0.2801 | 6.833 | 978.1 | 0.2839 | 13.019 | 1052.7 | 0.2780 |
| 17 | 0.000 | | 0.2708 | 6.460 | 949.0 | 0.2717 | 12.448 | 1031.7 | 0.2652 |
| 18 | 0.000 | | 0.2628 | 5.916 | 908.2 | 0.2611 | 11.557 | 995.9 | 0.2540 |
| 19 | 0.000 | | 0.2562 | 5.585 | 884.3 | 0.2519 | 10.975 | 970.9 | 0.2443 |
| 20 | 0.000 | | 0.2505 | 5.288 | 863.4 | 0.2438 | 10.409 | 944.8 | 0.2358 |
| 21 | 0.000 | | 0.2455 | 4.940 | 839.6 | 0.2365 | 9.707 | 911.6 | 0.2282 |
| 22 | 0.000 | | 0.2415 | 4.392 | 803.5 | 0.2302 | 8.596 | 861.3 | 0.2217 |
| 23 | 0.000 | | 0.2378 | 3.781 | 765.2 | 0.2249 | 7.330 | 806.5 | 0.2164 |
| 24 | 0.000 | | 0.2354 | 1.748 | 650.1 | 0.2213 | 3.443 | 669.9 | 0.2126 |
| 25 | 0.000 | | 0.2342 | 1.090 | 616.4 | 0.2197 | 2.117 | 626.2 | 0.2110 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 3.537 | 625.1 | 0.7396 | 4.573 | 614.5 | 0.7396 | 5.818 | 636.9 | 0.7396 |
| 2 | 12.374 | 824.8 | 0.7396 | 16.061 | 772.0 | 0.7396 | 20.227 | 850.3 | 0.7396 |
| 3 | 17.314 | 888.7 | 0.7367 | 21.967 | 795.3 | 0.7385 | 27.015 | 869.1 | 0.7388 |
| 4 | 20.193 | 937.6 | 0.7034 | 25.265 | 820.1 | 0.7082 | 30.567 | 888.2 | 0.7096 |
| 5 | 21.542 | 954.5 | 0.6566 | 26.822 | 832.7 | 0.6657 | 32.142 | 889.5 | 0.6688 |
| 6 | 22.132 | 960.6 | 0.6034 | 27.570 | 842.5 | 0.6171 | 32.850 | 886.5 | 0.6222 |
| 7 | 22.399 | 964.1 | 0.5506 | 27.998 | 852.5 | 0.5685 | 33.241 | 883.7 | 0.5754 |
| 8 | 22.578 | 967.9 | 0.5029 | 28.352 | 863.5 | 0.5239 | 33.583 | 882.8 | 0.5319 |
| 9 | 23.223 | 980.8 | 0.4612 | 29.278 | 881.6 | 0.4840 | 34.597 | 889.5 | 0.4927 |
| 10 | 23.144 | 982.2 | 0.4255 | 29.372 | 892.9 | 0.4494 | 34.681 | 888.7 | 0.4583 |
| 11 | 22.915 | 981.5 | 0.3949 | 29.299 | 903.3 | 0.4193 | 34.578 | 886.4 | 0.4283 |
| 12 | 22.573 | 978.5 | 0.3688 | 29.102 | 913.0 | 0.3933 | 34.332 | 882.7 | 0.4023 |
| 13 | 22.147 | 973.9 | 0.3462 | 28.815 | 922.4 | 0.3706 | 33.984 | 878.1 | 0.3795 |
| 14 | 21.643 | 967.3 | 0.3265 | 28.440 | 931.3 | 0.3506 | 33.543 | 873.2 | 0.3594 |
| 15 | 21.064 | 958.3 | 0.3093 | 27.971 | 938.9 | 0.3329 | 32.997 | 867.4 | 0.3417 |
| 16 | 20.398 | 946.4 | 0.2943 | 27.388 | 944.7 | 0.3173 | 32.321 | 860.6 | 0.3258 |
| 17 | 19.587 | 930.6 | 0.2810 | 26.622 | 947.9 | 0.3033 | 31.441 | 852.2 | 0.3118 |
| 18 | 18.365 | 909.2 | 0.2694 | 25.404 | 948.1 | 0.2914 | 30.103 | 843.5 | 0.2997 |
| 19 | 17.369 | 883.1 | 0.2591 | 24.286 | 939.6 | 0.2802 | 28.839 | 833.1 | 0.2884 |
| 20 | 16.304 | 852.8 | 0.2499 | 22.953 | 921.1 | 0.2700 | 27.330 | 820.7 | 0.2782 |
| 21 | 14.940 | 814.3 | 0.2416 | 21.025 | 883.6 | 0.2606 | 25.061 | 797.2 | 0.2688 |
| 22 | 13.028 | 770.0 | 0.2346 | 18.432 | 840.4 | 0.2529 | 22.041 | 768.7 | 0.2612 |
| 23 | 10.864 | 723.3 | 0.2287 | 15.318 | 783.7 | 0.2462 | 18.289 | 728.1 | 0.2543 |
| 24 | 5.032 | 631.3 | 0.2247 | 7.001 | 653.0 | 0.2412 | 8.311 | 631.8 | 0.2492 |
| 25 | 3.023 | 601.4 | 0.2224 | 4.127 | 612.5 | 0.2380 | 4.848 | 600.3 | 0.2457 |

Table 4-3. LS1 Burnup and TH Feedback Parameters Assembly A2 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 6.558 | 634.7 | 0.7396 | 7.375 | 610.5 | 0.7396 | 7.719 | 595.9 | 0.7396 |
| 2 | 22.577 | 824.0 | 0.7396 | 25.121 | 728.2 | 0.7396 | 26.154 | 672.5 | 0.7396 |
| 3 | 29.799 | 833.0 | 0.7391 | 32.843 | 765.5 | 0.7396 | 34.061 | 694.4 | 0.7396 |
| 4 | 33.457 | 845.5 | 0.7106 | 36.735 | 750.5 | 0.7138 | 38.042 | 685.1 | 0.7152 |
| 5 | 35.040 | 846.4 | 0.6709 | 38.524 | 764.0 | 0.6767 | 39.918 | 694.0 | 0.6793 |
| 6 | 35.742 | 845.7 | 0.6256 | 39.446 | 778.6 | 0.6342 | 40.942 | 704.5 | 0.6384 |
| 7 | 36.136 | 846.1 | 0.5800 | 40.061 | 793.6 | 0.5911 | 41.665 | 715.7 | 0.5969 |
| 8 | 36.495 | 848.1 | 0.5373 | 40.642 | 809.0 | 0.5505 | 42.346 | 726.3 | 0.5577 |
| 9 | 37.578 | 856.3 | 0.4986 | 41.995 | 828.1 | 0.5130 | 43.816 | 738.9 | 0.5213 |
| 10 | 37.683 | 858.8 | 0.4645 | 42.276 | 840.9 | 0.4795 | 44.177 | 747.7 | 0.4886 |
| 11 | 37.594 | 860.5 | 0.4347 | 42.314 | 850.2 | 0.4497 | 44.284 | 755.3 | 0.4594 |
| 12 | 37.360 | 861.9 | 0.4087 | 42.158 | 855.9 | 0.4234 | 44.192 | 762.4 | 0.4334 |
| 13 | 37.017 | 862.5 | 0.3858 | 41.848 | 858.4 | 0.4000 | 43.942 | 769.2 | 0.4103 |
| 14 | 36.579 | 862.9 | 0.3656 | 41.400 | 857.6 | 0.3793 | 43.551 | 775.6 | 0.3896 |
| 15 | 36.031 | 862.6 | 0.3478 | 40.806 | 854.2 | 0.3608 | 43.010 | 781.7 | 0.3711 |
| 16 | 35.342 | 861.1 | 0.3318 | 40.040 | 848.5 | 0.3443 | 42.287 | 786.7 | 0.3545 |
| 17 | 34.434 | 857.7 | 0.3177 | 39.026 | 840.8 | 0.3296 | 41.306 | 790.5 | 0.3397 |
| 18 | 33.058 | 853.2 | 0.3055 | 37.523 | 831.6 | 0.3170 | 39.834 | 794.1 | 0.3271 |
| 19 | 31.727 | 845.2 | 0.2941 | 36.010 | 818.6 | 0.3051 | 38.327 | 794.8 | 0.3151 |
| 20 | 30.121 | 833.9 | 0.2837 | 34.162 | 801.6 | 0.2943 | 36.452 | 791.7 | 0.3043 |
| 21 | 27.650 | 810.7 | 0.2742 | 31.294 | 774.6 | 0.2844 | 33.462 | 777.6 | 0.2943 |
| 22 | 24.375 | 782.4 | 0.2665 | 27.556 | 744.2 | 0.2763 | 29.537 | 756.5 | 0.2861 |
| 23 | 20.226 | 740.4 | 0.2596 | 22.756 | 703.5 | 0.2690 | 24.379 | 717.7 | 0.2784 |
| 24 | 9.182 | 638.0 | 0.2544 | 10.269 | 620.6 | 0.2633 | 10.975 | 626.8 | 0.2723 |
| 25 | 5.328 | 603.7 | 0.2508 | 5.899 | 592.9 | 0.2590 | 6.263 | 595.5 | 0.2673 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 8.214 | 591.1 | 0.7396 | | | | | | |
| 2 | 27.574 | 652.1 | 0.7396 | | | | | | |
| 3 | 35.676 | 665.5 | 0.7396 | | | | | | |
| 4 | 39.714 | 655.5 | 0.7169 | | | | | | |
| 5 | 41.655 | 659.3 | 0.6824 | | | | | | |
| 6 | 42.781 | 665.3 | 0.6433 | | | | | | |
| 7 | 43.640 | 673.4 | 0.6038 | | | | | | |
| 8 | 44.479 | 682.9 | 0.5666 | | | | | | |
| 9 | 46.149 | 695.1 | 0.5322 | | | | | | |
| 10 | 46.689 | 706.3 | 0.5013 | | | | | | |
| 11 | 46.982 | 718.0 | 0.4739 | | | | | | |
| 12 | 47.082 | 730.3 | 0.4494 | | | | | | |
| 13 | 47.029 | 743.2 | 0.4275 | | | | | | |
| 14 | 46.838 | 756.4 | 0.4079 | | | | | | |
| 15 | 46.495 | 769.8 | 0.3901 | | | | | | |
| 16 | 45.968 | 783.3 | 0.3741 | | | | | | |
| 17 | 45.172 | 796.2 | 0.3596 | | | | | | |
| 18 | 43.870 | 808.3 | 0.3473 | | | | | | |
| 19 | 42.464 | 815.6 | 0.3353 | | | | | | |
| 20 | 40.600 | 816.4 | 0.3241 | | | | | | |
| 21 | 37.425 | 803.1 | 0.3136 | | | | | | |
| 22 | 33.201 | 782.1 | 0.3052 | | | | | | |
| 23 | 27.419 | 740.1 | 0.2968 | | | | | | |
| 24 | 12.325 | 636.9 | 0.2902 | | | | | | |
| 25 | 6.961 | 600.6 | 0.2837 | | | | | | |

Table 4-4. LS1 Burnup and TH Feedback Parameters Assembly A3

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.059 | 621.0 | 0.7396 | 2.091 | 634.9 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.603 | 788.2 | 0.7396 | 7.162 | 851.9 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 5.052 | 899.8 | 0.7396 | 10.279 | 1028.9 | 0.7364 |
| 4 | 0.000 | Data | 0.6954 | 6.162 | 926.4 | 0.7151 | 12.578 | 1077.8 | 0.7018 |
| 5 | 0.000 | Not | 0.6348 | 6.941 | 986.7 | 0.6748 | 13.909 | 1140.4 | 0.6523 |
| 6 | 0.000 | Required | 0.5743 | 7.478 | 1030.8 | 0.6244 | 14.593 | 1157.7 | 0.5960 |
| 7 | 0.000 | | 0.5205 | 7.833 | 1061.1 | 0.5702 | 14.928 | 1155.3 | 0.5402 |
| 8 | 0.000 | | 0.4751 | 8.079 | 1082.6 | 0.5184 | 15.131 | 1150.2 | 0.4901 |
| 9 | 0.000 | | 0.4365 | 8.478 | 1118.5 | 0.4721 | 15.647 | 1164.1 | 0.4467 |
| 10 | 0.000 | | 0.4039 | 8.455 | 1116.4 | 0.4321 | 15.556 | 1156.0 | 0.4093 |
| 11 | 0.000 | | 0.3768 | 8.296 | 1102.0 | 0.3987 | 15.311 | 1145.9 | 0.3777 |
| 12 | 0.000 | | 0.3541 | 8.057 | 1080.6 | 0.3706 | 14.975 | 1134.6 | 0.3510 |
| 13 | 0.000 | | 0.3350 | 7.768 | 1055.4 | 0.3469 | 14.577 | 1122.0 | 0.3282 |
| 14 | 0.000 | | 0.3189 | 7.449 | 1028.4 | 0.3267 | 14.134 | 1107.8 | 0.3086 |
| 15 | 0.000 | | 0.3051 | 7.109 | 1000.3 | 0.3095 | 13.648 | 1091.4 | 0.2917 |
| 16 | 0.000 | | 0.2934 | 6.749 | 971.5 | 0.2948 | 13.113 | 1072.0 | 0.2770 |
| 17 | 0.000 | | 0.2834 | 6.350 | 940.6 | 0.2820 | 12.480 | 1046.7 | 0.2641 |
| 18 | 0.000 | | 0.2749 | 5.780 | 898.3 | 0.2711 | 11.520 | 1006.0 | 0.2529 |
| 19 | 0.000 | | 0.2679 | 5.446 | 874.5 | 0.2616 | 10.901 | 977.3 | 0.2433 |
| 20 | 0.000 | | 0.2619 | 5.171 | 855.4 | 0.2532 | 10.337 | 949.1 | 0.2349 |
| 21 | 0.000 | | 0.2567 | 4.853 | 833.8 | 0.2457 | 9.648 | 914.2 | 0.2276 |
| 22 | 0.000 | | 0.2524 | 4.324 | 799.2 | 0.2391 | 8.530 | 861.5 | 0.2214 |
| 23 | 0.000 | | 0.2487 | 3.723 | 761.6 | 0.2336 | 7.251 | 804.8 | 0.2163 |
| 24 | 0.000 | | 0.2464 | 1.725 | 648.9 | 0.2297 | 3.399 | 668.4 | 0.2124 |
| 25 | 0.000 | | 0.2452 | 1.074 | 615.6 | 0.2280 | 2.093 | 625.7 | 0.2110 |
| | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.005 | 658.0 | 0.7396 | 5.454 | 637.1 | 0.7396 | 6.535 | 626.4 | 0.7396 |
| 2 | 14.053 | 980.5 | 0.7396 | 19.105 | 865.8 | 0.7396 | 22.632 | 799.1 | 0.7396 |
| 3 | 19.611 | 1086.9 | 0.7275 | 25.962 | 901.1 | 0.7291 | 30.274 | 816.1 | 0.7307 |
| 4 | 22.796 | 1157.7 | 0.6838 | 29.678 | 937.2 | 0.6876 | 34.272 | 836.0 | 0.6916 |
| 5 | 24.171 | 1161.4 | 0.6279 | 31.276 | 952.8 | 0.6345 | 35.981 | 844.0 | 0.6417 |
| 6 | 24.663 | 1145.6 | 0.5696 | 31.906 | 962.6 | 0.5788 | 36.669 | 848.2 | 0.5893 |
| 7 | 24.830 | 1131.9 | 0.5155 | 32.205 | 972.1 | 0.5268 | 37.019 | 851.9 | 0.5399 |
| 8 | 24.961 | 1126.1 | 0.4682 | 32.489 | 983.2 | 0.4809 | 37.364 | 856.3 | 0.4961 |
| 9 | 25.625 | 1138.1 | 0.4277 | 33.429 | 1003.6 | 0.4411 | 38.429 | 865.5 | 0.4572 |
| 10 | 25.495 | 1134.9 | 0.3926 | 33.451 | 1015.0 | 0.4065 | 38.474 | 867.2 | 0.4231 |
| 11 | 25.164 | 1128.0 | 0.3629 | 33.259 | 1025.6 | 0.3769 | 38.265 | 866.0 | 0.3937 |
| 12 | 24.706 | 1118.2 | 0.3376 | 32.934 | 1035.8 | 0.3515 | 37.899 | 862.9 | 0.3681 |
| 13 | 24.162 | 1106.6 | 0.3158 | 32.521 | 1046.0 | 0.3295 | 37.427 | 858.6 | 0.3458 |
| 14 | 23.547 | 1093.1 | 0.2970 | 32.031 | 1055.8 | 0.3104 | 36.869 | 853.6 | 0.3263 |
| 15 | 22.860 | 1077.6 | 0.2807 | 31.461 | 1065.1 | 0.2935 | 36.223 | 848.1 | 0.3091 |
| 16 | 22.083 | 1059.2 | 0.2664 | 30.780 | 1072.8 | 0.2786 | 35.467 | 842.7 | 0.2940 |
| 17 | 21.150 | 1036.9 | 0.2538 | 29.904 | 1077.3 | 0.2653 | 34.575 | 841.5 | 0.2808 |
| 18 | 19.791 | 1008.0 | 0.2428 | 28.550 | 1077.7 | 0.2536 | 33.545 | 865.1 | 0.2704 |
| 19 | 18.659 | 972.1 | 0.2335 | 27.247 | 1064.0 | 0.2434 | 32.853 | 911.6 | 0.2621 |
| 20 | 17.452 | 929.0 | 0.2255 | 25.661 | 1034.3 | 0.2343 | 31.558 | 934.7 | 0.2538 |
| 21 | 15.901 | 874.5 | 0.2188 | 23.342 | 976.8 | 0.2264 | 29.070 | 921.2 | 0.2458 |
| 22 | 13.774 | 814.9 | 0.2131 | 20.296 | 912.5 | 0.2200 | 25.458 | 877.6 | 0.2387 |
| 23 | 11.404 | 755.2 | 0.2087 | 16.728 | 835.4 | 0.2147 | 20.924 | 808.1 | 0.2321 |
| 24 | 5.285 | 644.6 | 0.2054 | 7.664 | 673.1 | 0.2110 | 9.518 | 661.9 | 0.2273 |
| 25 | 3.200 | 610.1 | 0.2042 | 4.566 | 624.5 | 0.2092 | 5.583 | 616.0 | 0.2242 |

Table 4-4. LS1 Burnup and TH Feedback Parameters Assembly A3 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|---------------------------------|-------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 7.761 | 687.6 | 0.7396 | 8.538 | 608.0 | 0.7396 | 8.875 | 595.2 | 0.7396 |
| 2 | 26.330 | 1019.2 | 0.7396 | 28.616 | 709.5 | 0.7396 | 29.571 | 663.5 | 0.7396 |
| 3 | 34.562 | 1029.1 | 0.7291 | 37.265 | 714.1 | 0.7310 | 38.376 | 665.6 | 0.7317 |
| 4 | 38.640 | 1040.8 | 0.6893 | 41.561 | 727.7 | 0.6937 | 42.761 | 674.4 | 0.6954 |
| 5 | 40.311 | 1035.2 | 0.6392 | 43.455 | 741.8 | 0.6467 | 44.751 | 684.0 | 0.6497 |
| 6 | 40.941 | 1026.7 | 0.5868 | 44.323 | 757.3 | 0.5978 | 45.730 | 695.3 | 0.6025 |
| 7 | 41.245 | 1020.1 | 0.5377 | 44.861 | 772.7 | 0.5517 | 46.385 | 707.4 | 0.5581 |
| 8 | 41.570 | 1017.2 | 0.4942 | 45.395 | 786.8 | 0.5105 | 47.034 | 719.4 | 0.5183 |
| 9 | 42.679 | 1023.5 | 0.4557 | 46.729 | 802.3 | 0.4735 | 48.499 | 733.4 | 0.4825 |
| 10 | 42.722 | 1023.3 | 0.4219 | 46.908 | 811.7 | 0.4406 | 48.777 | 744.2 | 0.4506 |
| 11 | 42.514 | 1023.4 | 0.3927 | 46.788 | 817.9 | 0.4117 | 48.746 | 754.0 | 0.4224 |
| 12 | 42.147 | 1023.3 | 0.3673 | 46.471 | 821.5 | 0.3862 | 48.510 | 763.0 | 0.3973 |
| 13 | 41.673 | 1023.0 | 0.3452 | 46.010 | 822.4 | 0.3636 | 48.123 | 771.3 | 0.3751 |
| 14 | 41.109 | 1022.1 | 0.3257 | 45.425 | 820.9 | 0.3436 | 47.602 | 778.6 | 0.3553 |
| 15 | 40.447 | 1019.8 | 0.3085 | 44.712 | 817.3 | 0.3259 | 46.940 | 784.5 | 0.3375 |
| 16 | 39.661 | 1015.5 | 0.2934 | 43.845 | 811.6 | 0.3101 | 46.110 | 788.8 | 0.3217 |
| 17 | 38.705 | 1006.3 | 0.2801 | 42.778 | 803.9 | 0.2962 | 45.063 | 791.1 | 0.3077 |
| 18 | 37.562 | 990.4 | 0.2696 | 41.485 | 793.5 | 0.2850 | 43.765 | 790.5 | 0.2962 |
| 19 | 36.687 | 965.1 | 0.2611 | 40.396 | 779.0 | 0.2754 | 42.624 | 784.5 | 0.2860 |
| 20 | 35.189 | 937.9 | 0.2526 | 38.663 | 763.3 | 0.2662 | 40.814 | 775.6 | 0.2765 |
| 21 | 32.388 | 897.6 | 0.2446 | 35.522 | 741.2 | 0.2576 | 37.520 | 758.4 | 0.2676 |
| 22 | 28.411 | 852.9 | 0.2374 | 31.162 | 717.1 | 0.2502 | 32.967 | 737.2 | 0.2602 |
| 23 | 23.356 | 793.2 | 0.2309 | 25.549 | 683.3 | 0.2433 | 27.020 | 701.9 | 0.2529 |
| 24 | 10.657 | 662.4 | 0.2261 | 11.620 | 613.9 | 0.2381 | 12.273 | 621.9 | 0.2474 |
| 25 | 6.234 | 618.5 | 0.2233 | 6.734 | 589.2 | 0.2339 | 7.071 | 593.1 | 0.2424 |
| Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.290 | 586.0 | 0.7396 | | | | | | |
| 2 | 30.707 | 632.9 | 0.7396 | | | | | | |
| 3 | 39.653 | 632.8 | 0.7325 | | | | | | |
| 4 | 44.094 | 635.9 | 0.6972 | | | | | | |
| 5 | 46.151 | 639.8 | 0.653 | | | | | | |
| 6 | 47.234 | 645.7 | 0.6073 | | | | | | |
| 7 | 48.023 | 653.5 | 0.5647 | | | | | | |
| 8 | 48.826 | 662.5 | 0.5268 | | | | | | |
| 9 | 50.485 | 674.1 | 0.4929 | | | | | | |
| 10 | 50.951 | 685.4 | 0.4629 | | | | | | |
| 11 | 51.118 | 697.5 | 0.4366 | | | | | | |
| 12 | 51.090 | 710.5 | 0.4136 | | | | | | |
| 13 | 50.917 | 724.1 | 0.3931 | | | | | | |
| 14 | 50.611 | 738.0 | 0.3748 | | | | | | |
| 15 | 50.160 | 752.0 | 0.3583 | | | | | | |
| 16 | 49.532 | 765.5 | 0.3434 | | | | | | |
| 17 | 48.667 | 778.0 | 0.3302 | | | | | | |
| 18 | 47.513 | 787.9 | 0.3189 | | | | | | |
| 19 | 46.433 | 792.2 | 0.3085 | | | | | | |
| 20 | 44.618 | 791.9 | 0.2986 | | | | | | |
| 21 | 41.151 | 779.8 | 0.2894 | | | | | | |
| 22 | 36.336 | 761.9 | 0.2820 | | | | | | |
| 23 | 29.817 | 724.3 | 0.2742 | | | | | | |
| 24 | 13.529 | 631.6 | 0.2680 | | | | | | |
| 25 | 7.711 | 597.5 | 0.2609 | | | | | | |

Table 4-5. LS1 Burnup and TH Feedback Parameters Assembly A4

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.093 | 623.0 | 0.7396 | 2.270 | 646.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.728 | 797.3 | 0.7396 | 7.776 | 900.7 | 0.7396 |
| 3 | 0.000 | | 0.7305 | 5.255 | 861.1 | 0.7317 | 11.163 | 1023.3 | 0.7317 |
| 4 | 0.000 | Data | 0.6670 | 6.438 | 947.3 | 0.7096 | 13.555 | 1157.9 | 0.6903 |
| 5 | 0.000 | Not | 0.5971 | 7.266 | 1013.1 | 0.6647 | 14.836 | 1213.0 | 0.6338 |
| 6 | 0.000 | Required | 0.5325 | 7.829 | 1060.7 | 0.6100 | 15.457 | 1220.2 | 0.5730 |
| 7 | 0.000 | | 0.4787 | 8.205 | 1093.8 | 0.5534 | 15.771 | 1212.5 | 0.5161 |
| 8 | 0.000 | | 0.4347 | 8.478 | 1118.5 | 0.5009 | 15.981 | 1204.7 | 0.4667 |
| 9 | 0.000 | | 0.3981 | 8.921 | 1159.8 | 0.4548 | 16.535 | 1218.5 | 0.4244 |
| 10 | 0.000 | | 0.3675 | 8.933 | 1161.0 | 0.4151 | 16.484 | 1210.6 | 0.3879 |
| 11 | 0.000 | | 0.3422 | 8.797 | 1148.1 | 0.3819 | 16.277 | 1201.9 | 0.3573 |
| 12 | 0.000 | | 0.3211 | 8.568 | 1126.8 | 0.3542 | 15.969 | 1192.2 | 0.3312 |
| 13 | 0.000 | | 0.3034 | 8.266 | 1101.1 | 0.3308 | 15.595 | 1181.0 | 0.3091 |
| 14 | 0.000 | | 0.2884 | 7.978 | 1073.7 | 0.3109 | 15.170 | 1166.9 | 0.2900 |
| 15 | 0.000 | | 0.2758 | 7.664 | 1046.5 | 0.2940 | 14.706 | 1149.1 | 0.2737 |
| 16 | 0.000 | | 0.2650 | 7.366 | 1021.4 | 0.2794 | 14.210 | 1126.0 | 0.2595 |
| 17 | 0.000 | | 0.2559 | 7.063 | 996.6 | 0.2667 | 13.636 | 1095.2 | 0.2472 |
| 18 | 0.000 | | 0.2483 | 6.568 | 957.4 | 0.2556 | 12.715 | 1048.6 | 0.2364 |
| 19 | 0.000 | | 0.2419 | 6.277 | 935.1 | 0.2458 | 12.088 | 1013.3 | 0.2271 |
| 20 | 0.000 | | 0.2361 | 5.984 | 913.2 | 0.2370 | 11.466 | 980.0 | 0.2188 |
| 21 | 0.000 | | 0.2310 | 5.610 | 886.1 | 0.2292 | 10.698 | 941.6 | 0.2114 |
| 22 | 0.000 | | 0.2267 | 4.994 | 843.3 | 0.2223 | 9.494 | 887.4 | 0.2051 |
| 23 | 0.000 | | 0.2232 | 4.306 | 798.0 | 0.2166 | 8.122 | 828.4 | 0.2000 |
| 24 | 0.000 | | 0.2209 | 2.018 | 664.4 | 0.2124 | 3.860 | 679.8 | 0.1960 |
| 25 | 0.000 | | 0.2197 | 1.265 | 625.2 | 0.2107 | 2.400 | 633.1 | 0.1945 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 3.700 | 632.2 | 0.7396 | 4.716 | 613.4 | 0.7396 | 6.411 | 666.5 | 0.7396 |
| 2 | 12.991 | 859.0 | 0.7396 | 16.596 | 766.7 | 0.7396 | 22.186 | 975.5 | 0.7396 |
| 3 | 18.265 | 928.2 | 0.7329 | 22.792 | 787.9 | 0.7355 | 29.520 | 1004.1 | 0.7333 |
| 4 | 21.400 | 978.1 | 0.6940 | 26.324 | 811.2 | 0.7006 | 33.306 | 1026.4 | 0.6971 |
| 5 | 22.875 | 991.6 | 0.6412 | 28.006 | 823.7 | 0.6530 | 34.916 | 1020.0 | 0.6493 |
| 6 | 23.518 | 993.1 | 0.5841 | 28.827 | 834.5 | 0.6012 | 35.575 | 1005.9 | 0.5978 |
| 7 | 23.827 | 992.8 | 0.5299 | 29.320 | 845.9 | 0.5515 | 35.920 | 993.1 | 0.5486 |
| 8 | 24.054 | 994.0 | 0.4822 | 29.745 | 858.3 | 0.5069 | 36.253 | 985.2 | 0.5048 |
| 9 | 24.781 | 1006.2 | 0.4409 | 30.771 | 877.4 | 0.4674 | 37.327 | 989.3 | 0.4660 |
| 10 | 24.748 | 1007.5 | 0.4051 | 30.928 | 889.8 | 0.4329 | 37.434 | 985.0 | 0.4321 |
| 11 | 24.521 | 1006.1 | 0.3749 | 30.871 | 901.0 | 0.4032 | 37.299 | 978.4 | 0.4028 |
| 12 | 24.161 | 1002.4 | 0.3490 | 30.670 | 911.7 | 0.3775 | 37.003 | 970.5 | 0.3775 |
| 13 | 23.709 | 996.8 | 0.3268 | 30.367 | 921.8 | 0.3552 | 36.595 | 961.7 | 0.3554 |
| 14 | 23.182 | 989.7 | 0.3076 | 29.979 | 931.3 | 0.3356 | 36.096 | 952.6 | 0.3361 |
| 15 | 22.587 | 980.6 | 0.2909 | 29.508 | 939.9 | 0.3185 | 35.504 | 942.7 | 0.3191 |
| 16 | 21.923 | 969.0 | 0.2763 | 28.945 | 946.9 | 0.3033 | 34.802 | 931.5 | 0.3040 |
| 17 | 21.126 | 953.9 | 0.2635 | 28.214 | 951.6 | 0.2898 | 33.909 | 918.6 | 0.2907 |
| 18 | 19.907 | 934.1 | 0.2524 | 27.021 | 953.4 | 0.2783 | 32.558 | 906.2 | 0.2792 |
| 19 | 18.876 | 907.9 | 0.2425 | 25.889 | 946.3 | 0.2676 | 31.256 | 893.1 | 0.2685 |
| 20 | 17.744 | 876.0 | 0.2336 | 24.509 | 929.1 | 0.2576 | 29.679 | 878.2 | 0.2586 |
| 21 | 16.268 | 833.6 | 0.2254 | 22.477 | 891.7 | 0.2484 | 27.248 | 848.7 | 0.2495 |
| 22 | 14.228 | 786.4 | 0.2186 | 19.759 | 848.2 | 0.2408 | 24.001 | 811.3 | 0.2420 |
| 23 | 11.887 | 735.0 | 0.2128 | 16.452 | 790.1 | 0.2340 | 19.912 | 759.0 | 0.2354 |
| 24 | 5.537 | 635.2 | 0.2084 | 7.551 | 655.2 | 0.2285 | 9.101 | 644.9 | 0.2302 |
| 25 | 3.353 | 603.5 | 0.2081 | 4.476 | 613.3 | 0.2249 | 5.344 | 608.1 | 0.2268 |

Table 4-5. LS1 Burnup and TH Feedback Parameters Assembly A4

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|----------------------------------------|-------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 7.550 | 677.8 | 0.7396 | 8.734 | 634.1 | 0.7396 | 9.332 | 623.3 | 0.7396 |
| 2 | 25.683 | 987.6 | 0.7396 | 29.227 | 804.5 | 0.7396 | 30.967 | 759.2 | 0.7396 |
| 3 | 33.613 | 1001.1 | 0.7320 | 37.913 | 819.8 | 0.7334 | 40.039 | 772.8 | 0.7343 |
| 4 | 37.496 | 1014.9 | 0.6953 | 42.212 | 849.9 | 0.6985 | 44.578 | 800.6 | 0.7005 |
| 5 | 39.055 | 1007.6 | 0.6474 | 44.092 | 873.9 | 0.6529 | 46.628 | 820.8 | 0.6563 |
| 6 | 39.641 | 997.3 | 0.5961 | 44.931 | 893.3 | 0.6038 | 47.597 | 836.7 | 0.6085 |
| 7 | 39.924 | 988.6 | 0.5473 | 45.418 | 909.3 | 0.5565 | 48.180 | 848.7 | 0.5621 |
| 8 | 40.219 | 983.3 | 0.5038 | 45.888 | 923.3 | 0.5135 | 48.732 | 859.0 | 0.5198 |
| 9 | 41.326 | 987.9 | 0.4653 | 47.209 | 940.7 | 0.4749 | 50.154 | 871.9 | 0.4814 |
| 10 | 41.418 | 985.8 | 0.4317 | 47.386 | 947.7 | 0.4409 | 50.374 | 877.4 | 0.4474 |
| 11 | 41.265 | 983.3 | 0.4028 | 47.260 | 949.9 | 0.4115 | 50.276 | 881.1 | 0.4178 |
| 12 | 40.953 | 981.1 | 0.3776 | 46.917 | 947.3 | 0.3857 | 49.957 | 884.2 | 0.3919 |
| 13 | 40.528 | 978.7 | 0.3556 | 46.421 | 941.5 | 0.3632 | 49.478 | 886.4 | 0.3692 |
| 14 | 40.009 | 975.9 | 0.3363 | 45.792 | 932.5 | 0.3436 | 48.866 | 888.7 | 0.3493 |
| 15 | 39.390 | 972.2 | 0.3193 | 45.025 | 920.5 | 0.3260 | 48.109 | 890.0 | 0.3317 |
| 16 | 38.644 | 966.2 | 0.3042 | 44.086 | 905.2 | 0.3106 | 47.160 | 888.7 | 0.3161 |
| 17 | 37.681 | 956.7 | 0.2908 | 42.880 | 886.3 | 0.2969 | 45.913 | 883.3 | 0.3021 |
| 18 | 36.242 | 945.0 | 0.2792 | 41.176 | 866.1 | 0.2850 | 44.145 | 875.0 | 0.2900 |
| 19 | 34.815 | 928.5 | 0.2685 | 39.457 | 844.4 | 0.2739 | 42.329 | 862.5 | 0.2788 |
| 20 | 33.076 | 907.6 | 0.2586 | 37.411 | 822.3 | 0.2640 | 40.158 | 846.8 | 0.2687 |
| 21 | 30.358 | 871.9 | 0.2496 | 34.252 | 791.5 | 0.2548 | 36.779 | 819.8 | 0.2594 |
| 22 | 26.758 | 829.9 | 0.2421 | 30.147 | 757.7 | 0.2473 | 32.398 | 787.1 | 0.2517 |
| 23 | 22.166 | 773.7 | 0.2356 | 24.868 | 714.1 | 0.2406 | 26.695 | 739.6 | 0.2449 |
| 24 | 10.138 | 653.0 | 0.2305 | 11.363 | 628.1 | 0.2357 | 12.208 | 639.9 | 0.2401 |
| 25 | 5.930 | 612.9 | 0.2272 | 6.599 | 598.1 | 0.2323 | 7.061 | 604.4 | 0.2364 |
| Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 10.221 | 616.5 | 0.7396 | | | | | | |
| 2 | 33.405 | 724.9 | 0.7396 | | | | | | |
| 3 | 42.871 | 726.6 | 0.7354 | | | | | | |
| 4 | 47.571 | 737.0 | 0.7032 | | | | | | |
| 5 | 49.736 | 744.5 | 0.6609 | | | | | | |
| 6 | 50.844 | 753.8 | 0.6153 | | | | | | |
| 7 | 51.605 | 765.7 | 0.5711 | | | | | | |
| 8 | 52.353 | 779.1 | 0.5305 | | | | | | |
| 9 | 54.017 | 796.0 | 0.4934 | | | | | | |
| 10 | 54.439 | 810.4 | 0.4604 | | | | | | |
| 11 | 54.539 | 824.8 | 0.4314 | | | | | | |
| 12 | 54.415 | 839.2 | 0.4059 | | | | | | |
| 13 | 54.132 | 853.9 | 0.3834 | | | | | | |
| 14 | 53.707 | 868.2 | 0.3635 | | | | | | |
| 15 | 53.126 | 881.9 | 0.3457 | | | | | | |
| 16 | 52.339 | 894.8 | 0.3298 | | | | | | |
| 17 | 51.227 | 905.6 | 0.3156 | | | | | | |
| 18 | 49.562 | 914.0 | 0.3033 | | | | | | |
| 19 | 47.752 | 914.4 | 0.2917 | | | | | | |
| 20 | 45.470 | 905.4 | 0.2810 | | | | | | |
| 21 | 41.739 | 877.5 | 0.2712 | | | | | | |
| 22 | 36.861 | 839.5 | 0.2631 | | | | | | |
| 23 | 30.343 | 781.0 | 0.2557 | | | | | | |
| 24 | 13.921 | 657.9 | 0.2508 | | | | | | |
| 25 | 7.992 | 613.4 | 0.2467 | | | | | | |

Table 4-6. LS1 Burnup and TH Feedback Parameters Assembly A5

| Node No. | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|-------------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.108 | 623.9 | 0.7396 | 2.280 | 645.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.780 | 801.2 | 0.7396 | 7.787 | 896.5 | 0.7396 |
| 3 | 0.000 | | 0.7311 | 5.313 | 865.2 | 0.7395 | 11.100 | 1010.8 | 0.7318 |
| 4 | 0.000 | Data | 0.6681 | 6.493 | 951.6 | 0.7094 | 13.423 | 1136.0 | 0.6914 |
| 5 | 0.000 | Not | 0.5983 | 7.317 | 1017.4 | 0.6644 | 14.701 | 1190.1 | 0.6362 |
| 6 | 0.000 | Required | 0.5332 | 7.872 | 1064.4 | 0.6096 | 15.347 | 1201.2 | 0.5761 |
| 7 | 0.000 | | 0.4790 | 8.235 | 1096.5 | 0.5529 | 15.682 | 1197.8 | 0.5191 |
| 8 | 0.000 | | 0.4347 | 8.493 | 1119.9 | 0.5004 | 15.902 | 1193.1 | 0.4693 |
| 9 | 0.000 | | 0.3980 | 8.918 | 1159.6 | 0.4544 | 16.455 | 1208.9 | 0.4268 |
| 10 | 0.000 | | 0.3672 | 8.913 | 1159.1 | 0.4150 | 16.402 | 1203.0 | 0.3902 |
| 11 | 0.000 | | 0.3419 | 8.765 | 1145.1 | 0.3820 | 16.196 | 1195.8 | 0.3593 |
| 12 | 0.000 | | 0.3208 | 8.524 | 1122.7 | 0.3544 | 15.887 | 1187.5 | 0.3332 |
| 13 | 0.000 | | 0.3032 | 8.226 | 1095.7 | 0.3311 | 15.509 | 1177.8 | 0.3109 |
| 14 | 0.000 | | 0.2882 | 7.896 | 1066.5 | 0.3114 | 15.083 | 1166.3 | 0.2918 |
| 15 | 0.000 | | 0.2756 | 7.548 | 1036.7 | 0.2947 | 14.620 | 1152.6 | 0.2753 |
| 16 | 0.000 | | 0.2648 | 7.184 | 1006.4 | 0.2803 | 14.111 | 1135.6 | 0.2609 |
| 17 | 0.000 | | 0.2557 | 6.786 | 974.4 | 0.2680 | 13.513 | 1112.6 | 0.2482 |
| 18 | 0.000 | | 0.2481 | 6.222 | 930.9 | 0.2573 | 12.590 | 1072.5 | 0.2372 |
| 19 | 0.000 | | 0.2417 | 5.921 | 908.6 | 0.2481 | 12.010 | 1042.4 | 0.2278 |
| 20 | 0.000 | | 0.2358 | 5.690 | 891.8 | 0.2396 | 11.466 | 1009.7 | 0.2195 |
| 21 | 0.000 | | 0.2308 | 5.394 | 870.8 | 0.2319 | 10.740 | 966.6 | 0.2123 |
| 22 | 0.000 | | 0.2266 | 4.841 | 833.0 | 0.2252 | 9.522 | 903.7 | 0.2060 |
| 23 | 0.000 | | 0.2230 | 4.177 | 789.8 | 0.2195 | 8.089 | 836.4 | 0.2010 |
| 24 | 0.000 | | 0.2209 | 1.944 | 660.5 | 0.2154 | 3.808 | 681.3 | 0.1972 |
| 25 | 0.000 | | 0.2197 | 1.213 | 622.6 | 0.2137 | 2.351 | 633.3 | 0.1957 |
| Node No. | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.006 | 647.9 | 0.7396 | 5.842 | 659.0 | 0.7396 | 7.551 | 667.5 | 0.7396 |
| 2 | 14.019 | 930.9 | 0.7396 | 20.269 | 956.4 | 0.7396 | 25.617 | 953.1 | 0.7396 |
| 3 | 19.541 | 1020.2 | 0.7290 | 27.241 | 995.8 | 0.7267 | 33.580 | 971.0 | 0.7262 |
| 4 | 22.782 | 1088.9 | 0.6859 | 30.954 | 1031.5 | 0.6824 | 37.566 | 994.1 | 0.6825 |
| 5 | 24.285 | 1106.5 | 0.6291 | 32.572 | 1040.4 | 0.6259 | 39.256 | 1000.3 | 0.6270 |
| 6 | 24.908 | 1104.7 | 0.5689 | 33.245 | 1044.3 | 0.5671 | 39.960 | 1003.0 | 0.5696 |
| 7 | 25.183 | 1100.0 | 0.5130 | 33.597 | 1050.3 | 0.5132 | 40.375 | 1008.5 | 0.5171 |
| 8 | 25.394 | 1099.3 | 0.4648 | 33.924 | 1059.4 | 0.4667 | 40.734 | 1011.3 | 0.4714 |
| 9 | 26.118 | 1112.8 | 0.4238 | 34.897 | 1079.4 | 0.4269 | 41.806 | 1020.0 | 0.4320 |
| 10 | 26.039 | 1110.7 | 0.3886 | 34.946 | 1089.8 | 0.3925 | 41.850 | 1019.5 | 0.3980 |
| 11 | 25.745 | 1103.8 | 0.3587 | 34.781 | 1100.3 | 0.3630 | 41.632 | 1014.9 | 0.3687 |
| 12 | 25.308 | 1093.8 | 0.3333 | 34.473 | 1111.0 | 0.3379 | 41.240 | 1007.5 | 0.3436 |
| 13 | 24.776 | 1081.8 | 0.3115 | 34.067 | 1121.6 | 0.3161 | 40.730 | 998.5 | 0.3218 |
| 14 | 24.175 | 1068.5 | 0.2927 | 33.583 | 1131.5 | 0.2971 | 40.125 | 988.1 | 0.3028 |
| 15 | 23.514 | 1053.5 | 0.2764 | 33.022 | 1140.0 | 0.2804 | 39.424 | 976.2 | 0.2860 |
| 16 | 22.778 | 1036.7 | 0.2621 | 32.359 | 1146.3 | 0.2657 | 38.601 | 962.9 | 0.2713 |
| 17 | 21.909 | 1016.9 | 0.2496 | 31.522 | 1149.0 | 0.2525 | 37.623 | 951.2 | 0.2583 |
| 18 | 20.649 | 993.0 | 0.2386 | 30.232 | 1146.4 | 0.2408 | 36.347 | 952.4 | 0.2475 |
| 19 | 19.622 | 962.1 | 0.2290 | 28.990 | 1128.1 | 0.2306 | 34.925 | 937.8 | 0.2372 |
| 20 | 18.517 | 924.8 | 0.2207 | 27.455 | 1092.3 | 0.2214 | 33.110 | 915.5 | 0.2280 |
| 21 | 17.003 | 875.1 | 0.2135 | 25.109 | 1026.4 | 0.2136 | 30.274 | 877.8 | 0.2200 |
| 22 | 14.864 | 820.5 | 0.2073 | 21.991 | 954.3 | 0.2069 | 26.551 | 833.6 | 0.2131 |
| 23 | 12.378 | 762.4 | 0.2024 | 18.257 | 870.2 | 0.2016 | 21.955 | 774.6 | 0.2075 |
| 24 | 5.776 | 648.3 | 0.1987 | 8.487 | 689.7 | 0.1979 | 10.177 | 652.7 | 0.2037 |
| 25 | 3.502 | 612.0 | 0.1972 | 5.088 | 634.8 | 0.1962 | 6.033 | 612.2 | 0.2016 |

Table 4-6. LS1 Burnup and TH Feedback Parameters Assembly A5 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 8.338 | 639.6 | 0.7396 | 8.977 | 599.3 | 0.7396 | 9.199 | 583.1 | 0.7396 |
| 2 | 27.924 | 818.4 | 0.7396 | 29.766 | 678.3 | 0.7396 | 30.390 | 626.2 | 0.7396 |
| 3 | 36.284 | 823.8 | 0.7273 | 38.460 | 682.3 | 0.7284 | 39.188 | 628.9 | 0.7289 |
| 4 | 40.408 | 839.8 | 0.6850 | 42.774 | 693.6 | 0.6875 | 43.568 | 635.1 | 0.6887 |
| 5 | 42.189 | 850.6 | 0.6313 | 44.733 | 704.4 | 0.6355 | 45.601 | 642.1 | 0.6377 |
| 6 | 42.972 | 860.0 | 0.5756 | 45.697 | 715.5 | 0.5815 | 46.654 | 650.6 | 0.5847 |
| 7 | 43.455 | 868.2 | 0.5243 | 46.346 | 725.8 | 0.5313 | 47.401 | 660.1 | 0.5356 |
| 8 | 43.874 | 875.5 | 0.4795 | 46.909 | 734.9 | 0.4871 | 48.063 | 669.8 | 0.4922 |
| 9 | 45.036 | 886.6 | 0.4404 | 48.223 | 744.6 | 0.4482 | 49.489 | 681.0 | 0.4539 |
| 10 | 45.117 | 891.2 | 0.4065 | 48.390 | 750.2 | 0.4142 | 49.754 | 690.9 | 0.4204 |
| 11 | 44.930 | 895.1 | 0.3773 | 48.261 | 753.9 | 0.3848 | 49.724 | 701.0 | 0.3912 |
| 12 | 44.561 | 898.0 | 0.3520 | 47.925 | 756.1 | 0.3593 | 49.491 | 711.7 | 0.3659 |
| 13 | 44.069 | 900.3 | 0.3301 | 47.439 | 756.5 | 0.3371 | 49.105 | 722.3 | 0.3438 |
| 14 | 43.477 | 901.9 | 0.3109 | 46.829 | 755.3 | 0.3177 | 48.580 | 731.4 | 0.3243 |
| 15 | 42.788 | 903.4 | 0.2941 | 46.097 | 752.5 | 0.3005 | 47.908 | 737.8 | 0.3070 |
| 16 | 41.990 | 906.6 | 0.2794 | 45.228 | 747.9 | 0.2854 | 47.072 | 741.4 | 0.2916 |
| 17 | 41.163 | 926.0 | 0.2668 | 44.290 | 740.8 | 0.2725 | 46.136 | 741.6 | 0.2784 |
| 18 | 40.322 | 984.5 | 0.2574 | 43.286 | 730.4 | 0.2625 | 45.098 | 738.0 | 0.2680 |
| 19 | 38.952 | 991.8 | 0.2470 | 41.757 | 720.4 | 0.2519 | 43.527 | 733.4 | 0.2571 |
| 20 | 37.007 | 973.7 | 0.2373 | 39.627 | 709.0 | 0.2420 | 41.327 | 725.9 | 0.2469 |
| 21 | 33.886 | 935.4 | 0.2287 | 36.232 | 692.4 | 0.2332 | 37.795 | 711.4 | 0.2380 |
| 22 | 29.787 | 887.4 | 0.2216 | 31.827 | 674.3 | 0.2260 | 33.220 | 693.9 | 0.2306 |
| 23 | 24.599 | 816.9 | 0.2155 | 26.229 | 650.7 | 0.2197 | 27.362 | 667.8 | 0.2240 |
| 24 | 11.405 | 670.7 | 0.2114 | 12.141 | 601.7 | 0.2155 | 12.656 | 609.2 | 0.2197 |
| 25 | 6.714 | 621.1 | 0.2087 | 7.109 | 583.7 | 0.2125 | 7.383 | 587.4 | 0.2163 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.496 | 578.6 | 0.7396 | | | | | | |
| 2 | 31.193 | 610.9 | 0.7396 | | | | | | |
| 3 | 40.095 | 612.1 | 0.7295 | | | | | | |
| 4 | 44.527 | 615.0 | 0.6901 | | | | | | |
| 5 | 46.622 | 618.4 | 0.6402 | | | | | | |
| 6 | 47.763 | 623.3 | 0.5885 | | | | | | |
| 7 | 48.620 | 629.5 | 0.5408 | | | | | | |
| 8 | 49.412 | 636.9 | 0.4988 | | | | | | |
| 9 | 50.995 | 645.9 | 0.4617 | | | | | | |
| 10 | 51.407 | 654.4 | 0.4293 | | | | | | |
| 11 | 51.525 | 663.1 | 0.4011 | | | | | | |
| 12 | 51.440 | 671.8 | 0.3766 | | | | | | |
| 13 | 51.205 | 680.9 | 0.3551 | | | | | | |
| 14 | 50.834 | 690.3 | 0.3360 | | | | | | |
| 15 | 50.319 | 700.0 | 0.3190 | | | | | | |
| 16 | 49.637 | 709.6 | 0.3039 | | | | | | |
| 17 | 48.836 | 718.1 | 0.2908 | | | | | | |
| 18 | 47.888 | 723.9 | 0.2800 | | | | | | |
| 19 | 46.389 | 728.5 | 0.2690 | | | | | | |
| 20 | 44.206 | 729.6 | 0.2588 | | | | | | |
| 21 | 40.546 | 721.4 | 0.2496 | | | | | | |
| 22 | 35.763 | 708.2 | 0.2420 | | | | | | |
| 23 | 29.486 | 682.4 | 0.2351 | | | | | | |
| 24 | 13.633 | 616.0 | 0.2303 | | | | | | |
| 25 | 7.899 | 590.7 | 0.2259 | | | | | | |

Table 4-7. LS1 Burnup and TH Feedback Parameters Assembly A6

| Node No. | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|-------------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.121 | 624.7 | 0.7396 | 2.171 | 636.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.845 | 806.0 | 0.7396 | 7.534 | 864.6 | 0.7396 |
| 3 | 0.000 | | 0.7375 | 5.434 | 873.6 | 0.7345 | 10.930 | 981.4 | 0.7345 |
| 4 | 0.000 | Data | 0.6818 | 6.609 | 960.5 | 0.7099 | 13.324 | 1111.2 | 0.6969 |
| 5 | 0.000 | Not | 0.6166 | 7.350 | 1020.1 | 0.6655 | 14.542 | 1166.9 | 0.6441 |
| 6 | 0.000 | Required | 0.5542 | 7.786 | 1057.0 | 0.6118 | 15.036 | 1173.8 | 0.5853 |
| 7 | 0.000 | | 0.5012 | 8.026 | 1077.9 | 0.5562 | 15.192 | 1163.8 | 0.5288 |
| 8 | 0.000 | | 0.4575 | 8.180 | 1091.6 | 0.5051 | 15.258 | 1153.3 | 0.4795 |
| 9 | 0.000 | | 0.4208 | 8.517 | 1122.1 | 0.4602 | 15.681 | 1163.5 | 0.4373 |
| 10 | 0.000 | | 0.3899 | 8.447 | 1115.7 | 0.4219 | 15.520 | 1152.7 | 0.4012 |
| 11 | 0.000 | | 0.3644 | 8.256 | 1098.4 | 0.3900 | 15.226 | 1140.6 | 0.3708 |
| 12 | 0.000 | | 0.3430 | 7.997 | 1075.4 | 0.3630 | 14.858 | 1128.0 | 0.3452 |
| 13 | 0.000 | | 0.3250 | 7.699 | 1049.5 | 0.3403 | 14.442 | 1114.4 | 0.3232 |
| 14 | 0.000 | | 0.3097 | 7.376 | 1022.3 | 0.3210 | 13.990 | 1099.8 | 0.3043 |
| 15 | 0.000 | | 0.2966 | 7.038 | 994.5 | 0.3045 | 13.505 | 1083.4 | 0.2880 |
| 16 | 0.000 | | 0.2854 | 6.683 | 966.3 | 0.2903 | 12.979 | 1064.6 | 0.2737 |
| 17 | 0.000 | | 0.2759 | 6.289 | 936.0 | 0.2779 | 12.361 | 1040.6 | 0.2612 |
| 18 | 0.000 | | 0.2679 | 5.725 | 894.3 | 0.2673 | 11.418 | 1001.2 | 0.2503 |
| 19 | 0.000 | | 0.2612 | 5.403 | 871.5 | 0.2582 | 10.824 | 973.9 | 0.2410 |
| 20 | 0.000 | | 0.2555 | 5.143 | 853.4 | 0.2500 | 10.289 | 947.2 | 0.2327 |
| 21 | 0.000 | | 0.2505 | 4.840 | 832.9 | 0.2426 | 9.624 | 913.1 | 0.2255 |
| 22 | 0.000 | | 0.2464 | 4.313 | 798.5 | 0.2361 | 8.510 | 860.7 | 0.2193 |
| 23 | 0.000 | | 0.2430 | 3.711 | 760.9 | 0.2308 | 7.226 | 803.8 | 0.2143 |
| 24 | 0.000 | | 0.2408 | 1.722 | 648.8 | 0.2270 | 3.389 | 668.0 | 0.2106 |
| 25 | 0.000 | | 0.2395 | 1.073 | 615.5 | 0.2253 | 2.086 | 625.3 | 0.2092 |
| Node No. | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 3.547 | 629.3 | 0.7396 | 4.616 | 616.3 | 0.7396 | 5.858 | 636.7 | 0.7396 |
| 2 | 12.572 | 847.0 | 0.7396 | 16.341 | 777.4 | 0.7396 | 20.457 | 846.2 | 0.7396 |
| 3 | 17.836 | 915.5 | 0.7352 | 22.477 | 794.6 | 0.7372 | 27.370 | 857.6 | 0.7378 |
| 4 | 20.944 | 962.7 | 0.6994 | 25.906 | 813.5 | 0.7047 | 30.970 | 870.3 | 0.7069 |
| 5 | 22.341 | 974.9 | 0.6499 | 27.469 | 823.5 | 0.6597 | 32.529 | 870.0 | 0.6642 |
| 6 | 22.871 | 977.4 | 0.5949 | 28.162 | 833.4 | 0.6097 | 33.199 | 868.3 | 0.6166 |
| 7 | 23.041 | 978.3 | 0.5417 | 28.518 | 844.9 | 0.5608 | 33.543 | 867.4 | 0.5698 |
| 8 | 23.129 | 979.9 | 0.4943 | 28.805 | 857.3 | 0.5167 | 33.836 | 867.8 | 0.5269 |
| 9 | 23.710 | 990.9 | 0.4531 | 29.684 | 876.4 | 0.4775 | 34.809 | 874.8 | 0.4884 |
| 10 | 23.556 | 991.4 | 0.4177 | 29.723 | 888.9 | 0.4434 | 34.853 | 875.2 | 0.4546 |
| 11 | 23.243 | 990.0 | 0.3876 | 29.585 | 900.5 | 0.4140 | 34.704 | 874.4 | 0.4252 |
| 12 | 22.830 | 986.9 | 0.3620 | 29.335 | 911.4 | 0.3885 | 34.427 | 872.4 | 0.3996 |
| 13 | 22.345 | 982.1 | 0.3398 | 29.004 | 921.8 | 0.3662 | 34.054 | 869.2 | 0.3772 |
| 14 | 21.793 | 975.2 | 0.3206 | 28.593 | 931.5 | 0.3466 | 33.596 | 865.7 | 0.3574 |
| 15 | 21.173 | 965.9 | 0.3038 | 28.096 | 940.0 | 0.3294 | 33.042 | 861.5 | 0.3400 |
| 16 | 20.466 | 953.7 | 0.2890 | 27.485 | 946.7 | 0.3140 | 32.360 | 856.3 | 0.3244 |
| 17 | 19.602 | 937.3 | 0.2761 | 26.681 | 950.9 | 0.3004 | 31.472 | 850.2 | 0.3106 |
| 18 | 18.317 | 915.0 | 0.2649 | 25.419 | 952.6 | 0.2889 | 30.127 | 844.2 | 0.2989 |
| 19 | 17.300 | 888.2 | 0.2548 | 24.308 | 946.0 | 0.2781 | 28.895 | 835.5 | 0.2879 |
| 20 | 16.254 | 857.0 | 0.2459 | 23.008 | 928.3 | 0.2680 | 27.430 | 823.8 | 0.2778 |
| 21 | 14.918 | 817.7 | 0.2380 | 21.113 | 890.8 | 0.2588 | 25.196 | 800.4 | 0.2685 |
| 22 | 12.983 | 772.2 | 0.2312 | 18.497 | 847.2 | 0.2513 | 22.158 | 772.1 | 0.2609 |
| 23 | 10.771 | 723.9 | 0.2256 | 15.308 | 788.5 | 0.2447 | 18.327 | 731.1 | 0.2542 |
| 24 | 4.961 | 630.5 | 0.2216 | 6.947 | 653.9 | 0.2396 | 8.268 | 632.4 | 0.2489 |
| 25 | 2.981 | 601.0 | 0.2195 | 4.089 | 612.7 | 0.2363 | 4.812 | 600.4 | 0.2453 |

Table 4-7. LS1 Burnup and TH Feedback Parameters Assembly A6 (Continued)

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|-------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 6.571 | 631.8 | 0.7396 | 8.000 | 650.3 | 0.7396 | 8.778 | 643.3 | 0.7396 |
| 2 | 22.677 | 807.1 | 0.7396 | 27.089 | 876.4 | 0.7396 | 29.427 | 839.8 | 0.7396 |
| 3 | 29.943 | 808.9 | 0.7383 | 35.370 | 904.0 | 0.7379 | 38.280 | 867.4 | 0.7379 |
| 4 | 33.610 | 816.5 | 0.7085 | 39.559 | 946.1 | 0.7079 | 42.799 | 910.8 | 0.7081 |
| 5 | 35.182 | 818.0 | 0.6672 | 41.444 | 972.4 | 0.6667 | 44.879 | 937.5 | 0.6672 |
| 6 | 35.868 | 819.8 | 0.6211 | 42.311 | 987.9 | 0.6205 | 45.846 | 951.5 | 0.6212 |
| 7 | 36.241 | 823.1 | 0.5757 | 42.791 | 997.2 | 0.5746 | 46.381 | 959.4 | 0.5754 |
| 8 | 36.573 | 827.6 | 0.5338 | 43.214 | 1005.2 | 0.5321 | 46.854 | 966.5 | 0.5328 |
| 9 | 37.630 | 837.4 | 0.4958 | 44.432 | 1019.5 | 0.4937 | 48.171 | 980.9 | 0.4942 |
| 10 | 37.711 | 841.7 | 0.4623 | 44.512 | 1019.4 | 0.4599 | 48.291 | 986.7 | 0.4602 |
| 11 | 37.593 | 845.3 | 0.4331 | 44.321 | 1012.9 | 0.4305 | 48.123 | 990.1 | 0.4306 |
| 12 | 37.343 | 848.5 | 0.4075 | 43.946 | 1001.8 | 0.4048 | 47.770 | 993.4 | 0.4047 |
| 13 | 36.991 | 851.0 | 0.3850 | 43.426 | 987.2 | 0.3822 | 47.268 | 996.1 | 0.3820 |
| 14 | 36.547 | 852.7 | 0.3651 | 42.778 | 969.7 | 0.3624 | 46.624 | 996.7 | 0.3620 |
| 15 | 36.002 | 853.8 | 0.3475 | 41.987 | 949.1 | 0.3449 | 45.810 | 993.2 | 0.3443 |
| 16 | 35.320 | 853.8 | 0.3318 | 41.006 | 924.6 | 0.3294 | 44.759 | 982.9 | 0.3286 |
| 17 | 34.419 | 852.2 | 0.3178 | 39.744 | 896.0 | 0.3156 | 43.364 | 963.7 | 0.3147 |
| 18 | 33.054 | 849.8 | 0.3060 | 38.007 | 867.5 | 0.3039 | 41.453 | 939.0 | 0.3029 |
| 19 | 31.769 | 843.6 | 0.2949 | 36.347 | 839.8 | 0.2931 | 39.581 | 910.0 | 0.2920 |
| 20 | 30.215 | 833.2 | 0.2846 | 34.451 | 815.3 | 0.2830 | 37.461 | 880.3 | 0.2820 |
| 21 | 27.784 | 810.6 | 0.2751 | 31.577 | 784.6 | 0.2738 | 34.273 | 840.4 | 0.2728 |
| 22 | 24.503 | 783.6 | 0.2675 | 27.813 | 752.6 | 0.2664 | 30.166 | 799.0 | 0.2654 |
| 23 | 20.281 | 742.1 | 0.2607 | 22.953 | 712.2 | 0.2598 | 24.853 | 747.6 | 0.2589 |
| 24 | 9.143 | 638.4 | 0.2552 | 10.367 | 628.1 | 0.2547 | 11.254 | 643.9 | 0.2539 |
| 25 | 5.292 | 603.7 | 0.2514 | 5.982 | 599.3 | 0.2511 | 6.486 | 608.2 | 0.2505 |

| Statepoint 10 (495.2, EOC Cy 7) | | | |
|---------------------------------|---------------------|-------------------|------------------------------------|
| Node No. | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 10.001 | 638.7 | 0.7396 |
| 2 | 32.838 | 800.7 | 0.7396 |
| 3 | 42.250 | 803.6 | 0.7384 |
| 4 | 46.966 | 817.8 | 0.7094 |
| 5 | 49.154 | 825.6 | 0.6698 |
| 6 | 50.252 | 835.3 | 0.6253 |
| 7 | 50.954 | 847.8 | 0.5808 |
| 8 | 51.620 | 862.4 | 0.5393 |
| 9 | 53.192 | 882.2 | 0.5014 |
| 10 | 53.519 | 898.7 | 0.4677 |
| 11 | 53.547 | 914.5 | 0.4382 |
| 12 | 53.387 | 930.4 | 0.4122 |
| 13 | 53.074 | 946.3 | 0.3892 |
| 14 | 52.615 | 962.1 | 0.3688 |
| 15 | 51.978 | 977.5 | 0.3507 |
| 16 | 51.086 | 991.6 | 0.3346 |
| 17 | 49.813 | 1002.5 | 0.3202 |
| 18 | 47.969 | 1008.6 | 0.3078 |
| 19 | 46.032 | 1002.7 | 0.2962 |
| 20 | 43.699 | 983.7 | 0.2856 |
| 21 | 40.016 | 941.0 | 0.2759 |
| 22 | 35.258 | 887.8 | 0.2680 |
| 23 | 28.991 | 815.7 | 0.2612 |
| 24 | 13.216 | 672.6 | 0.2561 |
| 25 | 7.588 | 622.9 | 0.2527 |

Table 4-8. LS1 Burnup and TH Feedback Parameters Assembly A7

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.160 | 627.0 | 0.7396 | 2.419 | 652.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.977 | 815.8 | 0.7396 | 8.327 | 932.0 | 0.7396 |
| 3 | 0.000 | | 0.7311 | 5.606 | 885.8 | 0.7374 | 11.903 | 1064.7 | 0.7276 |
| 4 | 0.000 | Data | 0.6677 | 6.848 | 979.3 | 0.7040 | 14.307 | 1199.3 | 0.6818 |
| 5 | 0.000 | Not | 0.5976 | 7.693 | 1049.0 | 0.6547 | 15.535 | 1247.3 | 0.6216 |
| 6 | 0.000 | Required | 0.5325 | 8.248 | 1097.6 | 0.5962 | 16.104 | 1249.1 | 0.5587 |
| 7 | 0.000 | | 0.4783 | 8.607 | 1130.4 | 0.5371 | 16.379 | 1238.4 | 0.5010 |
| 8 | 0.000 | | 0.4340 | 8.865 | 1154.5 | 0.4842 | 16.557 | 1228.3 | 0.4518 |
| 9 | 0.000 | | 0.3973 | 9.301 | 1196.5 | 0.4385 | 17.090 | 1240.5 | 0.4101 |
| 10 | 0.000 | | 0.3665 | 9.298 | 1196.3 | 0.3996 | 17.022 | 1232.3 | 0.3744 |
| 11 | 0.000 | | 0.3411 | 9.153 | 1182.1 | 0.3671 | 16.818 | 1224.9 | 0.3444 |
| 12 | 0.000 | | 0.3199 | 8.923 | 1160.0 | 0.3400 | 16.534 | 1218.1 | 0.3189 |
| 13 | 0.000 | | 0.3023 | 8.649 | 1134.3 | 0.3170 | 16.212 | 1212.1 | 0.2972 |
| 14 | 0.000 | | 0.2873 | 8.346 | 1106.5 | 0.2976 | 15.846 | 1204.3 | 0.2784 |
| 15 | 0.000 | | 0.2746 | 8.017 | 1077.1 | 0.2810 | 15.410 | 1191.2 | 0.2623 |
| 16 | 0.000 | | 0.2638 | 7.655 | 1045.8 | 0.2667 | 14.873 | 1170.0 | 0.2482 |
| 17 | 0.000 | | 0.2547 | 7.237 | 1010.8 | 0.2545 | 14.189 | 1138.5 | 0.2359 |
| 18 | 0.000 | | 0.2471 | 6.619 | 961.3 | 0.2439 | 13.130 | 1088.3 | 0.2253 |
| 19 | 0.000 | | 0.2408 | 6.237 | 932.1 | 0.2349 | 12.382 | 1048.3 | 0.2163 |
| 20 | 0.000 | | 0.2349 | 5.900 | 907.0 | 0.2268 | 11.667 | 1008.8 | 0.2084 |
| 21 | 0.000 | | 0.2298 | 5.505 | 878.6 | 0.2196 | 10.809 | 962.4 | 0.2016 |
| 22 | 0.000 | | 0.2256 | 4.887 | 836.1 | 0.2133 | 9.519 | 899.3 | 0.1958 |
| 23 | 0.000 | | 0.2221 | 4.199 | 791.2 | 0.2082 | 8.070 | 833.0 | 0.1911 |
| 24 | 0.000 | | 0.2200 | 1.953 | 660.9 | 0.2043 | 3.801 | 680.2 | 0.1875 |
| 25 | 0.000 | | 0.2188 | 1.228 | 623.4 | 0.2028 | 2.362 | 633.0 | 0.1861 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.231 | 652.5 | 0.7396 | 6.035 | 657.1 | 0.7396 | 6.920 | 614.0 | 0.7396 |
| 2 | 14.845 | 952.1 | 0.7396 | 20.927 | 943.2 | 0.7396 | 23.739 | 744.9 | 0.7396 |
| 3 | 20.571 | 1036.7 | 0.7255 | 28.035 | 978.5 | 0.7246 | 31.477 | 757.9 | 0.7274 |
| 4 | 23.829 | 1101.7 | 0.6782 | 31.758 | 1013.0 | 0.6776 | 35.561 | 781.5 | 0.6843 |
| 5 | 25.246 | 1116.6 | 0.6175 | 33.330 | 1024.7 | 0.6185 | 37.467 | 804.1 | 0.6299 |
| 6 | 25.768 | 1112.9 | 0.5551 | 33.955 | 1032.6 | 0.5582 | 38.426 | 827.3 | 0.5745 |
| 7 | 25.967 | 1106.9 | 0.4988 | 34.279 | 1042.3 | 0.5040 | 39.042 | 848.2 | 0.5240 |
| 8 | 26.125 | 1105.3 | 0.4511 | 34.583 | 1053.8 | 0.4578 | 39.573 | 864.8 | 0.4800 |
| 9 | 26.821 | 1118.2 | 0.4108 | 35.552 | 1075.5 | 0.4184 | 40.793 | 883.6 | 0.4415 |
| 10 | 26.724 | 1115.9 | 0.3762 | 35.604 | 1087.6 | 0.3844 | 40.968 | 892.9 | 0.4077 |
| 11 | 26.436 | 1109.2 | 0.3471 | 35.460 | 1099.3 | 0.3555 | 40.877 | 897.0 | 0.3783 |
| 12 | 26.032 | 1099.8 | 0.3222 | 35.195 | 1110.9 | 0.3307 | 40.606 | 896.5 | 0.3527 |
| 13 | 25.565 | 1088.5 | 0.3009 | 34.859 | 1121.8 | 0.3092 | 40.225 | 893.1 | 0.3303 |
| 14 | 25.039 | 1076.2 | 0.2825 | 34.451 | 1131.8 | 0.2904 | 39.743 | 887.4 | 0.3107 |
| 15 | 24.430 | 1063.0 | 0.2665 | 33.941 | 1140.2 | 0.2739 | 39.139 | 880.3 | 0.2934 |
| 16 | 23.707 | 1049.0 | 0.2525 | 33.295 | 1146.9 | 0.2594 | 38.374 | 871.4 | 0.2782 |
| 17 | 22.827 | 1034.5 | 0.2403 | 32.442 | 1149.2 | 0.2465 | 37.380 | 860.9 | 0.2647 |
| 18 | 21.558 | 1019.3 | 0.2296 | 31.147 | 1146.9 | 0.2351 | 35.936 | 850.0 | 0.2529 |
| 19 | 20.526 | 999.0 | 0.2202 | 29.917 | 1130.0 | 0.2250 | 34.534 | 837.7 | 0.2423 |
| 20 | 19.410 | 971.0 | 0.2120 | 28.406 | 1097.0 | 0.2160 | 32.823 | 823.5 | 0.2330 |
| 21 | 17.847 | 924.0 | 0.2048 | 26.055 | 1034.3 | 0.2081 | 30.121 | 799.2 | 0.2247 |
| 22 | 15.639 | 866.3 | 0.1986 | 22.911 | 964.7 | 0.2014 | 26.541 | 770.1 | 0.2179 |
| 23 | 13.057 | 800.4 | 0.1937 | 19.104 | 881.1 | 0.1960 | 22.088 | 728.9 | 0.2119 |
| 24 | 6.108 | 663.9 | 0.1902 | 8.933 | 695.5 | 0.1922 | 10.299 | 634.8 | 0.2078 |
| 25 | 3.719 | 621.0 | 0.1887 | 5.379 | 638.3 | 0.1905 | 6.125 | 601.7 | 0.2046 |

Table 4-8. LS1 Burnup and TH Feedback Parameters Assembly A7 (Continued)

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|----------------------------------------|-------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 7.571 | 625.4 | 0.7396 | 8.028 | 588.0 | 0.7396 | 8.218 | 579.8 | 0.7396 |
| 2 | 25.701 | 774.5 | 0.7396 | 27.023 | 643.2 | 0.7396 | 27.559 | 616.6 | 0.7396 |
| 3 | 33.773 | 778.3 | 0.7288 | 35.292 | 644.5 | 0.7300 | 35.901 | 617.8 | 0.7305 |
| 4 | 37.954 | 788.9 | 0.6874 | 39.563 | 649.5 | 0.6902 | 40.204 | 620.8 | 0.6912 |
| 5 | 39.899 | 793.2 | 0.6351 | 41.618 | 655.8 | 0.6400 | 42.302 | 624.8 | 0.6419 |
| 6 | 40.889 | 796.6 | 0.5816 | 42.754 | 664.1 | 0.5891 | 43.496 | 630.2 | 0.5920 |
| 7 | 41.539 | 800.4 | 0.5326 | 43.565 | 673.5 | 0.5428 | 44.374 | 636.5 | 0.5467 |
| 8 | 42.113 | 805.2 | 0.4897 | 44.306 | 683.3 | 0.5025 | 45.188 | 643.4 | 0.5074 |
| 9 | 43.418 | 814.8 | 0.4518 | 45.806 | 694.9 | 0.4669 | 46.778 | 652.1 | 0.4729 |
| 10 | 43.637 | 819.8 | 0.4184 | 46.177 | 704.1 | 0.4357 | 47.230 | 659.9 | 0.4427 |
| 11 | 43.588 | 824.6 | 0.3892 | 46.257 | 712.0 | 0.4083 | 47.393 | 668.1 | 0.4165 |
| 12 | 43.356 | 829.1 | 0.3637 | 46.132 | 718.6 | 0.3841 | 47.352 | 676.4 | 0.3934 |
| 13 | 43.011 | 833.3 | 0.3414 | 45.865 | 723.5 | 0.3627 | 47.167 | 684.6 | 0.3729 |
| 14 | 42.560 | 836.9 | 0.3217 | 45.464 | 726.6 | 0.3435 | 46.844 | 692.5 | 0.3547 |
| 15 | 41.979 | 839.6 | 0.3043 | 44.905 | 728.0 | 0.3263 | 46.357 | 699.9 | 0.3383 |
| 16 | 41.228 | 841.2 | 0.2889 | 44.152 | 727.9 | 0.3109 | 45.665 | 706.2 | 0.3234 |
| 17 | 40.234 | 841.2 | 0.2754 | 43.130 | 726.1 | 0.2970 | 44.696 | 711.7 | 0.3102 |
| 18 | 38.778 | 839.8 | 0.2635 | 41.630 | 723.4 | 0.2851 | 43.236 | 715.9 | 0.2987 |
| 19 | 37.335 | 835.0 | 0.2529 | 40.101 | 718.0 | 0.2740 | 41.718 | 717.1 | 0.2878 |
| 20 | 35.548 | 826.2 | 0.2434 | 38.189 | 710.3 | 0.2640 | 39.784 | 714.8 | 0.2778 |
| 21 | 32.670 | 806.2 | 0.2349 | 35.084 | 696.5 | 0.2550 | 36.590 | 705.5 | 0.2687 |
| 22 | 28.858 | 780.6 | 0.2281 | 31.000 | 680.3 | 0.2478 | 32.378 | 692.3 | 0.2616 |
| 23 | 24.022 | 740.0 | 0.2220 | 25.735 | 655.4 | 0.2406 | 26.861 | 667.1 | 0.2540 |
| 24 | 11.203 | 641.0 | 0.2177 | 11.941 | 601.8 | 0.2349 | 12.430 | 606.8 | 0.2472 |
| 25 | 6.619 | 604.9 | 0.2138 | 6.988 | 582.3 | 0.2286 | 7.232 | 584.7 | 0.2392 |
| Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | | |
| Node No. | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 8.443 | 574.2 | 0.7396 | | | | | | |
| 2 | 28.177 | 598.9 | 0.7396 | | | | | | |
| 3 | 36.585 | 599.8 | 0.731 | | | | | | |
| 4 | 40.905 | 600.8 | 0.6924 | | | | | | |
| 5 | 43.033 | 602.4 | 0.6438 | | | | | | |
| 6 | 44.277 | 605.2 | 0.5948 | | | | | | |
| 7 | 45.225 | 609.0 | 0.5506 | | | | | | |
| 8 | 46.125 | 613.7 | 0.5124 | | | | | | |
| 9 | 47.828 | 620.0 | 0.4790 | | | | | | |
| 10 | 48.392 | 626.3 | 0.4501 | | | | | | |
| 11 | 48.680 | 633.3 | 0.4253 | | | | | | |
| 12 | 48.777 | 641.2 | 0.4039 | | | | | | |
| 13 | 48.745 | 650.0 | 0.3852 | | | | | | |
| 14 | 48.586 | 659.6 | 0.3688 | | | | | | |
| 15 | 48.272 | 669.8 | 0.3544 | | | | | | |
| 16 | 47.760 | 680.6 | 0.3416 | | | | | | |
| 17 | 46.970 | 691.5 | 0.3303 | | | | | | |
| 18 | 45.688 | 702.5 | 0.3210 | | | | | | |
| 19 | 44.306 | 711.0 | 0.3118 | | | | | | |
| 20 | 42.447 | 715.8 | 0.3031 | | | | | | |
| 21 | 39.197 | 712.2 | 0.2948 | | | | | | |
| 22 | 34.846 | 703.5 | 0.2885 | | | | | | |
| 23 | 28.927 | 678.9 | 0.2804 | | | | | | |
| 24 | 13.333 | 611.9 | 0.2720 | | | | | | |
| 25 | 7.677 | 586.9 | 0.2606 | | | | | | |

Table 4-9. LS1 Burnup and TH Feedback Parameters Assembly A8

| Node No. | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|-------------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 0.975 | 616.0 | 0.7396 | 2.087 | 641.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.354 | 770.4 | 0.7396 | 7.218 | 882.0 | 0.7396 |
| 3 | 0.000 | | 0.7384 | 4.777 | 877.6 | 0.7396 | 10.479 | 1085.3 | 0.7332 |
| 4 | 0.000 | Data | 0.6838 | 5.925 | 908.9 | 0.7184 | 12.897 | 1140.9 | 0.6949 |
| 5 | 0.000 | Not | 0.6186 | 6.767 | 972.9 | 0.6797 | 14.267 | 1204.3 | 0.6428 |
| 6 | 0.000 | Required | 0.5553 | 7.367 | 1021.5 | 0.6305 | 14.956 | 1215.4 | 0.5858 |
| 7 | 0.000 | | 0.5008 | 7.779 | 1056.4 | 0.5768 | 15.297 | 1206.5 | 0.5309 |
| 8 | 0.000 | | 0.4556 | 8.075 | 1082.2 | 0.5247 | 15.509 | 1196.2 | 0.4817 |
| 9 | 0.000 | | 0.4176 | 8.517 | 1122.1 | 0.4776 | 16.039 | 1207.0 | 0.4390 |
| 10 | 0.000 | | 0.3857 | 8.516 | 1122.0 | 0.4367 | 15.947 | 1195.8 | 0.4018 |
| 11 | 0.000 | | 0.3593 | 8.359 | 1107.7 | 0.4025 | 15.688 | 1183.4 | 0.3703 |
| 12 | 0.000 | | 0.3374 | 8.110 | 1085.3 | 0.3739 | 15.333 | 1170.6 | 0.3438 |
| 13 | 0.000 | | 0.3189 | 7.808 | 1058.9 | 0.3497 | 14.920 | 1157.3 | 0.3211 |
| 14 | 0.000 | | 0.3034 | 7.478 | 1030.8 | 0.3294 | 14.470 | 1143.2 | 0.3016 |
| 15 | 0.000 | | 0.2902 | 7.132 | 1002.2 | 0.3120 | 13.993 | 1128.0 | 0.2847 |
| 16 | 0.000 | | 0.2789 | 6.772 | 973.3 | 0.2971 | 13.478 | 1110.2 | 0.2701 |
| 17 | 0.000 | | 0.2694 | 6.378 | 942.7 | 0.2844 | 12.879 | 1087.2 | 0.2572 |
| 18 | 0.000 | | 0.2615 | 5.829 | 901.9 | 0.2734 | 11.966 | 1047.5 | 0.2459 |
| 19 | 0.000 | | 0.2548 | 5.552 | 882.0 | 0.2639 | 11.424 | 1019.6 | 0.2365 |
| 20 | 0.000 | | 0.2492 | 5.362 | 868.6 | 0.2552 | 10.942 | 989.8 | 0.2282 |
| 21 | 0.000 | | 0.2443 | 5.111 | 851.2 | 0.2471 | 10.286 | 950.0 | 0.2211 |
| 22 | 0.000 | | 0.2402 | 4.596 | 816.8 | 0.2400 | 9.120 | 889.5 | 0.2149 |
| 23 | 0.000 | | 0.2365 | 3.960 | 776.2 | 0.2341 | 7.727 | 824.4 | 0.2100 |
| 24 | 0.000 | | 0.2342 | 1.835 | 654.7 | 0.2298 | 3.614 | 675.5 | 0.2060 |
| 25 | 0.000 | | 0.2330 | 1.139 | 618.9 | 0.2280 | 2.221 | 629.7 | 0.2045 |
| Node No. | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 3.923 | 653.8 | 0.7396 | 5.319 | 634.2 | 0.7396 | 7.015 | 666.6 | 0.7396 |
| 2 | 13.824 | 958.7 | 0.7396 | 18.717 | 854.4 | 0.7396 | 24.113 | 957.5 | 0.7396 |
| 3 | 19.456 | 1059.8 | 0.7276 | 25.640 | 890.0 | 0.7295 | 31.992 | 972.0 | 0.7284 |
| 4 | 22.779 | 1130.3 | 0.6834 | 29.514 | 927.0 | 0.6881 | 36.068 | 989.1 | 0.6872 |
| 5 | 24.281 | 1139.4 | 0.6270 | 31.236 | 943.6 | 0.6348 | 37.803 | 990.2 | 0.6347 |
| 6 | 24.814 | 1128.4 | 0.5683 | 31.935 | 953.9 | 0.5792 | 38.496 | 989.7 | 0.5801 |
| 7 | 25.016 | 1117.2 | 0.5143 | 32.268 | 963.2 | 0.5273 | 38.876 | 993.8 | 0.5294 |
| 8 | 25.170 | 1112.6 | 0.4672 | 32.573 | 974.1 | 0.4815 | 39.210 | 996.3 | 0.4845 |
| 9 | 25.851 | 1124.7 | 0.4267 | 33.526 | 994.0 | 0.4417 | 40.281 | 1006.5 | 0.4451 |
| 10 | 25.727 | 1122.1 | 0.3916 | 33.547 | 1004.8 | 0.4070 | 40.311 | 1007.2 | 0.4110 |
| 11 | 25.387 | 1115.6 | 0.3616 | 33.341 | 1014.9 | 0.3773 | 40.063 | 1003.6 | 0.3814 |
| 12 | 24.912 | 1106.1 | 0.3362 | 32.993 | 1024.5 | 0.3518 | 39.640 | 997.1 | 0.3561 |
| 13 | 24.353 | 1094.7 | 0.3144 | 32.558 | 1034.0 | 0.3297 | 39.108 | 988.8 | 0.3340 |
| 14 | 23.731 | 1081.4 | 0.2955 | 32.052 | 1043.0 | 0.3105 | 38.490 | 979.3 | 0.3148 |
| 15 | 23.049 | 1065.7 | 0.2792 | 31.476 | 1051.3 | 0.2936 | 37.785 | 968.4 | 0.2979 |
| 16 | 22.287 | 1047.2 | 0.2649 | 30.800 | 1058.1 | 0.2787 | 36.964 | 956.4 | 0.2830 |
| 17 | 21.380 | 1024.5 | 0.2523 | 29.942 | 1062.0 | 0.2655 | 35.981 | 946.2 | 0.2700 |
| 18 | 20.069 | 996.1 | 0.2413 | 28.627 | 1061.7 | 0.2538 | 34.701 | 949.0 | 0.2592 |
| 19 | 19.013 | 960.6 | 0.2320 | 27.392 | 1047.6 | 0.2436 | 33.312 | 936.6 | 0.2489 |
| 20 | 17.894 | 918.4 | 0.2240 | 25.890 | 1018.0 | 0.2345 | 31.551 | 915.9 | 0.2396 |
| 21 | 16.389 | 865.3 | 0.2171 | 23.625 | 962.1 | 0.2265 | 28.812 | 879.5 | 0.2314 |
| 22 | 14.252 | 808.5 | 0.2112 | 20.594 | 900.5 | 0.2199 | 25.190 | 836.2 | 0.2247 |
| 23 | 11.800 | 751.0 | 0.2067 | 16.988 | 827.1 | 0.2145 | 20.729 | 777.4 | 0.2190 |
| 24 | 5.462 | 642.9 | 0.2031 | 7.791 | 670.6 | 0.2106 | 9.468 | 652.0 | 0.2150 |
| 25 | 3.302 | 609.0 | 0.2018 | 4.638 | 623.1 | 0.2087 | 5.575 | 611.7 | 0.2129 |

Table 4-9. LS1 Burnup and TH Feedback Parameters Assembly A8 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|---------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 7.803 | 639.8 | 0.7396 | 8.401 | 596.7 | 0.7396 | 8.626 | 583.4 | 0.7396 |
| 2 | 26.467 | 824.6 | 0.7396 | 28.242 | 673.7 | 0.7396 | 28.889 | 628.7 | 0.7396 |
| 3 | 34.740 | 828.9 | 0.7293 | 36.841 | 677.9 | 0.7304 | 37.594 | 631.2 | 0.7309 |
| 4 | 38.932 | 842.4 | 0.6893 | 41.201 | 687.8 | 0.6917 | 42.017 | 637.2 | 0.6929 |
| 5 | 40.735 | 850.4 | 0.6384 | 43.166 | 697.5 | 0.6424 | 44.053 | 643.9 | 0.6446 |
| 6 | 41.493 | 858.2 | 0.5853 | 44.089 | 707.5 | 0.5909 | 45.063 | 652.3 | 0.5941 |
| 7 | 41.931 | 865.2 | 0.5358 | 44.680 | 717.0 | 0.5425 | 45.748 | 661.4 | 0.5467 |
| 8 | 42.323 | 872.2 | 0.4916 | 45.204 | 725.2 | 0.4991 | 46.366 | 670.6 | 0.5041 |
| 9 | 43.488 | 883.8 | 0.4527 | 46.512 | 734.2 | 0.4603 | 47.780 | 681.2 | 0.4659 |
| 10 | 43.558 | 888.7 | 0.4187 | 46.664 | 739.4 | 0.4263 | 48.017 | 689.8 | 0.4322 |
| 11 | 43.341 | 892.6 | 0.3893 | 46.504 | 743.1 | 0.3967 | 47.936 | 697.9 | 0.4028 |
| 12 | 42.943 | 895.7 | 0.3638 | 46.141 | 745.3 | 0.3710 | 47.648 | 705.6 | 0.3772 |
| 13 | 42.430 | 898.1 | 0.3417 | 45.641 | 746.2 | 0.3486 | 47.219 | 713.0 | 0.3548 |
| 14 | 41.825 | 899.8 | 0.3223 | 45.027 | 745.6 | 0.3291 | 46.667 | 719.5 | 0.3351 |
| 15 | 41.130 | 901.0 | 0.3053 | 44.299 | 743.5 | 0.3118 | 45.989 | 724.8 | 0.3178 |
| 16 | 40.332 | 903.9 | 0.2904 | 43.444 | 739.8 | 0.2965 | 45.168 | 728.5 | 0.3024 |
| 17 | 39.497 | 922.9 | 0.2778 | 42.519 | 734.1 | 0.2836 | 44.256 | 729.9 | 0.2891 |
| 18 | 38.653 | 981.3 | 0.2683 | 41.535 | 725.2 | 0.2735 | 43.252 | 727.7 | 0.2787 |
| 19 | 37.315 | 988.4 | 0.2578 | 40.060 | 716.7 | 0.2628 | 41.747 | 724.5 | 0.2678 |
| 20 | 35.424 | 970.5 | 0.2481 | 38.003 | 706.5 | 0.2529 | 39.634 | 718.6 | 0.2576 |
| 21 | 32.404 | 932.8 | 0.2394 | 34.717 | 690.4 | 0.2440 | 36.223 | 705.5 | 0.2486 |
| 22 | 28.407 | 885.0 | 0.2323 | 30.418 | 672.6 | 0.2368 | 31.765 | 689.2 | 0.2412 |
| 23 | 23.363 | 815.8 | 0.2261 | 24.966 | 649.2 | 0.2304 | 26.062 | 664.1 | 0.2347 |
| 24 | 10.672 | 668.5 | 0.2218 | 11.380 | 600.2 | 0.2260 | 11.868 | 606.7 | 0.2301 |
| 25 | 6.243 | 620.0 | 0.2192 | 6.620 | 582.7 | 0.2230 | 6.878 | 586.0 | 0.2268 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 8.891 | 576.6 | 0.7396 | | | | | | |
| 2 | 29.624 | 606.5 | 0.7396 | | | | | | |
| 3 | 38.422 | 607.7 | 0.7314 | | | | | | |
| 4 | 42.889 | 610.2 | 0.6942 | | | | | | |
| 5 | 44.978 | 613.1 | 0.6469 | | | | | | |
| 6 | 46.070 | 617.6 | 0.5976 | | | | | | |
| 7 | 46.859 | 623.4 | 0.5515 | | | | | | |
| 8 | 47.601 | 630.4 | 0.5102 | | | | | | |
| 9 | 49.166 | 639.0 | 0.4733 | | | | | | |
| 10 | 49.544 | 647.1 | 0.4409 | | | | | | |
| 11 | 49.611 | 655.7 | 0.4125 | | | | | | |
| 12 | 49.475 | 664.6 | 0.3879 | | | | | | |
| 13 | 49.201 | 673.8 | 0.3663 | | | | | | |
| 14 | 48.804 | 683.2 | 0.3471 | | | | | | |
| 15 | 48.280 | 692.6 | 0.3301 | | | | | | |
| 16 | 47.607 | 701.7 | 0.3149 | | | | | | |
| 17 | 46.825 | 709.8 | 0.3018 | | | | | | |
| 18 | 45.914 | 715.7 | 0.2911 | | | | | | |
| 19 | 44.485 | 720.5 | 0.2801 | | | | | | |
| 20 | 42.393 | 721.9 | 0.2698 | | | | | | |
| 21 | 38.868 | 714.6 | 0.2605 | | | | | | |
| 22 | 34.214 | 702.3 | 0.2530 | | | | | | |
| 23 | 28.104 | 677.4 | 0.2461 | | | | | | |
| 24 | 12.784 | 612.6 | 0.2410 | | | | | | |
| 25 | 7.357 | 588.7 | 0.2366 | | | | | | |

Table 4-10. LS1 Burnup and TH Feedback Parameters Assembly A9

| Node No. | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|-------------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.061 | 621.1 | 0.7396 | 2.231 | 645.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.634 | 790.5 | 0.7396 | 7.647 | 897.1 | 0.7396 |
| 3 | 0.000 | | 0.7356 | 5.121 | 905.4 | 0.7396 | 10.943 | 1099.9 | 0.7309 |
| 4 | 0.000 | Data | 0.6777 | 6.274 | 934.9 | 0.7127 | 13.271 | 1143.8 | 0.6902 |
| 5 | 0.000 | Not | 0.6113 | 7.096 | 999.2 | 0.6703 | 14.555 | 1199.3 | 0.6363 |
| 6 | 0.000 | Required | 0.5477 | 7.678 | 1047.7 | 0.6175 | 15.212 | 1208.5 | 0.5781 |
| 7 | 0.000 | | 0.4935 | 8.078 | 1082.5 | 0.5614 | 15.556 | 1201.6 | 0.5223 |
| 8 | 0.000 | | 0.4487 | 8.373 | 1108.9 | 0.5086 | 15.785 | 1193.5 | 0.4728 |
| 9 | 0.000 | | 0.4110 | 8.831 | 1151.3 | 0.4617 | 16.350 | 1206.7 | 0.4300 |
| 10 | 0.000 | | 0.3794 | 8.857 | 1153.8 | 0.4214 | 16.314 | 1199.0 | 0.3931 |
| 11 | 0.000 | | 0.3532 | 8.739 | 1142.7 | 0.3876 | 16.140 | 1192.2 | 0.3618 |
| 12 | 0.000 | | 0.3313 | 8.541 | 1124.3 | 0.3592 | 15.905 | 1187.6 | 0.3353 |
| 13 | 0.000 | | 0.3130 | 8.312 | 1103.4 | 0.3350 | 15.677 | 1187.8 | 0.3123 |
| 14 | 0.000 | | 0.2975 | 8.056 | 1080.6 | 0.3144 | 15.422 | 1187.9 | 0.2926 |
| 15 | 0.000 | | 0.2844 | 7.759 | 1054.7 | 0.2969 | 15.077 | 1182.0 | 0.2753 |
| 16 | 0.000 | | 0.2732 | 7.402 | 1024.4 | 0.2818 | 14.579 | 1165.1 | 0.2603 |
| 17 | 0.000 | | 0.2637 | 6.982 | 990.0 | 0.2687 | 13.917 | 1136.5 | 0.2472 |
| 18 | 0.000 | | 0.2558 | 6.371 | 942.2 | 0.2577 | 12.883 | 1088.4 | 0.2358 |
| 19 | 0.000 | | 0.2492 | 6.007 | 914.9 | 0.2481 | 12.172 | 1050.5 | 0.2263 |
| 20 | 0.000 | | 0.2436 | 5.703 | 892.8 | 0.2397 | 11.501 | 1011.9 | 0.2181 |
| 21 | 0.000 | | 0.2385 | 5.348 | 867.6 | 0.2321 | 10.683 | 965.5 | 0.2110 |
| 22 | 0.000 | | 0.2341 | 4.767 | 828.1 | 0.2255 | 9.418 | 901.0 | 0.2049 |
| 23 | 0.000 | | 0.2305 | 4.104 | 785.2 | 0.2200 | 7.982 | 833.6 | 0.2001 |
| 24 | 0.000 | | 0.2282 | 1.907 | 658.5 | 0.2160 | 3.750 | 679.9 | 0.1963 |
| 25 | 0.000 | | 0.2270 | 1.192 | 621.5 | 0.2143 | 2.319 | 632.6 | 0.1949 |
| Node No. | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.112 | 656.2 | 0.7396 | 5.725 | 646.3 | 0.7396 | 7.421 | 666.6 | 0.7396 |
| 2 | 14.381 | 968.4 | 0.7396 | 19.895 | 899.7 | 0.7396 | 25.261 | 954.8 | 0.7396 |
| 3 | 19.941 | 1061.3 | 0.7260 | 26.801 | 935.6 | 0.7268 | 33.293 | 983.9 | 0.7269 |
| 4 | 23.124 | 1128.0 | 0.6804 | 30.505 | 972.5 | 0.6829 | 37.353 | 1014.6 | 0.6837 |
| 5 | 24.548 | 1139.3 | 0.6225 | 32.134 | 987.4 | 0.6272 | 39.017 | 1017.7 | 0.6292 |
| 6 | 25.121 | 1132.5 | 0.5629 | 32.831 | 996.6 | 0.5697 | 39.632 | 1010.5 | 0.5728 |
| 7 | 25.374 | 1125.1 | 0.5080 | 33.212 | 1006.1 | 0.5165 | 39.921 | 1002.5 | 0.5203 |
| 8 | 25.581 | 1123.4 | 0.4605 | 33.575 | 1017.9 | 0.4702 | 40.241 | 998.8 | 0.4746 |
| 9 | 26.316 | 1137.1 | 0.4199 | 34.588 | 1039.2 | 0.4303 | 41.346 | 1006.7 | 0.4351 |
| 10 | 26.256 | 1135.1 | 0.3848 | 34.683 | 1051.3 | 0.3957 | 41.400 | 1003.2 | 0.4009 |
| 11 | 26.001 | 1128.6 | 0.3549 | 34.576 | 1063.0 | 0.3661 | 41.208 | 995.8 | 0.3715 |
| 12 | 25.643 | 1118.7 | 0.3295 | 34.359 | 1074.3 | 0.3406 | 40.879 | 986.2 | 0.3462 |
| 13 | 25.257 | 1106.2 | 0.3076 | 34.105 | 1084.9 | 0.3185 | 40.495 | 975.2 | 0.3242 |
| 14 | 24.820 | 1092.0 | 0.2886 | 33.791 | 1095.0 | 0.2991 | 40.044 | 963.8 | 0.3050 |
| 15 | 24.277 | 1076.7 | 0.2720 | 33.367 | 1104.8 | 0.2821 | 39.471 | 951.5 | 0.2880 |
| 16 | 23.567 | 1060.6 | 0.2576 | 32.773 | 1114.4 | 0.2671 | 38.708 | 937.8 | 0.2730 |
| 17 | 22.663 | 1042.5 | 0.2448 | 31.965 | 1122.5 | 0.2538 | 37.691 | 921.1 | 0.2597 |
| 18 | 21.344 | 1021.6 | 0.2336 | 30.695 | 1126.6 | 0.2420 | 36.193 | 903.2 | 0.2479 |
| 19 | 20.238 | 993.5 | 0.2241 | 29.451 | 1115.0 | 0.2316 | 34.715 | 885.3 | 0.2375 |
| 20 | 19.038 | 957.0 | 0.2158 | 27.888 | 1085.1 | 0.2223 | 32.911 | 867.2 | 0.2284 |
| 21 | 17.424 | 904.9 | 0.2087 | 25.489 | 1023.3 | 0.2144 | 30.110 | 837.9 | 0.2204 |
| 22 | 15.210 | 846.7 | 0.2027 | 22.338 | 954.4 | 0.2077 | 26.426 | 800.7 | 0.2138 |
| 23 | 12.676 | 784.2 | 0.1980 | 18.589 | 872.4 | 0.2023 | 21.915 | 750.4 | 0.2082 |
| 24 | 5.921 | 657.6 | 0.1945 | 8.662 | 691.2 | 0.1986 | 10.205 | 644.5 | 0.2045 |
| 25 | 3.600 | 617.7 | 0.1931 | 5.201 | 635.5 | 0.1968 | 6.065 | 607.9 | 0.2024 |

Table 4-10. LS1 Burnup and TH Feedback Parameters Assembly A9 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|---------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 8.517 | 673.1 | 0.7396 | 9.034 | 591.7 | 0.7396 | 9.254 | 582.9 | 0.7396 |
| 2 | 28.534 | 953.5 | 0.7396 | 29.974 | 651.0 | 0.7396 | 30.571 | 623.2 | 0.7396 |
| 3 | 37.164 | 970.2 | 0.7269 | 38.816 | 652.0 | 0.7282 | 39.494 | 624.2 | 0.7287 |
| 4 | 41.380 | 991.8 | 0.6842 | 43.159 | 659.2 | 0.6872 | 43.883 | 628.5 | 0.6883 |
| 5 | 43.050 | 992.6 | 0.6303 | 44.980 | 667.9 | 0.6357 | 45.759 | 633.7 | 0.6377 |
| 6 | 43.623 | 986.7 | 0.5746 | 45.742 | 678.9 | 0.5828 | 46.596 | 640.8 | 0.5860 |
| 7 | 43.869 | 980.8 | 0.5227 | 46.200 | 691.5 | 0.5342 | 47.136 | 648.6 | 0.5385 |
| 8 | 44.166 | 977.6 | 0.4774 | 46.713 | 704.6 | 0.4919 | 47.737 | 657.1 | 0.4975 |
| 9 | 45.314 | 983.5 | 0.4380 | 48.097 | 719.1 | 0.4551 | 49.223 | 667.1 | 0.4619 |
| 10 | 45.358 | 982.2 | 0.4041 | 48.320 | 730.3 | 0.4234 | 49.535 | 675.9 | 0.4313 |
| 11 | 45.148 | 979.7 | 0.3748 | 48.257 | 739.6 | 0.3957 | 49.558 | 684.5 | 0.4049 |
| 12 | 44.798 | 976.8 | 0.3497 | 48.018 | 746.7 | 0.3716 | 49.405 | 693.2 | 0.3817 |
| 13 | 44.390 | 973.5 | 0.3277 | 47.686 | 751.7 | 0.3502 | 49.154 | 701.6 | 0.3612 |
| 14 | 43.911 | 969.6 | 0.3084 | 47.248 | 754.3 | 0.3310 | 48.792 | 709.4 | 0.3428 |
| 15 | 43.306 | 965.3 | 0.2915 | 46.653 | 755.0 | 0.3139 | 48.268 | 716.9 | 0.3263 |
| 16 | 42.501 | 959.6 | 0.2764 | 45.833 | 754.0 | 0.2985 | 47.509 | 723.3 | 0.3114 |
| 17 | 41.418 | 950.7 | 0.2631 | 44.712 | 751.5 | 0.2848 | 46.437 | 728.6 | 0.2980 |
| 18 | 39.833 | 939.1 | 0.2513 | 43.072 | 748.0 | 0.2728 | 44.838 | 733.0 | 0.2864 |
| 19 | 38.237 | 923.7 | 0.2409 | 41.376 | 741.5 | 0.2619 | 43.155 | 734.4 | 0.2756 |
| 20 | 36.277 | 903.7 | 0.2317 | 39.270 | 732.2 | 0.2522 | 41.029 | 732.2 | 0.2660 |
| 21 | 33.199 | 869.3 | 0.2236 | 35.937 | 716.3 | 0.2436 | 37.602 | 722.2 | 0.2574 |
| 22 | 29.162 | 827.5 | 0.2169 | 31.589 | 697.3 | 0.2365 | 33.116 | 707.7 | 0.2505 |
| 23 | 24.139 | 770.5 | 0.2113 | 26.078 | 668.4 | 0.2299 | 27.328 | 679.4 | 0.2434 |
| 24 | 11.251 | 653.9 | 0.2075 | 12.093 | 607.4 | 0.2248 | 12.642 | 612.3 | 0.2374 |
| 25 | 6.655 | 613.2 | 0.2053 | 7.080 | 585.2 | 0.2202 | 7.355 | 587.5 | 0.2310 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.529 | 577.3 | 0.7396 | | | | | | |
| 2 | 31.297 | 605.9 | 0.7396 | | | | | | |
| 3 | 40.296 | 606.3 | 0.7293 | | | | | | |
| 4 | 44.713 | 607.8 | 0.6895 | | | | | | |
| 5 | 46.631 | 610.2 | 0.6399 | | | | | | |
| 6 | 47.536 | 613.9 | 0.5893 | | | | | | |
| 7 | 48.167 | 619.0 | 0.5432 | | | | | | |
| 8 | 48.873 | 624.8 | 0.5034 | | | | | | |
| 9 | 50.489 | 632.1 | 0.4692 | | | | | | |
| 10 | 50.932 | 639.6 | 0.4401 | | | | | | |
| 11 | 51.100 | 647.9 | 0.4153 | | | | | | |
| 12 | 51.105 | 657.1 | 0.3940 | | | | | | |
| 13 | 51.024 | 667.1 | 0.3753 | | | | | | |
| 14 | 50.841 | 677.8 | 0.3588 | | | | | | |
| 15 | 50.505 | 689.2 | 0.3442 | | | | | | |
| 16 | 49.938 | 701.1 | 0.3312 | | | | | | |
| 17 | 49.056 | 713.0 | 0.3197 | | | | | | |
| 18 | 47.637 | 724.4 | 0.3099 | | | | | | |
| 19 | 46.088 | 733.1 | 0.3005 | | | | | | |
| 20 | 44.031 | 737.6 | 0.2917 | | | | | | |
| 21 | 40.524 | 732.4 | 0.2836 | | | | | | |
| 22 | 35.870 | 721.6 | 0.2773 | | | | | | |
| 23 | 29.630 | 693.2 | 0.2697 | | | | | | |
| 24 | 13.663 | 618.4 | 0.2623 | | | | | | |
| 25 | 7.863 | 590.3 | 0.2526 | | | | | | |

Table 4-11. LS1 Burnup and TH Feedback Parameters Assembly A10

| Node No. | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|-------------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.254 | 632.7 | 0.7396 | 2.414 | 644.7 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.281 | 838.8 | 0.7396 | 8.303 | 898.0 | 0.7396 |
| 3 | 0.000 | | 0.7305 | 5.984 | 913.2 | 0.7353 | 11.824 | 1016.3 | 0.7305 |
| 4 | 0.000 | Data | 0.6668 | 7.190 | 1006.9 | 0.6993 | 14.132 | 1137.4 | 0.6876 |
| 5 | 0.000 | Not | 0.5970 | 7.920 | 1068.6 | 0.6477 | 15.252 | 1183.7 | 0.6292 |
| 6 | 0.000 | Required | 0.5330 | 8.327 | 1104.8 | 0.5884 | 15.708 | 1189.7 | 0.5666 |
| 7 | 0.000 | | 0.4800 | 8.550 | 1125.1 | 0.5303 | 15.885 | 1184.1 | 0.5087 |
| 8 | 0.000 | | 0.4368 | 8.699 | 1138.9 | 0.4791 | 15.989 | 1178.7 | 0.4595 |
| 9 | 0.000 | | 0.4010 | 9.043 | 1171.5 | 0.4354 | 16.455 | 1193.5 | 0.4180 |
| 10 | 0.000 | | 0.3710 | 8.981 | 1165.6 | 0.3983 | 16.343 | 1187.4 | 0.3828 |
| 11 | 0.000 | | 0.3462 | 8.801 | 1148.5 | 0.3672 | 16.101 | 1179.9 | 0.3531 |
| 12 | 0.000 | | 0.3255 | 8.545 | 1124.7 | 0.3412 | 15.770 | 1170.8 | 0.3280 |
| 13 | 0.000 | | 0.3081 | 8.241 | 1097.0 | 0.3193 | 15.376 | 1160.1 | 0.3066 |
| 14 | 0.000 | | 0.2933 | 7.907 | 1067.5 | 0.3007 | 14.933 | 1147.2 | 0.2882 |
| 15 | 0.000 | | 0.2807 | 7.553 | 1037.1 | 0.2848 | 14.446 | 1131.7 | 0.2723 |
| 16 | 0.000 | | 0.2699 | 7.178 | 1005.9 | 0.2711 | 13.904 | 1112.5 | 0.2584 |
| 17 | 0.000 | | 0.2607 | 6.763 | 972.6 | 0.2593 | 13.262 | 1086.9 | 0.2462 |
| 18 | 0.000 | | 0.2531 | 6.171 | 927.1 | 0.2491 | 12.285 | 1045.0 | 0.2356 |
| 19 | 0.000 | | 0.2466 | 5.816 | 900.9 | 0.2403 | 11.630 | 1013.6 | 0.2265 |
| 20 | 0.000 | | 0.2410 | 5.512 | 879.1 | 0.2325 | 11.006 | 981.2 | 0.2184 |
| 21 | 0.000 | | 0.2359 | 5.154 | 854.2 | 0.2254 | 10.234 | 940.9 | 0.2114 |
| 22 | 0.000 | | 0.2316 | 4.580 | 815.7 | 0.2192 | 9.026 | 882.6 | 0.2054 |
| 23 | 0.000 | | 0.2281 | 3.932 | 774.5 | 0.2142 | 7.653 | 820.6 | 0.2005 |
| 24 | 0.000 | | 0.2259 | 1.819 | 653.8 | 0.2105 | 3.590 | 675.0 | 0.1969 |
| 25 | 0.000 | | 0.2247 | 1.138 | 618.8 | 0.2089 | 2.218 | 629.6 | 0.1955 |
| Node No. | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.152 | 648.5 | 0.7396 | 5.547 | 634.1 | 0.7396 | 7.287 | 669.6 | 0.7396 |
| 2 | 14.598 | 935.6 | 0.7396 | 19.421 | 849.4 | 0.7396 | 24.892 | 964.5 | 0.7396 |
| 3 | 20.205 | 1015.9 | 0.7282 | 26.266 | 882.0 | 0.7300 | 32.785 | 986.2 | 0.7293 |
| 4 | 23.338 | 1077.1 | 0.6838 | 29.943 | 918.2 | 0.6886 | 36.751 | 1011.1 | 0.6881 |
| 5 | 24.657 | 1092.5 | 0.6255 | 31.526 | 936.3 | 0.6341 | 38.371 | 1014.3 | 0.6345 |
| 6 | 25.100 | 1091.5 | 0.5641 | 32.141 | 948.3 | 0.5764 | 38.954 | 1011.5 | 0.5779 |
| 7 | 25.235 | 1088.2 | 0.5079 | 32.426 | 958.9 | 0.5229 | 39.208 | 1008.8 | 0.5252 |
| 8 | 25.342 | 1088.5 | 0.4601 | 32.695 | 970.5 | 0.4767 | 39.482 | 1009.3 | 0.4795 |
| 9 | 25.990 | 1102.7 | 0.4198 | 33.620 | 990.7 | 0.4370 | 40.531 | 1020.1 | 0.4402 |
| 10 | 25.866 | 1101.7 | 0.3854 | 33.641 | 1001.4 | 0.4029 | 40.539 | 1019.0 | 0.4064 |
| 11 | 25.555 | 1096.3 | 0.3562 | 33.462 | 1011.3 | 0.3738 | 40.302 | 1013.9 | 0.3774 |
| 12 | 25.115 | 1087.9 | 0.3314 | 33.146 | 1020.7 | 0.3488 | 39.900 | 1006.4 | 0.3525 |
| 13 | 24.584 | 1077.3 | 0.3102 | 32.736 | 1029.9 | 0.3271 | 39.387 | 997.5 | 0.3309 |
| 14 | 23.979 | 1065.0 | 0.2918 | 32.245 | 1038.7 | 0.3083 | 38.782 | 987.7 | 0.3120 |
| 15 | 23.303 | 1050.8 | 0.2758 | 31.670 | 1046.6 | 0.2917 | 38.080 | 976.9 | 0.2955 |
| 16 | 22.535 | 1034.0 | 0.2619 | 30.981 | 1052.8 | 0.2771 | 37.251 | 965.2 | 0.2808 |
| 17 | 21.610 | 1013.5 | 0.2496 | 30.096 | 1056.0 | 0.2641 | 36.208 | 952.1 | 0.2678 |
| 18 | 20.263 | 987.3 | 0.2388 | 28.738 | 1055.1 | 0.2528 | 34.690 | 939.1 | 0.2564 |
| 19 | 19.119 | 953.8 | 0.2294 | 27.417 | 1041.2 | 0.2425 | 33.195 | 925.2 | 0.2462 |
| 20 | 17.881 | 913.5 | 0.2212 | 25.808 | 1012.8 | 0.2334 | 31.376 | 908.7 | 0.2370 |
| 21 | 16.281 | 861.9 | 0.2140 | 23.468 | 958.6 | 0.2252 | 28.613 | 876.3 | 0.2288 |
| 22 | 14.115 | 806.1 | 0.2080 | 20.425 | 898.4 | 0.2185 | 25.002 | 834.8 | 0.2221 |
| 23 | 11.683 | 748.7 | 0.2031 | 16.844 | 825.5 | 0.2129 | 20.584 | 777.3 | 0.2164 |
| 24 | 5.409 | 641.6 | 0.1997 | 7.721 | 669.8 | 0.2089 | 9.425 | 653.5 | 0.2124 |
| 25 | 3.272 | 607.8 | 0.1982 | 4.592 | 622.4 | 0.2068 | 5.550 | 612.8 | 0.2102 |

Table 4-11. LS1 Burnup and TH Feedback Parameters Assembly A10 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 8.366 | 671.2 | 0.7396 | 8.914 | 593.6 | 0.7396 | 9.136 | 583.1 | 0.7396 |
| 2 | 28.077 | 940.4 | 0.7396 | 29.639 | 659.2 | 0.7396 | 30.256 | 625.4 | 0.7396 |
| 3 | 36.507 | 950.0 | 0.7292 | 38.328 | 661.6 | 0.7305 | 39.037 | 627.1 | 0.7310 |
| 4 | 40.611 | 968.7 | 0.6884 | 42.581 | 670.2 | 0.6915 | 43.341 | 631.9 | 0.6926 |
| 5 | 42.261 | 972.8 | 0.6357 | 44.403 | 680.3 | 0.6414 | 45.220 | 637.3 | 0.6434 |
| 6 | 42.849 | 973.5 | 0.5799 | 45.196 | 692.5 | 0.5888 | 46.089 | 644.5 | 0.5920 |
| 7 | 43.108 | 974.2 | 0.5278 | 45.683 | 706.3 | 0.5401 | 46.659 | 652.5 | 0.5446 |
| 8 | 43.397 | 976.2 | 0.4825 | 46.209 | 720.9 | 0.4979 | 47.270 | 660.7 | 0.5036 |
| 9 | 44.517 | 986.0 | 0.4433 | 47.597 | 737.8 | 0.4612 | 48.756 | 670.3 | 0.4681 |
| 10 | 44.540 | 988.1 | 0.4095 | 47.831 | 751.3 | 0.4296 | 49.072 | 678.5 | 0.4376 |
| 11 | 44.309 | 989.0 | 0.3806 | 47.775 | 762.8 | 0.4022 | 49.094 | 686.3 | 0.4113 |
| 12 | 43.910 | 989.4 | 0.3556 | 47.511 | 771.7 | 0.3781 | 48.907 | 694.2 | 0.3882 |
| 13 | 43.397 | 989.4 | 0.3340 | 47.091 | 777.9 | 0.3569 | 48.564 | 702.1 | 0.3677 |
| 14 | 42.790 | 989.1 | 0.3151 | 46.536 | 781.4 | 0.3379 | 48.085 | 710.0 | 0.3495 |
| 15 | 42.083 | 988.4 | 0.2984 | 45.846 | 782.6 | 0.3209 | 47.467 | 717.5 | 0.3331 |
| 16 | 41.246 | 987.3 | 0.2837 | 44.995 | 781.6 | 0.3057 | 46.683 | 724.6 | 0.3184 |
| 17 | 40.190 | 985.5 | 0.2706 | 43.896 | 778.7 | 0.2920 | 45.643 | 730.9 | 0.3052 |
| 18 | 38.646 | 981.9 | 0.2591 | 42.286 | 774.3 | 0.2802 | 44.091 | 737.2 | 0.2938 |
| 19 | 37.076 | 971.6 | 0.2487 | 40.597 | 766.4 | 0.2692 | 42.435 | 740.8 | 0.2831 |
| 20 | 35.113 | 952.0 | 0.2394 | 38.461 | 755.0 | 0.2593 | 40.300 | 740.9 | 0.2734 |
| 21 | 32.056 | 913.5 | 0.2311 | 35.103 | 735.7 | 0.2504 | 36.865 | 732.5 | 0.2646 |
| 22 | 28.061 | 865.7 | 0.2242 | 30.741 | 712.7 | 0.2432 | 32.370 | 718.4 | 0.2576 |
| 23 | 23.088 | 801.2 | 0.2185 | 25.223 | 679.9 | 0.2365 | 26.562 | 688.4 | 0.2505 |
| 24 | 10.592 | 665.0 | 0.2145 | 11.518 | 611.9 | 0.2314 | 12.102 | 615.5 | 0.2446 |
| 25 | 6.209 | 619.2 | 0.2122 | 6.682 | 587.8 | 0.2271 | 6.974 | 589.0 | 0.2386 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.452 | 579.8 | 0.7396 | | | | | | |
| 2 | 31.103 | 613.8 | 0.7396 | | | | | | |
| 3 | 39.982 | 614.2 | 0.7316 | | | | | | |
| 4 | 44.322 | 616.2 | 0.6941 | | | | | | |
| 5 | 46.249 | 618.8 | 0.6459 | | | | | | |
| 6 | 47.194 | 623.1 | 0.5958 | | | | | | |
| 7 | 47.864 | 628.7 | 0.5498 | | | | | | |
| 8 | 48.590 | 635.2 | 0.5104 | | | | | | |
| 9 | 50.217 | 643.3 | 0.4764 | | | | | | |
| 10 | 50.669 | 651.1 | 0.4475 | | | | | | |
| 11 | 50.840 | 659.8 | 0.4229 | | | | | | |
| 12 | 50.815 | 669.4 | 0.4016 | | | | | | |
| 13 | 50.647 | 679.9 | 0.3831 | | | | | | |
| 14 | 50.353 | 691.1 | 0.3667 | | | | | | |
| 15 | 49.928 | 703.1 | 0.3521 | | | | | | |
| 16 | 49.338 | 715.3 | 0.3391 | | | | | | |
| 17 | 48.489 | 727.5 | 0.3273 | | | | | | |
| 18 | 47.119 | 739.3 | 0.3174 | | | | | | |
| 19 | 45.595 | 748.0 | 0.3076 | | | | | | |
| 20 | 43.521 | 752.0 | 0.2986 | | | | | | |
| 21 | 39.988 | 745.5 | 0.2900 | | | | | | |
| 22 | 35.302 | 733.0 | 0.2834 | | | | | | |
| 23 | 29.011 | 702.3 | 0.2758 | | | | | | |
| 24 | 13.188 | 622.0 | 0.2690 | | | | | | |
| 25 | 7.521 | 592.4 | 0.2601 | | | | | | |

Table 4-12. LS1 Burnup and TH Feedback Parameters Assembly A11

| Node No. | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|-------------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.378 | 640.2 | 0.7396 | 2.637 | 652.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.677 | 869.6 | 0.7396 | 9.069 | 936.5 | 0.7396 |
| 3 | 0.000 | | 0.7319 | 6.536 | 954.9 | 0.7306 | 12.909 | 1073.0 | 0.7253 |
| 4 | 0.000 | Data | 0.6694 | 7.836 | 1061.3 | 0.6877 | 15.295 | 1199.3 | 0.6752 |
| 5 | 0.000 | Not | 0.6002 | 8.577 | 1127.6 | 0.6283 | 16.343 | 1237.6 | 0.6096 |
| 6 | 0.000 | Required | 0.5359 | 8.951 | 1162.7 | 0.5639 | 16.704 | 1236.0 | 0.5430 |
| 7 | 0.000 | | 0.4824 | 9.136 | 1180.5 | 0.5043 | 16.813 | 1226.4 | 0.4847 |
| 8 | 0.000 | | 0.4389 | 9.253 | 1191.8 | 0.4539 | 16.867 | 1218.5 | 0.4365 |
| 9 | 0.000 | | 0.4027 | 9.586 | 1224.8 | 0.4115 | 17.308 | 1232.0 | 0.3964 |
| 10 | 0.000 | | 0.3725 | 9.501 | 1216.3 | 0.3758 | 17.168 | 1225.1 | 0.3625 |
| 11 | 0.000 | | 0.3474 | 9.294 | 1195.9 | 0.3460 | 16.898 | 1217.2 | 0.3341 |
| 12 | 0.000 | | 0.3266 | 9.010 | 1168.3 | 0.3212 | 16.539 | 1207.9 | 0.3102 |
| 13 | 0.000 | | 0.3090 | 8.678 | 1137.0 | 0.3002 | 16.113 | 1196.3 | 0.2898 |
| 14 | 0.000 | | 0.2942 | 8.313 | 1103.5 | 0.2826 | 15.627 | 1181.6 | 0.2723 |
| 15 | 0.000 | | 0.2815 | 7.921 | 1068.7 | 0.2675 | 15.077 | 1162.6 | 0.2571 |
| 16 | 0.000 | | 0.2707 | 7.501 | 1032.7 | 0.2545 | 14.448 | 1137.9 | 0.2439 |
| 17 | 0.000 | | 0.2614 | 7.028 | 993.7 | 0.2434 | 13.688 | 1105.0 | 0.2325 |
| 18 | 0.000 | | 0.2538 | 6.360 | 941.4 | 0.2338 | 12.565 | 1054.8 | 0.2226 |
| 19 | 0.000 | | 0.2473 | 5.925 | 908.9 | 0.2256 | 11.762 | 1016.0 | 0.2140 |
| 20 | 0.000 | | 0.2418 | 5.541 | 881.2 | 0.2184 | 11.007 | 978.4 | 0.2066 |
| 21 | 0.000 | | 0.2368 | 5.119 | 851.8 | 0.2121 | 10.141 | 935.4 | 0.2001 |
| 22 | 0.000 | | 0.2325 | 4.509 | 811.1 | 0.2065 | 8.887 | 876.5 | 0.1946 |
| 23 | 0.000 | | 0.2290 | 3.862 | 770.2 | 0.2020 | 7.527 | 816.0 | 0.1901 |
| 24 | 0.000 | | 0.2267 | 1.797 | 652.7 | 0.1986 | 3.549 | 673.7 | 0.1868 |
| 25 | 0.000 | | 0.2255 | 1.135 | 618.7 | 0.1972 | 2.211 | 629.3 | 0.1854 |
| Node No. | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.026 | 630.0 | 0.7396 | 4.959 | 608.9 | 0.7396 | 6.680 | 668.3 | 0.7396 |
| 2 | 14.101 | 846.6 | 0.7396 | 17.356 | 744.3 | 0.7396 | 22.915 | 972.6 | 0.7396 |
| 3 | 19.526 | 897.1 | 0.7292 | 23.606 | 762.5 | 0.7326 | 30.244 | 996.3 | 0.7302 |
| 4 | 22.575 | 939.9 | 0.6852 | 27.049 | 784.9 | 0.6935 | 33.947 | 1019.0 | 0.6902 |
| 5 | 23.879 | 957.0 | 0.6272 | 28.602 | 799.4 | 0.6419 | 35.496 | 1018.6 | 0.6385 |
| 6 | 24.354 | 964.7 | 0.5671 | 29.297 | 812.4 | 0.5880 | 36.138 | 1014.0 | 0.5851 |
| 7 | 24.528 | 969.1 | 0.5126 | 29.694 | 825.8 | 0.5387 | 36.535 | 1014.0 | 0.5366 |
| 8 | 24.642 | 973.2 | 0.4660 | 30.036 | 839.7 | 0.4957 | 36.868 | 1013.2 | 0.4941 |
| 9 | 25.274 | 986.5 | 0.4261 | 30.986 | 859.6 | 0.4578 | 37.908 | 1021.1 | 0.4565 |
| 10 | 25.164 | 988.6 | 0.3921 | 31.085 | 872.9 | 0.4250 | 37.996 | 1020.1 | 0.4241 |
| 11 | 24.884 | 987.9 | 0.3632 | 30.989 | 884.9 | 0.3967 | 37.838 | 1014.7 | 0.3959 |
| 12 | 24.484 | 985.0 | 0.3387 | 30.756 | 895.8 | 0.3722 | 37.516 | 1006.9 | 0.3713 |
| 13 | 23.990 | 980.3 | 0.3176 | 30.420 | 906.4 | 0.3509 | 37.073 | 997.6 | 0.3500 |
| 14 | 23.411 | 973.9 | 0.2993 | 29.986 | 916.1 | 0.3322 | 36.520 | 987.4 | 0.3313 |
| 15 | 22.737 | 965.4 | 0.2834 | 29.444 | 925.1 | 0.3158 | 35.845 | 976.2 | 0.3149 |
| 16 | 21.947 | 954.5 | 0.2696 | 28.762 | 932.5 | 0.3014 | 35.016 | 963.9 | 0.3005 |
| 17 | 20.975 | 940.3 | 0.2575 | 27.864 | 937.7 | 0.2887 | 33.989 | 953.2 | 0.2879 |
| 18 | 19.564 | 921.5 | 0.2473 | 26.487 | 940.0 | 0.2782 | 32.645 | 955.9 | 0.2778 |
| 19 | 18.365 | 896.2 | 0.2380 | 25.196 | 933.6 | 0.2680 | 31.199 | 943.3 | 0.2676 |
| 20 | 17.104 | 864.9 | 0.2295 | 23.697 | 917.3 | 0.2586 | 29.447 | 923.0 | 0.2581 |
| 21 | 15.546 | 824.1 | 0.2218 | 21.598 | 881.4 | 0.2496 | 26.868 | 885.7 | 0.2491 |
| 22 | 13.464 | 777.8 | 0.2153 | 18.852 | 839.4 | 0.2425 | 23.520 | 841.3 | 0.2417 |
| 23 | 11.163 | 728.5 | 0.2097 | 15.600 | 782.8 | 0.2358 | 19.408 | 781.8 | 0.2352 |
| 24 | 5.176 | 633.0 | 0.2056 | 7.130 | 652.3 | 0.2303 | 8.833 | 653.4 | 0.2300 |
| 25 | 3.135 | 602.2 | 0.2030 | 4.218 | 611.5 | 0.2261 | 5.178 | 613.0 | 0.2262 |

Table 4-12. LS1 Burnup and TH Feedback Parameters Assembly A11 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 7.495 | 642.6 | 0.7396 | 8.115 | 598.1 | 0.7396 | 8.319 | 581.2 | 0.7396 |
| 2 | 25.404 | 842.4 | 0.7396 | 27.239 | 677.8 | 0.7396 | 27.828 | 622.3 | 0.7396 |
| 3 | 33.194 | 852.6 | 0.7308 | 35.362 | 681.8 | 0.7318 | 36.050 | 625.2 | 0.7323 |
| 4 | 37.040 | 869.8 | 0.6919 | 39.383 | 692.2 | 0.6942 | 40.128 | 630.5 | 0.6953 |
| 5 | 38.652 | 877.5 | 0.6417 | 41.166 | 702.5 | 0.6456 | 41.979 | 636.9 | 0.6476 |
| 6 | 39.344 | 883.7 | 0.5896 | 42.041 | 713.7 | 0.5950 | 42.937 | 644.8 | 0.5980 |
| 7 | 39.780 | 888.5 | 0.5419 | 42.645 | 724.2 | 0.5484 | 43.632 | 653.5 | 0.5524 |
| 8 | 40.156 | 893.9 | 0.4998 | 43.168 | 733.4 | 0.5067 | 44.249 | 662.7 | 0.5117 |
| 9 | 41.275 | 903.8 | 0.4625 | 44.446 | 743.6 | 0.4694 | 45.640 | 673.8 | 0.4750 |
| 10 | 41.387 | 906.9 | 0.4300 | 44.643 | 749.1 | 0.4367 | 45.938 | 683.9 | 0.4428 |
| 11 | 41.248 | 909.3 | 0.4017 | 44.561 | 752.8 | 0.4080 | 45.966 | 695.1 | 0.4145 |
| 12 | 40.940 | 911.1 | 0.3770 | 44.285 | 754.8 | 0.3831 | 45.811 | 707.6 | 0.3897 |
| 13 | 40.509 | 912.6 | 0.3555 | 43.860 | 755.2 | 0.3612 | 45.508 | 720.4 | 0.3680 |
| 14 | 39.964 | 913.6 | 0.3367 | 43.299 | 754.2 | 0.3420 | 45.048 | 731.2 | 0.3488 |
| 15 | 39.295 | 914.4 | 0.3201 | 42.589 | 751.5 | 0.3251 | 44.406 | 738.5 | 0.3315 |
| 16 | 38.488 | 917.2 | 0.3056 | 41.711 | 746.9 | 0.3102 | 43.564 | 742.4 | 0.3163 |
| 17 | 37.609 | 936.5 | 0.2934 | 40.726 | 740.1 | 0.2975 | 42.582 | 742.7 | 0.3032 |
| 18 | 36.711 | 997.3 | 0.2841 | 39.671 | 730.2 | 0.2877 | 41.491 | 738.8 | 0.2929 |
| 19 | 35.314 | 1004.2 | 0.2736 | 38.121 | 720.6 | 0.2770 | 39.900 | 734.4 | 0.2819 |
| 20 | 33.427 | 985.2 | 0.2635 | 36.056 | 709.6 | 0.2668 | 37.768 | 727.2 | 0.2713 |
| 21 | 30.553 | 945.1 | 0.2541 | 32.911 | 693.1 | 0.2573 | 34.487 | 712.8 | 0.2616 |
| 22 | 26.814 | 894.6 | 0.2465 | 28.872 | 675.4 | 0.2496 | 30.280 | 695.4 | 0.2538 |
| 23 | 22.106 | 823.1 | 0.2396 | 23.761 | 652.1 | 0.2427 | 24.911 | 669.4 | 0.2466 |
| 24 | 10.063 | 670.9 | 0.2342 | 10.790 | 601.2 | 0.2373 | 11.300 | 608.7 | 0.2411 |
| 25 | 5.866 | 621.8 | 0.2304 | 6.258 | 583.5 | 0.2333 | 6.529 | 587.1 | 0.2368 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 8.614 | 578.5 | 0.7396 | | | | | | |
| 2 | 28.650 | 612.1 | 0.7396 | | | | | | |
| 3 | 36.979 | 613.3 | 0.7329 | | | | | | |
| 4 | 41.103 | 615.8 | 0.6967 | | | | | | |
| 5 | 43.014 | 619.2 | 0.6501 | | | | | | |
| 6 | 44.058 | 624.0 | 0.6019 | | | | | | |
| 7 | 44.859 | 629.9 | 0.5576 | | | | | | |
| 8 | 45.601 | 637.0 | 0.5181 | | | | | | |
| 9 | 47.147 | 645.9 | 0.4827 | | | | | | |
| 10 | 47.586 | 654.1 | 0.4515 | | | | | | |
| 11 | 47.757 | 662.5 | 0.4242 | | | | | | |
| 12 | 47.744 | 670.9 | 0.4002 | | | | | | |
| 13 | 47.586 | 679.6 | 0.3789 | | | | | | |
| 14 | 47.276 | 688.7 | 0.3600 | | | | | | |
| 15 | 46.790 | 698.3 | 0.3431 | | | | | | |
| 16 | 46.104 | 708.0 | 0.3281 | | | | | | |
| 17 | 45.261 | 716.8 | 0.3150 | | | | | | |
| 18 | 44.266 | 722.9 | 0.3044 | | | | | | |
| 19 | 42.751 | 727.8 | 0.2932 | | | | | | |
| 20 | 40.640 | 729.1 | 0.2825 | | | | | | |
| 21 | 37.239 | 721.4 | 0.2726 | | | | | | |
| 22 | 32.830 | 708.6 | 0.2645 | | | | | | |
| 23 | 27.050 | 683.3 | 0.2570 | | | | | | |
| 24 | 12.263 | 615.2 | 0.2512 | | | | | | |
| 25 | 7.041 | 590.5 | 0.2461 | | | | | | |

Table 4-13. LS1 Burnup and TH Feedback Parameters Assembly A12

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.126 | 625.0 | 0.7396 | 2.435 | 656.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.821 | 804.2 | 0.7396 | 8.308 | 946.6 | 0.7396 |
| 3 | 0.000 | | 0.7352 | 5.343 | 867.3 | 0.7388 | 11.807 | 1083.1 | 0.7274 |
| 4 | 0.000 | Data | 0.6777 | 6.489 | 951.2 | 0.7078 | 14.116 | 1220.1 | 0.6812 |
| 5 | 0.000 | Not | 0.6121 | 7.274 | 1013.8 | 0.6619 | 15.251 | 1264.6 | 0.6215 |
| 6 | 0.000 | Required | 0.5496 | 7.809 | 1059.0 | 0.6071 | 15.764 | 1261.8 | 0.5601 |
| 7 | 0.000 | | 0.4962 | 8.176 | 1091.2 | 0.5509 | 16.018 | 1247.3 | 0.5045 |
| 8 | 0.000 | | 0.4520 | 8.452 | 1116.1 | 0.4989 | 16.194 | 1234.6 | 0.4565 |
| 9 | 0.000 | | 0.4148 | 8.902 | 1158.0 | 0.4532 | 16.731 | 1245.6 | 0.4155 |
| 10 | 0.000 | | 0.3834 | 8.934 | 1161.1 | 0.4138 | 16.678 | 1234.8 | 0.3800 |
| 11 | 0.000 | | 0.3573 | 8.831 | 1151.3 | 0.3807 | 16.488 | 1223.9 | 0.3501 |
| 12 | 0.000 | | 0.3355 | 8.644 | 1133.8 | 0.3530 | 16.207 | 1212.1 | 0.3247 |
| 13 | 0.000 | | 0.3170 | 8.406 | 1111.9 | 0.3295 | 15.860 | 1198.7 | 0.3031 |
| 14 | 0.000 | | 0.3015 | 8.138 | 1087.8 | 0.3095 | 15.452 | 1181.6 | 0.2844 |
| 15 | 0.000 | | 0.2882 | 7.851 | 1062.6 | 0.2924 | 14.983 | 1159.7 | 0.2684 |
| 16 | 0.000 | | 0.2769 | 7.547 | 1036.6 | 0.2776 | 14.441 | 1131.8 | 0.2545 |
| 17 | 0.000 | | 0.2673 | 7.196 | 1007.4 | 0.2647 | 13.772 | 1095.5 | 0.2424 |
| 18 | 0.000 | | 0.2594 | 6.633 | 962.4 | 0.2536 | 12.735 | 1043.8 | 0.2318 |
| 19 | 0.000 | | 0.2527 | 6.293 | 936.3 | 0.2440 | 12.018 | 1004.5 | 0.2229 |
| 20 | 0.000 | | 0.2470 | 5.982 | 913.1 | 0.2353 | 11.345 | 968.2 | 0.2150 |
| 21 | 0.000 | | 0.2420 | 5.604 | 885.7 | 0.2277 | 10.551 | 928.3 | 0.2080 |
| 22 | 0.000 | | 0.2375 | 4.989 | 842.9 | 0.2210 | 9.334 | 873.6 | 0.2020 |
| 23 | 0.000 | | 0.2337 | 4.306 | 798.0 | 0.2155 | 7.970 | 815.9 | 0.1972 |
| 24 | 0.000 | | 0.2313 | 2.023 | 664.7 | 0.2113 | 3.787 | 674.5 | 0.1934 |
| 25 | 0.000 | | 0.2300 | 1.273 | 625.6 | 0.2096 | 2.364 | 630.3 | 0.1919 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.258 | 653.1 | 0.7396 | 5.555 | 628.7 | 0.7396 | 7.255 | 666.9 | 0.7396 |
| 2 | 14.884 | 956.5 | 0.7396 | 19.316 | 822.0 | 0.7396 | 24.721 | 958.4 | 0.7396 |
| 3 | 20.463 | 1035.9 | 0.7250 | 25.955 | 845.8 | 0.7281 | 32.489 | 987.4 | 0.7278 |
| 4 | 23.498 | 1090.7 | 0.6774 | 29.448 | 874.8 | 0.6848 | 36.332 | 1017.8 | 0.6850 |
| 5 | 24.724 | 1097.8 | 0.6175 | 30.934 | 891.7 | 0.6299 | 37.853 | 1020.8 | 0.6312 |
| 6 | 25.144 | 1090.6 | 0.5570 | 31.562 | 905.6 | 0.5739 | 38.399 | 1013.6 | 0.5759 |
| 7 | 25.307 | 1083.5 | 0.5028 | 31.923 | 918.9 | 0.5228 | 38.666 | 1005.4 | 0.5252 |
| 8 | 25.450 | 1081.0 | 0.4565 | 32.269 | 932.8 | 0.4782 | 38.964 | 1001.3 | 0.4810 |
| 9 | 26.139 | 1092.7 | 0.4169 | 33.269 | 954.6 | 0.4394 | 40.053 | 1009.0 | 0.4424 |
| 10 | 26.065 | 1091.1 | 0.3826 | 33.381 | 967.8 | 0.4055 | 40.129 | 1005.9 | 0.4089 |
| 11 | 25.813 | 1086.3 | 0.3536 | 33.295 | 979.8 | 0.3765 | 39.964 | 999.0 | 0.3800 |
| 12 | 25.438 | 1079.1 | 0.3286 | 33.074 | 991.1 | 0.3514 | 39.641 | 990.2 | 0.3552 |
| 13 | 24.971 | 1069.9 | 0.3075 | 32.755 | 1002.1 | 0.3297 | 39.208 | 980.5 | 0.3335 |
| 14 | 24.420 | 1059.1 | 0.2891 | 32.343 | 1012.5 | 0.3107 | 38.675 | 970.4 | 0.3146 |
| 15 | 23.779 | 1046.2 | 0.2731 | 31.830 | 1022.2 | 0.2941 | 38.030 | 959.4 | 0.2980 |
| 16 | 23.027 | 1030.7 | 0.2592 | 31.185 | 1030.4 | 0.2796 | 37.240 | 947.5 | 0.2834 |
| 17 | 22.097 | 1011.8 | 0.2470 | 30.324 | 1035.7 | 0.2666 | 36.207 | 933.6 | 0.2705 |
| 18 | 20.731 | 988.6 | 0.2365 | 28.976 | 1037.1 | 0.2555 | 34.688 | 920.0 | 0.2593 |
| 19 | 19.602 | 960.2 | 0.2278 | 27.700 | 1025.8 | 0.2456 | 33.240 | 906.5 | 0.2494 |
| 20 | 18.346 | 921.6 | 0.2196 | 26.117 | 1001.1 | 0.2365 | 31.471 | 892.1 | 0.2402 |
| 21 | 16.723 | 869.5 | 0.2124 | 23.807 | 951.3 | 0.2281 | 28.771 | 862.9 | 0.2319 |
| 22 | 14.539 | 812.7 | 0.2062 | 20.793 | 894.6 | 0.2211 | 25.217 | 824.0 | 0.2250 |
| 23 | 12.082 | 753.0 | 0.2012 | 17.208 | 823.4 | 0.2152 | 20.827 | 769.4 | 0.2190 |
| 24 | 5.623 | 642.3 | 0.1975 | 7.907 | 668.4 | 0.2108 | 9.565 | 650.9 | 0.2147 |
| 25 | 3.425 | 608.1 | 0.1958 | 4.718 | 621.2 | 0.2082 | 5.650 | 611.5 | 0.2120 |

Table 4-13. LS1 Burnup and TH Feedback Parameters Assembly A12 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 8.445 | 683.5 | 0.7396 | 9.084 | 599.3 | 0.7396 | 9.316 | 584.2 | 0.7396 |
| 2 | 28.280 | 997.3 | 0.7396 | 30.130 | 678.9 | 0.7396 | 30.785 | 629.6 | 0.7396 |
| 3 | 36.673 | 1014.0 | 0.7271 | 38.862 | 683.1 | 0.7282 | 39.626 | 632.3 | 0.7287 |
| 4 | 40.655 | 1034.2 | 0.6842 | 43.046 | 695.1 | 0.6868 | 43.884 | 639.3 | 0.6880 |
| 5 | 42.154 | 1031.0 | 0.6305 | 44.736 | 706.7 | 0.6348 | 45.656 | 647.1 | 0.6370 |
| 6 | 42.638 | 1021.9 | 0.5756 | 45.408 | 718.3 | 0.5815 | 46.425 | 656.4 | 0.5849 |
| 7 | 42.848 | 1013.7 | 0.5252 | 45.788 | 728.9 | 0.5323 | 46.909 | 666.6 | 0.5367 |
| 8 | 43.113 | 1009.0 | 0.4812 | 46.192 | 737.7 | 0.4888 | 47.415 | 676.7 | 0.4941 |
| 9 | 44.240 | 1014.5 | 0.4429 | 47.462 | 746.9 | 0.4506 | 48.796 | 687.9 | 0.4563 |
| 10 | 44.302 | 1012.4 | 0.4096 | 47.600 | 751.8 | 0.4171 | 49.024 | 697.0 | 0.4232 |
| 11 | 44.119 | 1009.9 | 0.3810 | 47.466 | 755.0 | 0.3882 | 48.974 | 705.7 | 0.3945 |
| 12 | 43.778 | 1007.3 | 0.3562 | 47.149 | 756.5 | 0.3631 | 48.741 | 714.5 | 0.3694 |
| 13 | 43.325 | 1004.5 | 0.3346 | 46.697 | 756.6 | 0.3412 | 48.368 | 722.8 | 0.3474 |
| 14 | 42.771 | 1001.5 | 0.3157 | 46.120 | 755.1 | 0.3220 | 47.860 | 730.2 | 0.3282 |
| 15 | 42.099 | 997.7 | 0.2991 | 45.403 | 752.2 | 0.3051 | 47.194 | 735.7 | 0.3111 |
| 16 | 41.267 | 991.8 | 0.2845 | 44.501 | 747.6 | 0.2901 | 46.322 | 738.9 | 0.2959 |
| 17 | 40.168 | 982.6 | 0.2715 | 43.307 | 741.5 | 0.2769 | 45.140 | 740.2 | 0.2824 |
| 18 | 38.560 | 970.3 | 0.2603 | 41.586 | 734.3 | 0.2654 | 43.416 | 739.9 | 0.2707 |
| 19 | 36.981 | 952.6 | 0.2503 | 39.856 | 724.8 | 0.2551 | 41.649 | 735.9 | 0.2602 |
| 20 | 35.044 | 930.3 | 0.2410 | 37.731 | 713.1 | 0.2457 | 39.456 | 728.6 | 0.2505 |
| 21 | 32.046 | 892.2 | 0.2327 | 34.449 | 695.8 | 0.2371 | 36.034 | 713.7 | 0.2417 |
| 22 | 28.112 | 846.1 | 0.2257 | 30.193 | 676.7 | 0.2300 | 31.604 | 695.7 | 0.2344 |
| 23 | 23.192 | 785.8 | 0.2198 | 24.847 | 652.1 | 0.2239 | 25.991 | 668.9 | 0.2281 |
| 24 | 10.673 | 659.6 | 0.2155 | 11.403 | 601.4 | 0.2195 | 11.912 | 608.7 | 0.2235 |
| 25 | 6.280 | 616.7 | 0.2129 | 6.671 | 583.4 | 0.2166 | 6.941 | 587.1 | 0.2202 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.603 | 578.0 | 0.7396 | | | | | | |
| 2 | 31.568 | 609.6 | 0.7396 | | | | | | |
| 3 | 40.511 | 610.9 | 0.7293 | | | | | | |
| 4 | 44.823 | 613.9 | 0.6894 | | | | | | |
| 5 | 46.662 | 617.6 | 0.6396 | | | | | | |
| 6 | 47.526 | 622.9 | 0.5886 | | | | | | |
| 7 | 48.127 | 629.4 | 0.5419 | | | | | | |
| 8 | 48.766 | 637.0 | 0.5007 | | | | | | |
| 9 | 50.306 | 646.1 | 0.4642 | | | | | | |
| 10 | 50.682 | 654.7 | 0.4323 | | | | | | |
| 11 | 50.781 | 663.4 | 0.4044 | | | | | | |
| 12 | 50.698 | 672.3 | 0.3802 | | | | | | |
| 13 | 50.477 | 681.5 | 0.3588 | | | | | | |
| 14 | 50.122 | 690.8 | 0.3399 | | | | | | |
| 15 | 49.610 | 700.3 | 0.3231 | | | | | | |
| 16 | 48.890 | 709.8 | 0.3081 | | | | | | |
| 17 | 47.850 | 718.8 | 0.2948 | | | | | | |
| 18 | 46.256 | 727.1 | 0.2833 | | | | | | |
| 19 | 44.568 | 732.2 | 0.2726 | | | | | | |
| 20 | 42.386 | 732.9 | 0.2628 | | | | | | |
| 21 | 38.831 | 724.3 | 0.2537 | | | | | | |
| 22 | 34.185 | 710.6 | 0.2462 | | | | | | |
| 23 | 28.137 | 683.7 | 0.2394 | | | | | | |
| 24 | 12.876 | 615.2 | 0.2342 | | | | | | |
| 25 | 7.449 | 590.3 | 0.2299 | | | | | | |

Table 4-14. LS1 Burnup and TH Feedback Parameters Assembly B1

| Node No. | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|-------------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.016 | 618.6 | 0.7396 | 2.254 | 650.9 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.534 | 783.9 | 0.7396 | 8.031 | 948.9 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 5.110 | 905.6 | 0.7396 | 11.704 | 1200.9 | 0.7263 |
| 4 | 0.000 | Data | 0.6947 | 6.395 | 945.3 | 0.7112 | 14.133 | 1236.5 | 0.6801 |
| 5 | 0.000 | Not | 0.6330 | 7.316 | 1018.8 | 0.6658 | 15.360 | 1276.0 | 0.6209 |
| 6 | 0.000 | Required | 0.5714 | 7.935 | 1071.7 | 0.6102 | 15.907 | 1266.6 | 0.5598 |
| 7 | 0.000 | | 0.5171 | 8.344 | 1108.2 | 0.5525 | 16.161 | 1246.6 | 0.5041 |
| 8 | 0.000 | | 0.4711 | 8.658 | 1137.1 | 0.4991 | 16.340 | 1229.4 | 0.4558 |
| 9 | 0.000 | | 0.4319 | 9.221 | 1191.0 | 0.4520 | 16.952 | 1235.6 | 0.4145 |
| 10 | 0.000 | | 0.3987 | 9.214 | 1190.3 | 0.4115 | 16.861 | 1225.0 | 0.3784 |
| 11 | 0.000 | | 0.3713 | 9.023 | 1171.8 | 0.3779 | 16.600 | 1216.2 | 0.3481 |
| 12 | 0.000 | | 0.3483 | 8.735 | 1144.4 | 0.3501 | 16.249 | 1208.4 | 0.3225 |
| 13 | 0.000 | | 0.3291 | 8.398 | 1113.1 | 0.3268 | 15.851 | 1200.8 | 0.3006 |
| 14 | 0.000 | | 0.3129 | 8.033 | 1080.3 | 0.3072 | 15.416 | 1192.2 | 0.2819 |
| 15 | 0.000 | | 0.2991 | 7.646 | 1046.6 | 0.2906 | 14.935 | 1180.8 | 0.2657 |
| 16 | 0.000 | | 0.2874 | 7.236 | 1012.2 | 0.2765 | 14.387 | 1164.1 | 0.2517 |
| 17 | 0.000 | | 0.2775 | 6.774 | 974.8 | 0.2645 | 13.719 | 1139.7 | 0.2394 |
| 18 | 0.000 | | 0.2693 | 6.134 | 925.5 | 0.2541 | 12.736 | 1100.3 | 0.2285 |
| 19 | 0.000 | | 0.2626 | 5.774 | 898.9 | 0.2453 | 12.053 | 1064.5 | 0.2194 |
| 20 | 0.000 | | 0.2567 | 5.505 | 879.6 | 0.2373 | 11.430 | 1026.7 | 0.2116 |
| 21 | 0.000 | | 0.2517 | 5.194 | 857.8 | 0.2300 | 10.641 | 977.9 | 0.2048 |
| 22 | 0.000 | | 0.2475 | 4.630 | 819.8 | 0.2236 | 9.373 | 910.5 | 0.1991 |
| 23 | 0.000 | | 0.2441 | 3.952 | 776.3 | 0.2183 | 7.859 | 836.9 | 0.1945 |
| 24 | 0.000 | | 0.2419 | 1.816 | 653.9 | 0.2145 | 3.603 | 676.4 | 0.1912 |
| 25 | 0.000 | | 0.2406 | 1.124 | 618.3 | 0.2129 | 2.203 | 629.7 | 0.1900 |
| Node No. | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.084 | 653.7 | 0.7396 | 5.717 | 647.7 | 0.7396 | 7.424 | 667.6 | 0.7396 |
| 2 | 14.510 | 950.4 | 0.7396 | 19.847 | 887.6 | 0.7396 | 24.938 | 931.0 | 0.7396 |
| 3 | 20.067 | 1016.1 | 0.7253 | 26.732 | 923.4 | 0.7266 | 32.756 | 946.2 | 0.7265 |
| 4 | 23.277 | 1074.2 | 0.6787 | 30.486 | 961.5 | 0.6823 | 36.776 | 968.2 | 0.6830 |
| 5 | 24.736 | 1092.1 | 0.6197 | 32.174 | 978.0 | 0.6259 | 38.546 | 975.1 | 0.6282 |
| 6 | 25.308 | 1094.0 | 0.5590 | 32.885 | 988.2 | 0.5678 | 39.295 | 978.3 | 0.5715 |
| 7 | 25.546 | 1092.8 | 0.5039 | 33.252 | 997.7 | 0.5145 | 39.688 | 980.5 | 0.5194 |
| 8 | 25.748 | 1094.6 | 0.4566 | 33.606 | 1009.1 | 0.4684 | 40.075 | 983.3 | 0.4742 |
| 9 | 26.531 | 1108.0 | 0.4163 | 34.636 | 1027.9 | 0.4287 | 41.209 | 992.2 | 0.4350 |
| 10 | 26.435 | 1107.6 | 0.3814 | 34.687 | 1039.3 | 0.3942 | 41.310 | 996.5 | 0.4012 |
| 11 | 26.106 | 1102.3 | 0.3518 | 34.498 | 1050.2 | 0.3648 | 41.124 | 996.7 | 0.3720 |
| 12 | 25.643 | 1093.5 | 0.3267 | 34.169 | 1060.8 | 0.3396 | 40.784 | 995.8 | 0.3470 |
| 13 | 25.100 | 1082.2 | 0.3052 | 33.753 | 1071.0 | 0.3179 | 40.402 | 998.7 | 0.3256 |
| 14 | 24.494 | 1069.1 | 0.2866 | 33.265 | 1080.5 | 0.2990 | 39.859 | 994.0 | 0.3065 |
| 15 | 23.816 | 1054.2 | 0.2705 | 32.695 | 1089.3 | 0.2824 | 39.174 | 984.1 | 0.2896 |
| 16 | 23.042 | 1037.4 | 0.2564 | 32.018 | 1097.3 | 0.2678 | 38.340 | 970.9 | 0.2747 |
| 17 | 22.110 | 1018.1 | 0.2441 | 31.157 | 1103.1 | 0.2548 | 37.284 | 954.6 | 0.2614 |
| 18 | 20.820 | 996.2 | 0.2333 | 29.887 | 1104.8 | 0.2432 | 35.808 | 937.8 | 0.2498 |
| 19 | 19.708 | 966.3 | 0.2240 | 28.612 | 1091.3 | 0.2330 | 34.292 | 918.6 | 0.2394 |
| 20 | 18.526 | 928.9 | 0.2158 | 27.044 | 1060.2 | 0.2240 | 32.449 | 897.1 | 0.2301 |
| 21 | 16.913 | 876.6 | 0.2088 | 24.647 | 999.8 | 0.2159 | 29.633 | 865.4 | 0.2223 |
| 22 | 14.769 | 824.4 | 0.2028 | 21.568 | 932.6 | 0.2093 | 26.113 | 833.3 | 0.2162 |
| 23 | 12.251 | 768.5 | 0.1982 | 17.858 | 853.9 | 0.2040 | 21.590 | 777.4 | 0.2108 |
| 24 | 5.586 | 649.2 | 0.1949 | 8.224 | 686.3 | 0.2005 | 9.986 | 657.0 | 0.2074 |
| 25 | 3.354 | 612.1 | 0.1934 | 4.885 | 632.4 | 0.1986 | 5.879 | 614.9 | 0.2052 |

Table 4-14. LS1 Burnup and TH Feedback Parameters Assembly B1 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 8.112 | 629.4 | 0.7396 | 8.463 | 581.5 | 0.7396 | 8.605 | 574.9 | 0.7396 |
| 2 | 26.882 | 772.9 | 0.7396 | 27.835 | 619.3 | 0.7396 | 28.214 | 599.8 | 0.7396 |
| 3 | 35.057 | 779.5 | 0.7278 | 36.161 | 621.7 | 0.7286 | 36.595 | 601.9 | 0.7290 |
| 4 | 39.227 | 795.9 | 0.6860 | 40.415 | 626.3 | 0.6879 | 40.877 | 604.5 | 0.6887 |
| 5 | 41.115 | 809.2 | 0.6331 | 42.402 | 631.7 | 0.6367 | 42.898 | 607.6 | 0.6380 |
| 6 | 41.978 | 822.2 | 0.5784 | 43.389 | 638.6 | 0.5839 | 43.930 | 611.7 | 0.5860 |
| 7 | 42.475 | 834.2 | 0.5279 | 44.031 | 646.8 | 0.5354 | 44.622 | 616.3 | 0.5382 |
| 8 | 42.951 | 844.7 | 0.4837 | 44.658 | 655.3 | 0.4928 | 45.304 | 621.4 | 0.4965 |
| 9 | 44.183 | 856.3 | 0.4450 | 46.056 | 664.9 | 0.4553 | 46.766 | 627.4 | 0.4598 |
| 10 | 44.336 | 862.6 | 0.4115 | 46.351 | 673.1 | 0.4227 | 47.117 | 632.6 | 0.4278 |
| 11 | 44.190 | 867.4 | 0.3824 | 46.329 | 680.4 | 0.3942 | 47.150 | 637.8 | 0.3999 |
| 12 | 43.878 | 870.9 | 0.3572 | 46.121 | 686.6 | 0.3694 | 46.997 | 643.1 | 0.3755 |
| 13 | 43.510 | 872.6 | 0.3356 | 45.832 | 691.3 | 0.3478 | 46.762 | 648.3 | 0.3542 |
| 14 | 42.978 | 873.9 | 0.3163 | 45.360 | 694.9 | 0.3284 | 46.345 | 653.6 | 0.3351 |
| 15 | 42.299 | 874.7 | 0.2993 | 44.722 | 697.4 | 0.3111 | 45.761 | 658.8 | 0.3181 |
| 16 | 41.460 | 874.0 | 0.2842 | 43.905 | 698.7 | 0.2957 | 44.996 | 663.9 | 0.3029 |
| 17 | 40.394 | 872.8 | 0.2709 | 42.842 | 698.9 | 0.2822 | 43.981 | 668.6 | 0.2895 |
| 18 | 38.948 | 876.5 | 0.2594 | 41.379 | 697.9 | 0.2704 | 42.562 | 673.0 | 0.2780 |
| 19 | 37.658 | 904.8 | 0.2498 | 40.025 | 694.0 | 0.2604 | 41.230 | 675.2 | 0.2680 |
| 20 | 36.032 | 932.8 | 0.2415 | 38.290 | 687.5 | 0.2516 | 39.496 | 675.3 | 0.2590 |
| 21 | 33.076 | 914.6 | 0.2335 | 35.155 | 676.9 | 0.2432 | 36.316 | 670.8 | 0.2506 |
| 22 | 29.357 | 889.4 | 0.2275 | 31.193 | 662.7 | 0.2368 | 32.267 | 662.2 | 0.2441 |
| 23 | 24.289 | 824.0 | 0.2215 | 25.765 | 642.3 | 0.2304 | 26.655 | 644.4 | 0.2375 |
| 24 | 11.283 | 677.5 | 0.2180 | 11.954 | 598.3 | 0.2265 | 12.360 | 599.4 | 0.2333 |
| 25 | 6.602 | 625.0 | 0.2152 | 6.946 | 581.0 | 0.2227 | 7.152 | 581.4 | 0.2287 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 8.797 | 572.1 | 0.7396 | | | | | | |
| 2 | 28.713 | 591.4 | 0.7396 | | | | | | |
| 3 | 37.150 | 592.9 | 0.7294 | | | | | | |
| 4 | 41.450 | 593.9 | 0.6896 | | | | | | |
| 5 | 43.499 | 595.4 | 0.6396 | | | | | | |
| 6 | 44.575 | 597.8 | 0.5884 | | | | | | |
| 7 | 45.326 | 601.0 | 0.5415 | | | | | | |
| 8 | 46.079 | 604.9 | 0.5008 | | | | | | |
| 9 | 47.628 | 609.7 | 0.4650 | | | | | | |
| 10 | 48.067 | 614.6 | 0.4341 | | | | | | |
| 11 | 48.197 | 620.0 | 0.4073 | | | | | | |
| 12 | 48.150 | 625.9 | 0.3841 | | | | | | |
| 13 | 48.028 | 632.3 | 0.3639 | | | | | | |
| 14 | 47.734 | 639.3 | 0.3458 | | | | | | |
| 15 | 47.278 | 646.7 | 0.3298 | | | | | | |
| 16 | 46.645 | 654.4 | 0.3154 | | | | | | |
| 17 | 45.763 | 662.2 | 0.3028 | | | | | | |
| 18 | 44.472 | 669.8 | 0.2919 | | | | | | |
| 19 | 43.230 | 675.2 | 0.2821 | | | | | | |
| 20 | 41.540 | 677.8 | 0.2732 | | | | | | |
| 21 | 38.323 | 675.6 | 0.2649 | | | | | | |
| 22 | 34.155 | 668.5 | 0.2584 | | | | | | |
| 23 | 28.244 | 650.9 | 0.2514 | | | | | | |
| 24 | 13.095 | 602.7 | 0.2468 | | | | | | |
| 25 | 7.525 | 583.0 | 0.2406 | | | | | | |

Table 4-15. LS1 Burnup and TH Feedback Parameters Assembly B2

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.363 | 639.5 | 0.7396 | 2.694 | 658.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.757 | 876.9 | 0.7396 | 9.563 | 982.6 | 0.7396 |
| 3 | 0.000 | | 0.7281 | 6.744 | 972.4 | 0.7285 | 13.406 | 1107.1 | 0.7215 |
| 4 | 0.000 | Data | 0.6616 | 8.116 | 1087.7 | 0.6822 | 15.602 | 1204.9 | 0.6680 |
| 5 | 0.000 | Not | 0.5896 | 8.878 | 1157.9 | 0.6190 | 16.557 | 1229.1 | 0.6003 |
| 6 | 0.000 | Required | 0.5244 | 9.252 | 1194.0 | 0.5522 | 16.907 | 1226.0 | 0.5331 |
| 7 | 0.000 | | 0.4710 | 9.436 | 1212.2 | 0.4920 | 17.029 | 1218.2 | 0.4752 |
| 8 | 0.000 | | 0.4279 | 9.560 | 1224.6 | 0.4416 | 17.103 | 1212.0 | 0.4276 |
| 9 | 0.000 | | 0.3923 | 9.987 | 1268.3 | 0.3994 | 17.628 | 1224.3 | 0.3879 |
| 10 | 0.000 | | 0.3625 | 9.894 | 1258.7 | 0.3637 | 17.505 | 1220.5 | 0.3542 |
| 11 | 0.000 | | 0.3380 | 9.666 | 1235.4 | 0.3343 | 17.250 | 1217.1 | 0.3261 |
| 12 | 0.000 | | 0.3177 | 9.354 | 1204.1 | 0.3097 | 16.903 | 1212.7 | 0.3025 |
| 13 | 0.000 | | 0.3006 | 8.991 | 1168.7 | 0.2892 | 16.489 | 1206.4 | 0.2824 |
| 14 | 0.000 | | 0.2861 | 8.596 | 1131.4 | 0.2719 | 16.023 | 1197.6 | 0.2651 |
| 15 | 0.000 | | 0.2738 | 8.179 | 1093.3 | 0.2572 | 15.504 | 1185.1 | 0.2502 |
| 16 | 0.000 | | 0.2633 | 7.742 | 1054.9 | 0.2446 | 14.922 | 1167.6 | 0.2372 |
| 17 | 0.000 | | 0.2544 | 7.262 | 1014.3 | 0.2338 | 14.239 | 1143.5 | 0.2258 |
| 18 | 0.000 | | 0.2469 | 6.598 | 961.0 | 0.2245 | 13.254 | 1106.4 | 0.2158 |
| 19 | 0.000 | | 0.2407 | 6.180 | 928.9 | 0.2166 | 12.516 | 1070.7 | 0.2072 |
| 20 | 0.000 | | 0.2349 | 5.821 | 902.4 | 0.2095 | 11.795 | 1031.8 | 0.1996 |
| 21 | 0.000 | | 0.2300 | 5.415 | 873.3 | 0.2031 | 10.903 | 981.9 | 0.1929 |
| 22 | 0.000 | | 0.2259 | 4.790 | 830.4 | 0.1976 | 9.593 | 916.0 | 0.1872 |
| 23 | 0.000 | | 0.2225 | 4.079 | 784.3 | 0.1930 | 8.066 | 843.6 | 0.1826 |
| 24 | 0.000 | | 0.2203 | 1.866 | 656.6 | 0.1896 | 3.710 | 680.3 | 0.1793 |
| 25 | 0.000 | | 0.2192 | 1.163 | 620.2 | 0.1884 | 2.276 | 631.9 | 0.1780 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 3.989 | 625.3 | 0.7396 | 4.840 | 604.6 | 0.7396 | 5.885 | 624.3 | 0.7396 |
| 2 | 14.164 | 818.8 | 0.7396 | 16.988 | 717.9 | 0.7396 | 20.387 | 789.8 | 0.7396 |
| 3 | 19.294 | 853.3 | 0.7273 | 22.792 | 731.2 | 0.7312 | 27.130 | 818.7 | 0.7327 |
| 4 | 22.068 | 888.6 | 0.6819 | 25.885 | 748.5 | 0.6912 | 30.820 | 861.6 | 0.6952 |
| 5 | 23.294 | 905.7 | 0.6237 | 27.328 | 760.5 | 0.6396 | 32.925 | 912.0 | 0.6469 |
| 6 | 23.805 | 916.1 | 0.5646 | 28.052 | 772.5 | 0.5670 | 34.260 | 961.3 | 0.5972 |
| 7 | 24.049 | 924.0 | 0.5117 | 28.521 | 785.4 | 0.5396 | 35.117 | 994.2 | 0.5505 |
| 8 | 24.227 | 930.8 | 0.4664 | 28.934 | 799.1 | 0.4984 | 35.622 | 1002.1 | 0.5083 |
| 9 | 24.951 | 943.9 | 0.4269 | 29.965 | 817.4 | 0.4616 | 36.794 | 1014.4 | 0.4703 |
| 10 | 24.890 | 948.1 | 0.3931 | 30.131 | 831.1 | 0.4298 | 37.258 | 1041.0 | 0.4381 |
| 11 | 24.658 | 949.6 | 0.3644 | 30.105 | 843.9 | 0.4022 | 37.234 | 1041.2 | 0.4093 |
| 12 | 24.302 | 949.0 | 0.3400 | 29.939 | 855.8 | 0.3783 | 36.950 | 1030.6 | 0.3841 |
| 13 | 23.852 | 946.6 | 0.3190 | 29.665 | 867.0 | 0.3573 | 36.573 | 1021.4 | 0.3622 |
| 14 | 23.319 | 942.1 | 0.3008 | 29.295 | 877.5 | 0.3389 | 36.042 | 1007.2 | 0.3429 |
| 15 | 22.704 | 935.8 | 0.2849 | 28.824 | 886.9 | 0.3227 | 35.378 | 990.5 | 0.3258 |
| 16 | 21.990 | 927.1 | 0.2710 | 28.231 | 894.8 | 0.3083 | 34.567 | 972.0 | 0.3109 |
| 17 | 21.129 | 915.5 | 0.2588 | 27.459 | 900.7 | 0.2955 | 33.543 | 951.1 | 0.2976 |
| 18 | 19.921 | 901.3 | 0.2484 | 26.299 | 903.9 | 0.2848 | 32.125 | 930.2 | 0.2865 |
| 19 | 18.859 | 881.0 | 0.2388 | 25.178 | 900.0 | 0.2744 | 30.733 | 908.7 | 0.2758 |
| 20 | 17.714 | 855.1 | 0.2299 | 23.845 | 887.6 | 0.2645 | 29.139 | 888.6 | 0.2661 |
| 21 | 16.182 | 817.6 | 0.2218 | 21.857 | 858.2 | 0.2552 | 26.678 | 853.3 | 0.2569 |
| 22 | 14.173 | 778.6 | 0.2152 | 19.280 | 823.0 | 0.2479 | 23.508 | 811.1 | 0.2494 |
| 23 | 11.787 | 733.3 | 0.2095 | 16.050 | 773.4 | 0.2411 | 19.467 | 756.8 | 0.2427 |
| 24 | 5.343 | 633.4 | 0.2052 | 7.274 | 651.4 | 0.2363 | 8.851 | 646.6 | 0.2381 |
| 25 | 3.183 | 601.6 | 0.2020 | 4.239 | 610.4 | 0.2312 | 5.124 | 609.1 | 0.2335 |

Table 4-15. LS1 Burnup and TH Feedback Parameters Assembly B2 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 6.971 | 672.3 | 0.7396 | 8.053 | 627.7 | 0.7396 | 8.780 | 637.8 | 0.7396 |
| 2 | 23.649 | 953.1 | 0.7396 | 26.766 | 771.7 | 0.7396 | 28.827 | 802.3 | 0.7396 |
| 3 | 31.020 | 974.1 | 0.7320 | 34.906 | 791.6 | 0.7336 | 37.500 | 828.7 | 0.7341 |
| 4 | 34.838 | 991.9 | 0.6944 | 39.213 | 825.9 | 0.6983 | 42.158 | 872.8 | 0.6997 |
| 5 | 36.870 | 981.7 | 0.6464 | 41.607 | 852.3 | 0.6531 | 44.782 | 903.1 | 0.6554 |
| 6 | 38.106 | 968.1 | 0.5970 | 43.142 | 874.8 | 0.6059 | 46.450 | 921.1 | 0.6088 |
| 7 | 38.884 | 957.3 | 0.5506 | 44.193 | 895.8 | 0.5611 | 47.596 | 934.3 | 0.5642 |
| 8 | 39.352 | 952.4 | 0.5086 | 44.943 | 918.1 | 0.5197 | 48.447 | 948.4 | 0.5228 |
| 9 | 40.539 | 954.4 | 0.4709 | 46.425 | 942.1 | 0.4819 | 50.053 | 966.1 | 0.4848 |
| 10 | 40.961 | 948.7 | 0.4388 | 46.950 | 950.7 | 0.4490 | 50.639 | 974.9 | 0.4516 |
| 11 | 40.925 | 947.1 | 0.4101 | 46.947 | 953.4 | 0.4196 | 50.691 | 983.0 | 0.4219 |
| 12 | 40.640 | 947.0 | 0.3850 | 46.630 | 950.7 | 0.3938 | 50.418 | 989.5 | 0.3958 |
| 13 | 40.261 | 946.7 | 0.3632 | 46.162 | 943.4 | 0.3712 | 49.967 | 992.0 | 0.3730 |
| 14 | 39.732 | 947.0 | 0.3440 | 45.516 | 933.8 | 0.3513 | 49.308 | 990.1 | 0.3528 |
| 15 | 39.066 | 946.7 | 0.3269 | 44.698 | 921.4 | 0.3337 | 48.431 | 981.4 | 0.3350 |
| 16 | 38.245 | 945.4 | 0.3118 | 43.663 | 904.4 | 0.3181 | 47.287 | 965.5 | 0.3192 |
| 17 | 37.193 | 941.7 | 0.2985 | 42.315 | 881.3 | 0.3043 | 45.779 | 942.8 | 0.3053 |
| 18 | 35.728 | 935.5 | 0.2872 | 40.501 | 855.0 | 0.2925 | 43.767 | 915.4 | 0.2934 |
| 19 | 34.248 | 923.9 | 0.2764 | 38.669 | 829.2 | 0.2815 | 41.725 | 887.3 | 0.2822 |
| 20 | 32.513 | 905.8 | 0.2666 | 36.592 | 805.0 | 0.2716 | 39.439 | 860.3 | 0.2723 |
| 21 | 29.784 | 872.3 | 0.2574 | 33.440 | 776.0 | 0.2622 | 36.025 | 827.6 | 0.2630 |
| 22 | 26.267 | 830.9 | 0.2499 | 29.448 | 744.7 | 0.2547 | 31.729 | 791.3 | 0.2555 |
| 23 | 21.724 | 774.7 | 0.2432 | 24.285 | 705.8 | 0.2480 | 26.155 | 744.8 | 0.2488 |
| 24 | 9.924 | 656.6 | 0.2386 | 11.160 | 628.9 | 0.2437 | 12.095 | 648.7 | 0.2445 |
| 25 | 5.727 | 614.5 | 0.2343 | 6.423 | 599.7 | 0.2395 | 6.963 | 611.6 | 0.2405 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 10.193 | 651.9 | 0.7396 | | | | | | |
| 2 | 32.556 | 827.8 | 0.7396 | | | | | | |
| 3 | 41.857 | 832.5 | 0.7347 | | | | | | |
| 4 | 46.701 | 846.4 | 0.7014 | | | | | | |
| 5 | 49.330 | 846.8 | 0.6584 | | | | | | |
| 6 | 50.990 | 846.2 | 0.613 | | | | | | |
| 7 | 52.180 | 849.5 | 0.5694 | | | | | | |
| 8 | 53.138 | 857.6 | 0.5288 | | | | | | |
| 9 | 54.922 | 871.3 | 0.4913 | | | | | | |
| 10 | 55.667 | 883.8 | 0.4584 | | | | | | |
| 11 | 55.907 | 898.8 | 0.4288 | | | | | | |
| 12 | 55.844 | 915.8 | 0.4028 | | | | | | |
| 13 | 55.607 | 933.5 | 0.3799 | | | | | | |
| 14 | 55.170 | 952.3 | 0.3597 | | | | | | |
| 15 | 54.518 | 971.8 | 0.3416 | | | | | | |
| 16 | 53.588 | 990.7 | 0.3255 | | | | | | |
| 17 | 52.256 | 1006.5 | 0.3111 | | | | | | |
| 18 | 50.360 | 1017.1 | 0.2987 | | | | | | |
| 19 | 48.317 | 1017.0 | 0.2870 | | | | | | |
| 20 | 45.874 | 1002.7 | 0.2764 | | | | | | |
| 21 | 42.037 | 965.2 | 0.2666 | | | | | | |
| 22 | 37.116 | 912.6 | 0.2586 | | | | | | |
| 23 | 30.585 | 837.9 | 0.2515 | | | | | | |
| 24 | 14.348 | 690.6 | 0.2473 | | | | | | |
| 25 | 8.255 | 633.8 | 0.2434 | | | | | | |

Table 4-16. LS1 Burnup and TH Feedback Parameters Assembly B3

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.356 | 639.1 | 0.7396 | 2.489 | 642.8 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.680 | 870.8 | 0.7396 | 8.749 | 903.9 | 0.7396 |
| 3 | 0.000 | | 0.7344 | 6.540 | 956.5 | 0.7309 | 12.255 | 1004.9 | 0.7287 |
| 4 | 0.000 | Data | 0.6756 | 7.766 | 1057.0 | 0.6887 | 14.290 | 1091.5 | 0.6841 |
| 5 | 0.000 | Not | 0.6095 | 8.419 | 1115.0 | 0.6306 | 15.204 | 1121.2 | 0.6243 |
| 6 | 0.000 | Required | 0.5472 | 8.726 | 1143.5 | 0.5676 | 15.557 | 1126.5 | 0.5612 |
| 7 | 0.000 | | 0.4946 | 8.865 | 1156.6 | 0.5088 | 15.692 | 1126.0 | 0.5039 |
| 8 | 0.000 | | 0.4515 | 8.955 | 1165.2 | 0.4590 | 15.778 | 1125.6 | 0.4555 |
| 9 | 0.000 | | 0.4153 | 9.335 | 1202.2 | 0.4168 | 16.296 | 1141.6 | 0.4147 |
| 10 | 0.000 | | 0.3850 | 9.234 | 1192.3 | 0.3810 | 16.190 | 1141.0 | 0.3801 |
| 11 | 0.000 | | 0.3599 | 9.023 | 1171.8 | 0.3511 | 15.968 | 1139.7 | 0.3510 |
| 12 | 0.000 | | 0.3388 | 8.747 | 1145.5 | 0.3263 | 15.671 | 1137.3 | 0.3265 |
| 13 | 0.000 | | 0.3211 | 8.429 | 1116.0 | 0.3054 | 15.314 | 1132.7 | 0.3054 |
| 14 | 0.000 | | 0.3059 | 8.081 | 1084.6 | 0.2876 | 14.903 | 1125.4 | 0.2874 |
| 15 | 0.000 | | 0.2931 | 7.709 | 1052.0 | 0.2724 | 14.435 | 1114.4 | 0.2718 |
| 16 | 0.000 | | 0.2820 | 7.313 | 1018.6 | 0.2593 | 13.899 | 1098.5 | 0.2581 |
| 17 | 0.000 | | 0.2725 | 6.871 | 982.5 | 0.2481 | 13.255 | 1076.0 | 0.2461 |
| 18 | 0.000 | | 0.2647 | 6.241 | 933.5 | 0.2384 | 12.300 | 1040.8 | 0.2357 |
| 19 | 0.000 | | 0.2580 | 5.831 | 903.1 | 0.2301 | 11.589 | 1009.3 | 0.2266 |
| 20 | 0.000 | | 0.2523 | 5.465 | 876.8 | 0.2227 | 10.898 | 976.5 | 0.2185 |
| 21 | 0.000 | | 0.2474 | 5.058 | 848.5 | 0.2162 | 10.073 | 935.9 | 0.2114 |
| 22 | 0.000 | | 0.2432 | 4.463 | 808.9 | 0.2105 | 8.870 | 880.1 | 0.2053 |
| 23 | 0.000 | | 0.2397 | 3.806 | 767.3 | 0.2059 | 7.488 | 818.1 | 0.2003 |
| 24 | 0.000 | | 0.2373 | 1.742 | 650.0 | 0.2025 | 3.449 | 671.0 | 0.1969 |
| 25 | 0.000 | | 0.2361 | 1.083 | 616.2 | 0.2012 | 2.109 | 626.3 | 0.1954 |
| | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| Node | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| 1 | 4.208 | 647.7 | 0.7396 | 5.697 | 639.6 | 0.7396 | 7.484 | 673.0 | 0.7396 |
| 2 | 14.842 | 921.9 | 0.7396 | 19.755 | 856.7 | 0.7396 | 25.110 | 955.0 | 0.7396 |
| 3 | 20.183 | 985.2 | 0.7281 | 26.419 | 894.5 | 0.7297 | 32.896 | 984.0 | 0.7291 |
| 4 | 23.057 | 1045.7 | 0.6840 | 29.914 | 936.6 | 0.6880 | 36.779 | 1017.6 | 0.6875 |
| 5 | 24.260 | 1067.4 | 0.6258 | 31.408 | 957.1 | 0.6332 | 38.362 | 1025.5 | 0.6335 |
| 6 | 24.670 | 1071.8 | 0.5647 | 31.980 | 968.7 | 0.5753 | 38.915 | 1023.8 | 0.5765 |
| 7 | 24.806 | 1071.9 | 0.5088 | 32.244 | 978.0 | 0.5216 | 39.143 | 1020.6 | 0.5236 |
| 8 | 24.931 | 1074.9 | 0.4612 | 32.516 | 988.8 | 0.4755 | 39.401 | 1019.4 | 0.4779 |
| 9 | 25.637 | 1089.4 | 0.4210 | 33.465 | 1006.9 | 0.4357 | 40.426 | 1026.1 | 0.4385 |
| 10 | 25.531 | 1089.4 | 0.3868 | 33.488 | 1016.6 | 0.4017 | 40.418 | 1023.4 | 0.4048 |
| 11 | 25.241 | 1084.1 | 0.3578 | 33.313 | 1025.4 | 0.3727 | 40.179 | 1017.7 | 0.3760 |
| 12 | 24.828 | 1075.2 | 0.3331 | 33.009 | 1033.8 | 0.3478 | 39.789 | 1010.1 | 0.3511 |
| 13 | 24.330 | 1064.4 | 0.3119 | 32.615 | 1041.8 | 0.3263 | 39.294 | 1001.3 | 0.3296 |
| 14 | 23.754 | 1052.0 | 0.2936 | 32.138 | 1049.6 | 0.3076 | 38.703 | 991.5 | 0.3109 |
| 15 | 23.096 | 1037.8 | 0.2777 | 31.566 | 1056.4 | 0.2911 | 38.000 | 980.3 | 0.2944 |
| 16 | 22.336 | 1021.4 | 0.2638 | 30.866 | 1061.1 | 0.2765 | 37.148 | 967.5 | 0.2798 |
| 17 | 21.420 | 1001.9 | 0.2516 | 29.967 | 1062.5 | 0.2635 | 36.063 | 952.1 | 0.2668 |
| 18 | 20.138 | 978.9 | 0.2409 | 28.640 | 1058.9 | 0.2523 | 34.539 | 936.1 | 0.2555 |
| 19 | 18.976 | 948.2 | 0.2315 | 27.273 | 1042.8 | 0.2420 | 32.968 | 919.8 | 0.2453 |
| 20 | 17.707 | 910.3 | 0.2231 | 25.603 | 1012.0 | 0.2328 | 31.073 | 902.1 | 0.2361 |
| 21 | 16.053 | 858.8 | 0.2158 | 23.190 | 956.3 | 0.2247 | 28.244 | 870.5 | 0.2280 |
| 22 | 13.962 | 807.0 | 0.2096 | 20.197 | 894.4 | 0.2179 | 24.683 | 829.1 | 0.2212 |
| 23 | 11.577 | 752.4 | 0.2046 | 16.669 | 822.1 | 0.2122 | 20.331 | 772.8 | 0.2155 |
| 24 | 5.269 | 641.8 | 0.2012 | 7.605 | 671.2 | 0.2086 | 9.341 | 655.5 | 0.2120 |
| 25 | 3.154 | 607.5 | 0.1996 | 4.492 | 623.4 | 0.2066 | 5.474 | 614.3 | 0.2098 |

Table 4-16. LS1 Burnup and TH Feedback Parameters Assembly B3 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 8.603 | 675.9 | 0.7396 | 8.955 | 581.6 | 0.7396 | 9.095 | 574.6 | 0.7396 |
| 2 | 28.272 | 938.2 | 0.7396 | 29.211 | 618.4 | 0.7396 | 29.577 | 598.4 | 0.7396 |
| 3 | 36.636 | 954.0 | 0.7289 | 37.724 | 620.7 | 0.7297 | 38.140 | 600.3 | 0.7300 |
| 4 | 40.704 | 979.0 | 0.6878 | 41.876 | 625.4 | 0.6896 | 42.323 | 603.1 | 0.6903 |
| 5 | 42.344 | 986.9 | 0.6345 | 43.621 | 631.2 | 0.6379 | 44.106 | 606.6 | 0.6392 |
| 6 | 42.920 | 990.1 | 0.5782 | 44.325 | 638.3 | 0.5835 | 44.862 | 611.3 | 0.5856 |
| 7 | 43.164 | 992.4 | 0.5257 | 44.708 | 646.1 | 0.5330 | 45.305 | 616.9 | 0.5359 |
| 8 | 43.441 | 995.0 | 0.4803 | 45.122 | 653.9 | 0.4892 | 45.785 | 623.0 | 0.4930 |
| 9 | 44.522 | 1002.9 | 0.4410 | 46.345 | 662.0 | 0.4511 | 47.081 | 629.8 | 0.4557 |
| 10 | 44.521 | 1003.9 | 0.4074 | 46.453 | 668.3 | 0.4184 | 47.258 | 636.3 | 0.4238 |
| 11 | 44.283 | 1004.1 | 0.3786 | 46.306 | 673.6 | 0.3902 | 47.176 | 642.5 | 0.3962 |
| 12 | 43.892 | 1003.9 | 0.3537 | 45.986 | 677.8 | 0.3656 | 46.920 | 648.6 | 0.3721 |
| 13 | 43.395 | 1003.7 | 0.3322 | 45.540 | 680.8 | 0.3440 | 46.536 | 654.6 | 0.3510 |
| 14 | 42.799 | 1002.9 | 0.3134 | 44.977 | 682.7 | 0.3251 | 46.031 | 660.3 | 0.3323 |
| 15 | 42.087 | 1001.7 | 0.2968 | 44.283 | 683.8 | 0.3083 | 45.389 | 665.4 | 0.3156 |
| 16 | 41.219 | 999.4 | 0.2821 | 43.417 | 683.9 | 0.2934 | 44.567 | 669.7 | 0.3008 |
| 17 | 40.101 | 994.7 | 0.2690 | 42.284 | 683.0 | 0.2801 | 43.471 | 673.4 | 0.2876 |
| 18 | 38.529 | 988.0 | 0.2576 | 40.684 | 681.4 | 0.2685 | 41.899 | 676.2 | 0.2761 |
| 19 | 36.863 | 974.8 | 0.2472 | 38.964 | 678.2 | 0.2578 | 40.187 | 677.0 | 0.2654 |
| 20 | 34.817 | 954.2 | 0.2380 | 36.827 | 672.8 | 0.2484 | 38.035 | 675.5 | 0.2559 |
| 21 | 31.693 | 915.4 | 0.2297 | 33.537 | 663.2 | 0.2399 | 34.679 | 668.9 | 0.2474 |
| 22 | 27.744 | 866.8 | 0.2228 | 29.374 | 651.0 | 0.2329 | 30.413 | 658.8 | 0.2403 |
| 23 | 22.831 | 801.4 | 0.2171 | 24.135 | 632.7 | 0.2266 | 24.986 | 640.7 | 0.2338 |
| 24 | 10.552 | 669.4 | 0.2136 | 11.134 | 593.6 | 0.2226 | 11.517 | 597.3 | 0.2295 |
| 25 | 6.164 | 622.1 | 0.2114 | 6.463 | 578.6 | 0.2194 | 6.658 | 580.4 | 0.2254 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.255 | 570.1 | 0.7396 | | | | | | |
| 2 | 29.985 | 585.7 | 0.7396 | | | | | | |
| 3 | 38.594 | 587.4 | 0.7303 | | | | | | |
| 4 | 42.797 | 588.5 | 0.6911 | | | | | | |
| 5 | 44.610 | 590.1 | 0.6405 | | | | | | |
| 6 | 45.411 | 592.6 | 0.5876 | | | | | | |
| 7 | 45.917 | 596.0 | 0.5388 | | | | | | |
| 8 | 46.469 | 599.9 | 0.4968 | | | | | | |
| 9 | 47.854 | 604.8 | 0.4605 | | | | | | |
| 10 | 48.122 | 609.8 | 0.4297 | | | | | | |
| 11 | 48.141 | 615.4 | 0.4032 | | | | | | |
| 12 | 47.994 | 621.5 | 0.3804 | | | | | | |
| 13 | 47.729 | 628.2 | 0.3605 | | | | | | |
| 14 | 47.348 | 635.2 | 0.3430 | | | | | | |
| 15 | 46.835 | 642.6 | 0.3275 | | | | | | |
| 16 | 46.144 | 650.2 | 0.3136 | | | | | | |
| 17 | 45.179 | 657.8 | 0.3013 | | | | | | |
| 18 | 43.732 | 665.2 | 0.2906 | | | | | | |
| 19 | 42.117 | 671.0 | 0.2806 | | | | | | |
| 20 | 40.019 | 674.2 | 0.2714 | | | | | | |
| 21 | 36.624 | 671.9 | 0.2631 | | | | | | |
| 22 | 32.245 | 665.2 | 0.2563 | | | | | | |
| 23 | 26.519 | 647.6 | 0.2493 | | | | | | |
| 24 | 12.211 | 600.5 | 0.2444 | | | | | | |
| 25 | 7.010 | 581.9 | 0.2385 | | | | | | |

Table 4-17. LS1 Burnup and TH Feedback Parameters Assembly B4

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.027 | 619.2 | 0.7396 | 2.253 | 650.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.558 | 785.6 | 0.7396 | 8.013 | 944.4 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 5.128 | 907.1 | 0.7396 | 11.667 | 1193.6 | 0.7271 |
| 4 | 0.000 | Data | 0.7014 | 6.412 | 946.6 | 0.7108 | 14.092 | 1229.2 | 0.6812 |
| 5 | 0.000 | Not | 0.6422 | 7.346 | 1021.3 | 0.6650 | 15.337 | 1269.1 | 0.6220 |
| 6 | 0.000 | Required | 0.5818 | 7.984 | 1076.0 | 0.6090 | 15.914 | 1261.2 | 0.5607 |
| 7 | 0.000 | | 0.5271 | 8.408 | 1114.0 | 0.5510 | 16.194 | 1242.6 | 0.5045 |
| 8 | 0.000 | | 0.4804 | 8.732 | 1144.1 | 0.4975 | 16.391 | 1226.5 | 0.4560 |
| 9 | 0.000 | | 0.4404 | 9.301 | 1198.8 | 0.4501 | 17.013 | 1233.2 | 0.4144 |
| 10 | 0.000 | | 0.4064 | 9.287 | 1197.5 | 0.4096 | 16.918 | 1223.0 | 0.3782 |
| 11 | 0.000 | | 0.3782 | 9.084 | 1177.7 | 0.3760 | 16.645 | 1214.2 | 0.3478 |
| 12 | 0.000 | | 0.3547 | 8.781 | 1148.7 | 0.3483 | 16.275 | 1205.9 | 0.3222 |
| 13 | 0.000 | | 0.3350 | 8.425 | 1115.6 | 0.3251 | 15.848 | 1197.1 | 0.3005 |
| 14 | 0.000 | | 0.3185 | 8.040 | 1080.9 | 0.3057 | 15.378 | 1186.7 | 0.2818 |
| 15 | 0.000 | | 0.3044 | 7.634 | 1045.6 | 0.2892 | 14.862 | 1173.4 | 0.2658 |
| 16 | 0.000 | | 0.2924 | 7.208 | 1009.9 | 0.2752 | 14.283 | 1155.1 | 0.2518 |
| 17 | 0.000 | | 0.2824 | 6.732 | 971.5 | 0.2633 | 13.587 | 1129.3 | 0.2396 |
| 18 | 0.000 | | 0.2740 | 6.077 | 921.2 | 0.2531 | 12.577 | 1088.9 | 0.2288 |
| 19 | 0.000 | | 0.2671 | 5.696 | 893.3 | 0.2443 | 11.863 | 1052.4 | 0.2198 |
| 20 | 0.000 | | 0.2612 | 5.404 | 872.5 | 0.2365 | 11.215 | 1014.8 | 0.2121 |
| 21 | 0.000 | | 0.2560 | 5.078 | 849.9 | 0.2294 | 10.418 | 967.3 | 0.2053 |
| 22 | 0.000 | | 0.2517 | 4.514 | 812.2 | 0.2232 | 9.162 | 901.8 | 0.1996 |
| 23 | 0.000 | | 0.2482 | 3.850 | 770.0 | 0.2181 | 7.676 | 830.1 | 0.1952 |
| 24 | 0.000 | | 0.2459 | 1.768 | 651.4 | 0.2143 | 3.518 | 673.9 | 0.1919 |
| 25 | 0.000 | | 0.2446 | 1.095 | 616.8 | 0.2129 | 2.150 | 628.2 | 0.1907 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.101 | 654.7 | 0.7396 | 5.800 | 651.4 | 0.7396 | 7.569 | 671.8 | 0.7396 |
| 2 | 14.544 | 954.3 | 0.7396 | 20.098 | 903.8 | 0.7396 | 25.406 | 950.7 | 0.7396 |
| 3 | 20.137 | 1023.8 | 0.7253 | 27.069 | 941.9 | 0.7260 | 33.512 | 981.1 | 0.7262 |
| 4 | 23.376 | 1084.9 | 0.6786 | 30.845 | 980.2 | 0.6808 | 37.710 | 1017.6 | 0.6817 |
| 5 | 24.839 | 1102.0 | 0.6190 | 32.513 | 995.3 | 0.6233 | 39.515 | 1029.8 | 0.6255 |
| 6 | 25.405 | 1101.1 | 0.5578 | 33.200 | 1004.4 | 0.5644 | 40.223 | 1031.7 | 0.5675 |
| 7 | 25.644 | 1097.9 | 0.5025 | 33.564 | 1013.8 | 0.5109 | 40.570 | 1030.1 | 0.5145 |
| 8 | 25.858 | 1099.2 | 0.4551 | 33.928 | 1025.2 | 0.4648 | 40.926 | 1029.4 | 0.4688 |
| 9 | 26.657 | 1113.2 | 0.4148 | 34.980 | 1044.8 | 0.4251 | 42.035 | 1034.5 | 0.4293 |
| 10 | 26.564 | 1113.4 | 0.3798 | 35.044 | 1057.2 | 0.3907 | 42.056 | 1030.7 | 0.3952 |
| 11 | 26.229 | 1108.4 | 0.3502 | 34.860 | 1069.2 | 0.3614 | 41.799 | 1024.2 | 0.3661 |
| 12 | 25.753 | 1100.1 | 0.3252 | 34.531 | 1081.1 | 0.3363 | 41.373 | 1015.6 | 0.3411 |
| 13 | 25.191 | 1089.5 | 0.3038 | 34.112 | 1092.7 | 0.3147 | 40.839 | 1005.5 | 0.3195 |
| 14 | 24.564 | 1077.4 | 0.2853 | 33.619 | 1103.8 | 0.2959 | 40.215 | 994.2 | 0.3007 |
| 15 | 23.871 | 1063.9 | 0.2693 | 33.048 | 1114.0 | 0.2794 | 39.492 | 981.2 | 0.2842 |
| 16 | 23.094 | 1049.0 | 0.2553 | 32.372 | 1122.4 | 0.2647 | 38.633 | 965.8 | 0.2696 |
| 17 | 22.176 | 1032.5 | 0.2431 | 31.508 | 1127.0 | 0.2517 | 37.547 | 947.4 | 0.2566 |
| 18 | 20.922 | 1014.8 | 0.2323 | 30.241 | 1125.9 | 0.2403 | 36.030 | 927.2 | 0.2451 |
| 19 | 19.858 | 989.9 | 0.2229 | 28.983 | 1109.6 | 0.2300 | 34.513 | 906.8 | 0.2349 |
| 20 | 18.726 | 956.6 | 0.2147 | 27.441 | 1076.0 | 0.2209 | 32.702 | 886.1 | 0.2258 |
| 21 | 17.144 | 905.0 | 0.2076 | 25.061 | 1013.6 | 0.2130 | 29.889 | 853.8 | 0.2179 |
| 22 | 15.006 | 850.6 | 0.2017 | 21.969 | 944.0 | 0.2065 | 26.235 | 813.7 | 0.2113 |
| 23 | 12.475 | 790.6 | 0.1970 | 18.222 | 862.7 | 0.2011 | 21.686 | 759.8 | 0.2058 |
| 24 | 5.712 | 658.9 | 0.1937 | 8.430 | 690.4 | 0.1977 | 10.094 | 651.5 | 0.2025 |
| 25 | 3.435 | 618.0 | 0.1923 | 5.023 | 635.1 | 0.1959 | 5.964 | 612.1 | 0.2005 |

Table 4-17. LS1 Burnup and TH Feedback Parameters Assembly B4 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 8.678 | 674.8 | 0.7396 | 8.964 | 577.6 | 0.7396 | 9.082 | 572.4 | 0.7396 |
| 2 | 28.536 | 933.4 | 0.7396 | 29.298 | 607.1 | 0.7396 | 29.609 | 592.5 | 0.7396 |
| 3 | 37.212 | 948.3 | 0.7265 | 38.082 | 609.0 | 0.7271 | 38.433 | 594.4 | 0.7274 |
| 4 | 41.594 | 973.3 | 0.6827 | 42.528 | 612.4 | 0.6843 | 42.902 | 596.5 | 0.6849 |
| 5 | 43.465 | 982.4 | 0.6273 | 44.478 | 616.7 | 0.6302 | 44.881 | 599.1 | 0.6313 |
| 6 | 44.205 | 986.9 | 0.5702 | 45.322 | 622.4 | 0.5747 | 45.765 | 602.8 | 0.5763 |
| 7 | 44.573 | 989.8 | 0.5177 | 45.809 | 628.9 | 0.5239 | 46.300 | 607.1 | 0.5264 |
| 8 | 44.942 | 991.6 | 0.4721 | 46.305 | 636.0 | 0.4801 | 46.846 | 611.7 | 0.4832 |
| 9 | 46.097 | 998.1 | 0.4328 | 47.601 | 643.8 | 0.4421 | 48.200 | 617.1 | 0.4459 |
| 10 | 46.121 | 998.6 | 0.3988 | 47.745 | 650.6 | 0.4094 | 48.399 | 622.2 | 0.4139 |
| 11 | 45.862 | 998.3 | 0.3698 | 47.594 | 656.8 | 0.3813 | 48.303 | 627.3 | 0.3865 |
| 12 | 45.434 | 998.0 | 0.3448 | 47.261 | 662.2 | 0.3570 | 48.027 | 632.6 | 0.3628 |
| 13 | 44.899 | 997.8 | 0.3232 | 46.804 | 666.7 | 0.3357 | 47.627 | 638.0 | 0.3421 |
| 14 | 44.271 | 997.3 | 0.3043 | 46.239 | 670.4 | 0.3170 | 47.119 | 643.5 | 0.3238 |
| 15 | 43.541 | 996.3 | 0.2877 | 45.555 | 673.1 | 0.3004 | 46.488 | 648.5 | 0.3076 |
| 16 | 42.665 | 993.9 | 0.2730 | 44.710 | 674.9 | 0.2855 | 45.694 | 653.5 | 0.2930 |
| 17 | 41.543 | 988.8 | 0.2599 | 43.601 | 675.7 | 0.2723 | 44.632 | 658.0 | 0.2800 |
| 18 | 39.966 | 980.5 | 0.2483 | 42.023 | 675.6 | 0.2607 | 43.095 | 662.0 | 0.2686 |
| 19 | 38.341 | 965.6 | 0.2380 | 40.367 | 673.8 | 0.2502 | 41.463 | 664.4 | 0.2582 |
| 20 | 36.367 | 943.7 | 0.2288 | 38.326 | 669.9 | 0.2408 | 39.425 | 664.7 | 0.2488 |
| 21 | 33.256 | 904.9 | 0.2207 | 35.068 | 661.4 | 0.2325 | 36.122 | 660.3 | 0.2406 |
| 22 | 29.216 | 857.2 | 0.2140 | 30.834 | 650.3 | 0.2256 | 31.808 | 652.5 | 0.2337 |
| 23 | 24.111 | 793.1 | 0.2085 | 25.412 | 632.5 | 0.2195 | 26.217 | 636.3 | 0.2273 |
| 24 | 11.280 | 667.1 | 0.2052 | 11.851 | 593.0 | 0.2154 | 12.209 | 595.0 | 0.2228 |
| 25 | 6.639 | 620.8 | 0.2031 | 6.926 | 578.0 | 0.2119 | 7.105 | 578.9 | 0.2182 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.225 | 569.1 | 0.7396 | | | | | | |
| 2 | 29.975 | 583.0 | 0.7396 | | | | | | |
| 3 | 38.836 | 584.7 | 0.7277 | | | | | | |
| 4 | 43.319 | 585.4 | 0.6856 | | | | | | |
| 5 | 45.320 | 586.6 | 0.6325 | | | | | | |
| 6 | 46.241 | 588.6 | 0.5782 | | | | | | |
| 7 | 46.826 | 591.3 | 0.5289 | | | | | | |
| 8 | 47.432 | 594.6 | 0.4866 | | | | | | |
| 9 | 48.857 | 598.5 | 0.4501 | | | | | | |
| 10 | 49.131 | 602.6 | 0.4190 | | | | | | |
| 11 | 49.118 | 607.1 | 0.3926 | | | | | | |
| 12 | 48.934 | 612.2 | 0.3700 | | | | | | |
| 13 | 48.635 | 617.8 | 0.3504 | | | | | | |
| 14 | 48.235 | 623.9 | 0.3333 | | | | | | |
| 15 | 47.720 | 630.4 | 0.3182 | | | | | | |
| 16 | 47.046 | 637.2 | 0.3048 | | | | | | |
| 17 | 46.108 | 644.3 | 0.2929 | | | | | | |
| 18 | 44.695 | 651.5 | 0.2825 | | | | | | |
| 19 | 43.166 | 657.5 | 0.2730 | | | | | | |
| 20 | 41.193 | 661.4 | 0.2642 | | | | | | |
| 21 | 37.874 | 660.4 | 0.2563 | | | | | | |
| 22 | 33.479 | 655.7 | 0.2499 | | | | | | |
| 23 | 27.630 | 640.7 | 0.2433 | | | | | | |
| 24 | 12.843 | 597.2 | 0.2377 | | | | | | |
| 25 | 7.423 | 580.1 | 0.2311 | | | | | | |

Table 4-18. LS1 Burnup and TH Feedback Parameters Assembly B5

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.115 | 624.5 | 0.7396 | 2.106 | 632.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.851 | 807.1 | 0.7396 | 7.432 | 854.9 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 5.443 | 933.4 | 0.7394 | 10.729 | 962.0 | 0.7357 |
| 4 | 0.000 | Data | 0.6979 | 6.604 | 961.4 | 0.7094 | 12.923 | 1068.9 | 0.7001 |
| 5 | 0.000 | Not | 0.6387 | 7.339 | 1020.7 | 0.6647 | 14.058 | 1113.6 | 0.6496 |
| 6 | 0.000 | Required | 0.5797 | 7.775 | 1057.7 | 0.6108 | 14.561 | 1121.3 | 0.5924 |
| 7 | 0.000 | | 0.5274 | 8.020 | 1079.2 | 0.5550 | 14.754 | 1115.3 | 0.5363 |
| 8 | 0.000 | | 0.4830 | 8.178 | 1093.2 | 0.5038 | 14.859 | 1109.3 | 0.4867 |
| 9 | 0.000 | | 0.4454 | 8.588 | 1130.6 | 0.4586 | 15.373 | 1121.2 | 0.4441 |
| 10 | 0.000 | | 0.4133 | 8.509 | 1123.3 | 0.4200 | 15.241 | 1115.1 | 0.4075 |
| 11 | 0.000 | | 0.3866 | 8.311 | 1105.2 | 0.3879 | 14.983 | 1108.2 | 0.3768 |
| 12 | 0.000 | | 0.3642 | 8.050 | 1081.8 | 0.3610 | 14.658 | 1101.0 | 0.3507 |
| 13 | 0.000 | | 0.3452 | 7.752 | 1055.7 | 0.3381 | 14.286 | 1092.7 | 0.3284 |
| 14 | 0.000 | | 0.3291 | 7.428 | 1028.2 | 0.3188 | 13.873 | 1082.7 | 0.3093 |
| 15 | 0.000 | | 0.3154 | 7.085 | 999.8 | 0.3023 | 13.418 | 1070.4 | 0.2927 |
| 16 | 0.000 | | 0.3035 | 6.723 | 970.8 | 0.2881 | 12.910 | 1054.5 | 0.2782 |
| 17 | 0.000 | | 0.2935 | 6.316 | 939.2 | 0.2757 | 12.302 | 1033.1 | 0.2654 |
| 18 | 0.000 | | 0.2851 | 5.731 | 895.8 | 0.2652 | 11.383 | 998.5 | 0.2543 |
| 19 | 0.000 | | 0.2779 | 5.380 | 870.8 | 0.2561 | 10.758 | 971.0 | 0.2448 |
| 20 | 0.000 | | 0.2718 | 5.086 | 850.4 | 0.2481 | 10.187 | 944.1 | 0.2363 |
| 21 | 0.000 | | 0.2665 | 4.756 | 828.1 | 0.2408 | 9.497 | 910.3 | 0.2288 |
| 22 | 0.000 | | 0.2621 | 4.221 | 793.3 | 0.2346 | 8.391 | 859.3 | 0.2224 |
| 23 | 0.000 | | 0.2583 | 3.613 | 755.5 | 0.2294 | 7.099 | 802.2 | 0.2173 |
| 24 | 0.000 | | 0.2559 | 1.662 | 645.8 | 0.2258 | 3.274 | 664.6 | 0.2138 |
| 25 | 0.000 | | 0.2547 | 1.027 | 613.4 | 0.2242 | 1.994 | 622.6 | 0.2123 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 3.769 | 644.7 | 0.7396 | 5.348 | 644.6 | 0.7396 | 6.353 | 621.7 | 0.7396 |
| 2 | 13.428 | 914.8 | 0.7396 | 18.685 | 881.7 | 0.7396 | 21.884 | 774.4 | 0.7396 |
| 3 | 18.593 | 980.8 | 0.7326 | 25.185 | 918.4 | 0.7322 | 29.154 | 793.3 | 0.7342 |
| 4 | 21.579 | 1037.5 | 0.6944 | 28.726 | 957.0 | 0.6945 | 33.032 | 816.5 | 0.6992 |
| 5 | 22.964 | 1056.1 | 0.6428 | 30.330 | 972.8 | 0.6441 | 34.874 | 833.3 | 0.6523 |
| 6 | 23.519 | 1060.0 | 0.5859 | 31.000 | 981.1 | 0.5890 | 35.901 | 859.1 | 0.6011 |
| 7 | 23.723 | 1060.8 | 0.5311 | 31.315 | 989.3 | 0.5362 | 36.376 | 871.0 | 0.5510 |
| 8 | 23.872 | 1064.2 | 0.4829 | 31.607 | 999.9 | 0.4896 | 36.735 | 876.0 | 0.5058 |
| 9 | 24.579 | 1078.9 | 0.4415 | 32.563 | 1018.7 | 0.4492 | 37.771 | 882.0 | 0.4657 |
| 10 | 24.455 | 1079.5 | 0.4060 | 32.577 | 1029.2 | 0.4144 | 37.781 | 881.7 | 0.4311 |
| 11 | 24.141 | 1075.2 | 0.3759 | 32.390 | 1039.0 | 0.3845 | 37.566 | 879.6 | 0.4011 |
| 12 | 23.712 | 1067.3 | 0.3502 | 32.081 | 1048.4 | 0.3589 | 37.210 | 876.1 | 0.3751 |
| 13 | 23.206 | 1057.2 | 0.3281 | 31.689 | 1057.4 | 0.3366 | 36.756 | 871.4 | 0.3526 |
| 14 | 22.634 | 1045.3 | 0.3090 | 31.220 | 1065.6 | 0.3172 | 36.209 | 865.6 | 0.3327 |
| 15 | 21.992 | 1031.4 | 0.2924 | 30.663 | 1072.4 | 0.3001 | 35.556 | 858.5 | 0.3152 |
| 16 | 21.261 | 1015.2 | 0.2777 | 29.987 | 1076.9 | 0.2850 | 34.763 | 850.0 | 0.2997 |
| 17 | 20.383 | 996.0 | 0.2649 | 29.113 | 1077.2 | 0.2715 | 33.747 | 839.7 | 0.2859 |
| 18 | 19.142 | 973.5 | 0.2537 | 27.813 | 1072.4 | 0.2596 | 32.303 | 829.4 | 0.2738 |
| 19 | 18.072 | 943.3 | 0.2439 | 26.518 | 1054.5 | 0.2490 | 30.897 | 821.6 | 0.2631 |
| 20 | 16.931 | 906.2 | 0.2353 | 24.960 | 1022.1 | 0.2396 | 29.404 | 826.2 | 0.2544 |
| 21 | 15.431 | 856.0 | 0.2279 | 22.683 | 964.5 | 0.2314 | 26.992 | 816.7 | 0.2466 |
| 22 | 13.451 | 805.2 | 0.2216 | 19.797 | 901.8 | 0.2246 | 23.676 | 787.2 | 0.2396 |
| 23 | 11.157 | 750.7 | 0.2166 | 16.352 | 828.3 | 0.2190 | 19.529 | 741.5 | 0.2335 |
| 24 | 5.051 | 639.9 | 0.2133 | 7.425 | 673.1 | 0.2155 | 8.886 | 640.2 | 0.2297 |
| 25 | 3.011 | 606.3 | 0.2119 | 4.373 | 624.5 | 0.2137 | 5.276 | 610.0 | 0.2287 |

Table 4-18. LS1 Burnup and TH Feedback Parameters Assembly B5 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|---------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 7.168 | 642.8 | 0.7396 | 7.519 | 581.5 | 0.7396 | 7.664 | 575.2 | 0.7396 |
| 2 | 24.289 | 832.1 | 0.7396 | 25.278 | 621.7 | 0.7396 | 25.680 | 602.2 | 0.7396 |
| 3 | 32.011 | 842.4 | 0.7343 | 33.162 | 624.2 | 0.7351 | 33.625 | 604.6 | 0.7354 |
| 4 | 36.038 | 860.2 | 0.7000 | 37.269 | 628.6 | 0.7018 | 37.758 | 606.9 | 0.7025 |
| 5 | 38.024 | 877.7 | 0.6544 | 39.340 | 633.3 | 0.6576 | 39.859 | 609.7 | 0.6589 |
| 6 | 39.409 | 923.0 | 0.6046 | 40.820 | 638.6 | 0.6095 | 41.374 | 612.9 | 0.6114 |
| 7 | 40.031 | 942.3 | 0.5552 | 41.574 | 646.0 | 0.5619 | 42.178 | 617.5 | 0.5647 |
| 8 | 40.439 | 948.9 | 0.5102 | 42.130 | 654.4 | 0.5187 | 42.792 | 622.9 | 0.5222 |
| 9 | 41.537 | 957.2 | 0.4702 | 43.394 | 664.0 | 0.4800 | 44.123 | 629.2 | 0.4843 |
| 10 | 41.565 | 959.6 | 0.4355 | 43.558 | 671.9 | 0.4462 | 44.347 | 634.8 | 0.4513 |
| 11 | 41.360 | 961.0 | 0.4055 | 43.470 | 678.7 | 0.4168 | 44.317 | 640.3 | 0.4225 |
| 12 | 41.017 | 962.8 | 0.3795 | 43.223 | 684.4 | 0.3911 | 44.128 | 645.9 | 0.3972 |
| 13 | 40.590 | 966.4 | 0.3568 | 42.870 | 688.8 | 0.3684 | 43.832 | 651.3 | 0.3749 |
| 14 | 40.051 | 967.5 | 0.3368 | 42.385 | 692.0 | 0.3483 | 43.403 | 656.8 | 0.3552 |
| 15 | 39.396 | 967.3 | 0.3191 | 41.765 | 694.1 | 0.3304 | 42.835 | 661.9 | 0.3374 |
| 16 | 38.593 | 965.9 | 0.3034 | 40.978 | 695.1 | 0.3144 | 42.098 | 666.8 | 0.3216 |
| 17 | 37.548 | 962.0 | 0.2893 | 39.935 | 695.2 | 0.3002 | 41.098 | 671.0 | 0.3074 |
| 18 | 36.061 | 956.1 | 0.2770 | 38.435 | 694.4 | 0.2877 | 39.640 | 675.2 | 0.2951 |
| 19 | 34.565 | 944.1 | 0.2661 | 36.890 | 691.5 | 0.2765 | 38.120 | 677.7 | 0.2841 |
| 20 | 32.912 | 923.0 | 0.2571 | 35.141 | 685.8 | 0.2671 | 36.368 | 677.4 | 0.2745 |
| 21 | 30.212 | 886.4 | 0.2489 | 32.260 | 675.1 | 0.2586 | 33.433 | 672.0 | 0.2659 |
| 22 | 26.539 | 843.1 | 0.2417 | 28.357 | 661.7 | 0.2512 | 29.439 | 663.0 | 0.2585 |
| 23 | 21.868 | 783.6 | 0.2354 | 23.328 | 641.4 | 0.2443 | 24.221 | 644.7 | 0.2514 |
| 24 | 10.006 | 660.9 | 0.2316 | 10.655 | 597.2 | 0.2402 | 11.055 | 598.8 | 0.2469 |
| 25 | 5.938 | 619.6 | 0.2310 | 6.267 | 580.2 | 0.2383 | 6.468 | 580.9 | 0.2441 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 7.850 | 571.8 | 0.7396 | | | | | | |
| 2 | 26.181 | 591.6 | 0.7396 | | | | | | |
| 3 | 34.187 | 593.3 | 0.7357 | | | | | | |
| 4 | 38.336 | 594.2 | 0.7033 | | | | | | |
| 5 | 40.457 | 595.3 | 0.6603 | | | | | | |
| 6 | 42.005 | 597.0 | 0.6136 | | | | | | |
| 7 | 42.864 | 600.1 | 0.5677 | | | | | | |
| 8 | 43.547 | 603.8 | 0.5262 | | | | | | |
| 9 | 44.966 | 608.7 | 0.4893 | | | | | | |
| 10 | 45.282 | 613.8 | 0.4575 | | | | | | |
| 11 | 45.351 | 619.3 | 0.4298 | | | | | | |
| 12 | 45.271 | 625.4 | 0.4057 | | | | | | |
| 13 | 45.090 | 631.9 | 0.3846 | | | | | | |
| 14 | 44.785 | 638.9 | 0.3659 | | | | | | |
| 15 | 44.347 | 646.4 | 0.3492 | | | | | | |
| 16 | 43.741 | 654.0 | 0.3342 | | | | | | |
| 17 | 42.874 | 661.8 | 0.3208 | | | | | | |
| 18 | 41.543 | 669.4 | 0.3093 | | | | | | |
| 19 | 40.123 | 675.4 | 0.2986 | | | | | | |
| 20 | 38.424 | 678.6 | 0.2892 | | | | | | |
| 21 | 35.446 | 676.0 | 0.2807 | | | | | | |
| 22 | 31.339 | 669.2 | 0.2734 | | | | | | |
| 23 | 25.816 | 651.2 | 0.2660 | | | | | | |
| 24 | 11.776 | 602.0 | 0.2609 | | | | | | |
| 25 | 6.829 | 582.4 | 0.2560 | | | | | | |

Table 4-19. LS1 Burnup and TH Feedback Parameters Assembly B6

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.116 | 624.6 | 0.7396 | 2.178 | 637.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.888 | 809.9 | 0.7396 | 7.732 | 881.0 | 0.7396 |
| 3 | 0.000 | | 0.7333 | 5.529 | 881.3 | 0.7388 | 11.141 | 994.4 | 0.7331 |
| 4 | 0.000 | Data | 0.6724 | 6.725 | 970.9 | 0.7075 | 13.341 | 1101.9 | 0.6945 |
| 5 | 0.000 | Not | 0.6049 | 7.472 | 1031.9 | 0.6611 | 14.439 | 1142.3 | 0.6412 |
| 6 | 0.000 | Required | 0.5418 | 7.903 | 1068.9 | 0.6057 | 14.908 | 1146.8 | 0.5823 |
| 7 | 0.000 | | 0.4890 | 8.139 | 1089.7 | 0.5492 | 15.084 | 1139.7 | 0.5260 |
| 8 | 0.000 | | 0.4459 | 8.294 | 1103.7 | 0.4978 | 15.181 | 1133.0 | 0.4767 |
| 9 | 0.000 | | 0.4100 | 8.708 | 1141.8 | 0.4529 | 15.697 | 1144.9 | 0.4347 |
| 10 | 0.000 | | 0.3798 | 8.633 | 1134.8 | 0.4146 | 15.572 | 1139.0 | 0.3986 |
| 11 | 0.000 | | 0.3549 | 8.433 | 1116.3 | 0.3826 | 15.314 | 1132.3 | 0.3682 |
| 12 | 0.000 | | 0.3341 | 8.162 | 1091.8 | 0.3559 | 14.980 | 1125.0 | 0.3424 |
| 13 | 0.000 | | 0.3165 | 7.850 | 1064.2 | 0.3334 | 14.595 | 1116.6 | 0.3205 |
| 14 | 0.000 | | 0.3016 | 7.513 | 1035.3 | 0.3143 | 14.176 | 1107.2 | 0.3016 |
| 15 | 0.000 | | 0.2890 | 7.165 | 1006.3 | 0.2980 | 13.736 | 1096.8 | 0.2853 |
| 16 | 0.000 | | 0.2782 | 6.810 | 977.7 | 0.2840 | 13.270 | 1084.4 | 0.2709 |
| 17 | 0.000 | | 0.2690 | 6.427 | 947.7 | 0.2719 | 12.740 | 1068.2 | 0.2583 |
| 18 | 0.000 | | 0.2612 | 5.889 | 907.3 | 0.2614 | 11.935 | 1039.4 | 0.2471 |
| 19 | 0.000 | | 0.2547 | 5.611 | 887.2 | 0.2524 | 11.437 | 1016.3 | 0.2374 |
| 20 | 0.000 | | 0.2491 | 5.408 | 872.8 | 0.2441 | 10.976 | 990.0 | 0.2288 |
| 21 | 0.000 | | 0.2444 | 5.143 | 854.3 | 0.2364 | 10.325 | 951.9 | 0.2212 |
| 22 | 0.000 | | 0.2403 | 4.614 | 818.7 | 0.2297 | 9.181 | 894.4 | 0.2147 |
| 23 | 0.000 | | 0.2368 | 3.952 | 776.3 | 0.2242 | 7.759 | 828.5 | 0.2094 |
| 24 | 0.000 | | 0.2344 | 1.809 | 653.6 | 0.2203 | 3.561 | 674.0 | 0.2057 |
| 25 | 0.000 | | 0.2332 | 1.113 | 617.7 | 0.2186 | 2.164 | 627.9 | 0.2042 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.413 | 675.9 | 0.7396 | 6.112 | 651.4 | 0.7396 | 7.386 | 639.0 | 0.7396 |
| 2 | 15.562 | 1056.9 | 0.7396 | 20.980 | 893.6 | 0.7396 | 24.780 | 821.4 | 0.7396 |
| 3 | 21.059 | 1135.2 | 0.7212 | 27.731 | 923.9 | 0.7231 | 32.369 | 840.0 | 0.7250 |
| 4 | 23.904 | 1188.9 | 0.6725 | 31.091 | 959.9 | 0.6765 | 36.110 | 867.9 | 0.6809 |
| 5 | 24.996 | 1188.3 | 0.6128 | 32.452 | 979.3 | 0.6195 | 37.680 | 883.6 | 0.6268 |
| 6 | 25.288 | 1173.4 | 0.5527 | 32.955 | 994.8 | 0.5619 | 38.364 | 897.4 | 0.5721 |
| 7 | 25.317 | 1161.1 | 0.4984 | 33.189 | 1010.2 | 0.5095 | 38.902 | 921.2 | 0.5223 |
| 8 | 25.339 | 1154.9 | 0.4522 | 33.408 | 1025.1 | 0.4643 | 39.292 | 934.8 | 0.4784 |
| 9 | 25.966 | 1164.1 | 0.4130 | 34.320 | 1047.2 | 0.4255 | 40.436 | 953.7 | 0.4400 |
| 10 | 25.792 | 1160.0 | 0.3792 | 34.320 | 1061.0 | 0.3919 | 40.835 | 987.2 | 0.4074 |
| 11 | 25.453 | 1153.3 | 0.3506 | 34.142 | 1073.9 | 0.3631 | 40.784 | 998.1 | 0.3781 |
| 12 | 25.012 | 1144.5 | 0.3263 | 33.854 | 1086.3 | 0.3384 | 40.564 | 1004.0 | 0.3528 |
| 13 | 24.505 | 1134.6 | 0.3053 | 33.489 | 1097.9 | 0.3170 | 40.476 | 1028.4 | 0.3315 |
| 14 | 23.946 | 1123.3 | 0.2872 | 33.058 | 1108.5 | 0.2983 | 40.047 | 1028.6 | 0.3118 |
| 15 | 23.345 | 1110.4 | 0.2713 | 32.561 | 1117.2 | 0.2817 | 39.419 | 1017.0 | 0.2942 |
| 16 | 22.694 | 1095.8 | 0.2574 | 31.983 | 1123.4 | 0.2670 | 38.657 | 1000.9 | 0.2786 |
| 17 | 21.946 | 1078.9 | 0.2451 | 31.264 | 1125.8 | 0.2538 | 37.679 | 978.7 | 0.2646 |
| 18 | 20.889 | 1059.7 | 0.2339 | 30.191 | 1124.5 | 0.2420 | 36.310 | 954.0 | 0.2521 |
| 19 | 20.011 | 1031.4 | 0.2245 | 29.161 | 1111.7 | 0.2315 | 34.961 | 928.1 | 0.2411 |
| 20 | 19.023 | 993.6 | 0.2162 | 27.859 | 1085.8 | 0.2223 | 33.344 | 903.3 | 0.2315 |
| 21 | 17.531 | 936.2 | 0.2092 | 25.682 | 1031.5 | 0.2143 | 30.686 | 866.7 | 0.2232 |
| 22 | 15.451 | 876.5 | 0.2031 | 22.736 | 967.1 | 0.2074 | 27.157 | 824.4 | 0.2160 |
| 23 | 12.912 | 810.5 | 0.1982 | 19.001 | 884.8 | 0.2019 | 22.595 | 768.3 | 0.2100 |
| 24 | 5.911 | 666.2 | 0.1949 | 8.834 | 700.9 | 0.1983 | 10.567 | 655.4 | 0.2066 |
| 25 | 3.545 | 622.2 | 0.1936 | 5.252 | 640.7 | 0.1966 | 6.239 | 614.5 | 0.2046 |

Table 4-19. LS1 Burnup and TH Feedback Parameters Assembly B6 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|---------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 8.295 | 652.9 | 0.7396 | 8.625 | 580.2 | 0.7396 | 8.758 | 573.9 | 0.7396 |
| 2 | 27.359 | 855.4 | 0.7396 | 28.266 | 616.4 | 0.7396 | 28.622 | 597.3 | 0.7396 |
| 3 | 35.453 | 869.6 | 0.7257 | 36.516 | 619.4 | 0.7266 | 36.926 | 599.8 | 0.7269 |
| 4 | 39.392 | 894.1 | 0.6828 | 40.547 | 624.5 | 0.6848 | 40.988 | 602.6 | 0.6855 |
| 5 | 41.058 | 906.3 | 0.6300 | 42.320 | 630.4 | 0.6336 | 42.796 | 605.8 | 0.6350 |
| 6 | 41.800 | 913.7 | 0.5763 | 43.188 | 637.3 | 0.5818 | 43.709 | 609.9 | 0.5838 |
| 7 | 42.367 | 917.4 | 0.5273 | 43.892 | 645.0 | 0.5347 | 44.459 | 614.1 | 0.5374 |
| 8 | 42.792 | 922.0 | 0.4839 | 44.470 | 653.7 | 0.4930 | 45.089 | 618.9 | 0.4965 |
| 9 | 43.998 | 930.1 | 0.4458 | 45.849 | 663.6 | 0.4561 | 46.526 | 624.3 | 0.4603 |
| 10 | 44.390 | 929.1 | 0.4132 | 46.379 | 671.6 | 0.4244 | 47.104 | 628.8 | 0.4293 |
| 11 | 44.351 | 930.7 | 0.3841 | 46.476 | 679.6 | 0.3960 | 47.250 | 633.4 | 0.4013 |
| 12 | 44.139 | 931.8 | 0.3588 | 46.382 | 686.6 | 0.3710 | 47.209 | 638.4 | 0.3768 |
| 13 | 44.027 | 928.6 | 0.3373 | 46.354 | 691.6 | 0.3494 | 47.227 | 642.8 | 0.3556 |
| 14 | 43.595 | 928.2 | 0.3176 | 45.997 | 696.1 | 0.3296 | 46.924 | 648.0 | 0.3362 |
| 15 | 42.965 | 928.0 | 0.3000 | 45.426 | 699.7 | 0.3118 | 46.409 | 653.4 | 0.3187 |
| 16 | 42.187 | 925.9 | 0.2843 | 44.685 | 702.0 | 0.2960 | 45.724 | 658.8 | 0.3030 |
| 17 | 41.175 | 921.5 | 0.2702 | 43.688 | 702.9 | 0.2817 | 44.781 | 664.1 | 0.2889 |
| 18 | 39.760 | 915.5 | 0.2576 | 42.269 | 702.6 | 0.2690 | 43.413 | 669.1 | 0.2765 |
| 19 | 38.328 | 904.9 | 0.2465 | 40.791 | 699.8 | 0.2575 | 41.973 | 672.9 | 0.2652 |
| 20 | 36.582 | 888.6 | 0.2367 | 38.951 | 694.1 | 0.2474 | 40.150 | 674.6 | 0.2551 |
| 21 | 33.681 | 858.9 | 0.2282 | 35.859 | 682.7 | 0.2384 | 37.021 | 670.9 | 0.2462 |
| 22 | 29.836 | 821.7 | 0.2209 | 31.768 | 668.3 | 0.2308 | 32.852 | 663.2 | 0.2386 |
| 23 | 24.793 | 768.3 | 0.2147 | 26.344 | 646.5 | 0.2240 | 27.246 | 645.6 | 0.2316 |
| 24 | 11.658 | 658.2 | 0.2113 | 12.351 | 599.5 | 0.2200 | 12.759 | 599.6 | 0.2272 |
| 25 | 6.892 | 618.8 | 0.2098 | 7.245 | 581.5 | 0.2173 | 7.451 | 581.4 | 0.2235 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 8.942 | 571.6 | 0.7396 | | | | | | |
| 2 | 29.105 | 590.4 | 0.7396 | | | | | | |
| 3 | 37.468 | 592.2 | 0.7274 | | | | | | |
| 4 | 41.553 | 593.5 | 0.6865 | | | | | | |
| 5 | 43.392 | 595.1 | 0.6366 | | | | | | |
| 6 | 44.349 | 597.5 | 0.5863 | | | | | | |
| 7 | 45.156 | 600.7 | 0.5408 | | | | | | |
| 8 | 45.853 | 604.3 | 0.5008 | | | | | | |
| 9 | 47.376 | 609.1 | 0.4655 | | | | | | |
| 10 | 48.031 | 613.3 | 0.4354 | | | | | | |
| 11 | 48.267 | 618.3 | 0.4086 | | | | | | |
| 12 | 48.323 | 623.7 | 0.3851 | | | | | | |
| 13 | 48.442 | 629.4 | 0.3648 | | | | | | |
| 14 | 48.254 | 636.0 | 0.3464 | | | | | | |
| 15 | 47.863 | 643.1 | 0.3298 | | | | | | |
| 16 | 47.308 | 650.6 | 0.3151 | | | | | | |
| 17 | 46.497 | 658.3 | 0.3018 | | | | | | |
| 18 | 45.262 | 666.2 | 0.2900 | | | | | | |
| 19 | 43.929 | 672.6 | 0.2793 | | | | | | |
| 20 | 42.169 | 676.3 | 0.2695 | | | | | | |
| 21 | 39.010 | 674.5 | 0.2607 | | | | | | |
| 22 | 34.738 | 668.4 | 0.2533 | | | | | | |
| 23 | 28.843 | 651.4 | 0.2460 | | | | | | |
| 24 | 13.493 | 602.7 | 0.2409 | | | | | | |
| 25 | 7.823 | 583.0 | 0.2353 | | | | | | |

Table 4-20. LS1 Burnup and TH Feedback Parameters Assembly B7

| Node No. | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|-------------|-------------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.075 | 622.1 | 0.7396 | 2.292 | 649.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.769 | 801.0 | 0.7396 | 8.150 | 936.5 | 0.7396 |
| 3 | 0.000 | | 0.7315 | 5.399 | 872.1 | 0.7389 | 11.681 | 1064.8 | 0.7279 |
| 4 | 0.000 | Data | 0.6686 | 6.658 | 965.7 | 0.7073 | 13.930 | 1178.7 | 0.6840 |
| 5 | 0.000 | Not | 0.5988 | 7.527 | 1036.5 | 0.6597 | 15.086 | 1214.0 | 0.6263 |
| 6 | 0.000 | Required | 0.5339 | 8.097 | 1086.0 | 0.6024 | 15.639 | 1211.9 | 0.5653 |
| 7 | 0.000 | | 0.4800 | 8.460 | 1118.8 | 0.5440 | 15.912 | 1200.7 | 0.5085 |
| 8 | 0.000 | | 0.4359 | 8.723 | 1143.2 | 0.4910 | 16.093 | 1190.6 | 0.4594 |
| 9 | 0.000 | | 0.3992 | 9.234 | 1192.3 | 0.4447 | 16.690 | 1201.2 | 0.4177 |
| 10 | 0.000 | | 0.3685 | 9.215 | 1190.4 | 0.4051 | 16.622 | 1195.2 | 0.3814 |
| 11 | 0.000 | | 0.3433 | 9.042 | 1173.6 | 0.3722 | 16.412 | 1190.6 | 0.3511 |
| 12 | 0.000 | | 0.3222 | 8.782 | 1148.8 | 0.3447 | 16.121 | 1186.8 | 0.3253 |
| 13 | 0.000 | | 0.3047 | 8.474 | 1120.1 | 0.3217 | 15.787 | 1183.7 | 0.3033 |
| 14 | 0.000 | | 0.2898 | 8.139 | 1089.7 | 0.3022 | 15.416 | 1179.3 | 0.2844 |
| 15 | 0.000 | | 0.2773 | 7.782 | 1058.3 | 0.2857 | 15.003 | 1172.5 | 0.2680 |
| 16 | 0.000 | | 0.2665 | 7.404 | 1026.1 | 0.2716 | 14.526 | 1160.7 | 0.2538 |
| 17 | 0.000 | | 0.2575 | 6.985 | 991.7 | 0.2595 | 13.950 | 1142.1 | 0.2413 |
| 18 | 0.000 | | 0.2499 | 6.397 | 945.4 | 0.2491 | 13.084 | 1109.9 | 0.2301 |
| 19 | 0.000 | | 0.2436 | 6.082 | 921.6 | 0.2401 | 12.496 | 1079.3 | 0.2207 |
| 20 | 0.000 | | 0.2380 | 5.846 | 904.2 | 0.2318 | 11.934 | 1043.9 | 0.2125 |
| 21 | 0.000 | | 0.2330 | 5.545 | 882.5 | 0.2243 | 11.158 | 994.5 | 0.2053 |
| 22 | 0.000 | | 0.2288 | 4.970 | 842.5 | 0.2176 | 9.898 | 927.7 | 0.1991 |
| 23 | 0.000 | | 0.2254 | 4.254 | 795.4 | 0.2121 | 8.345 | 852.5 | 0.1941 |
| 24 | 0.000 | | 0.2232 | 1.949 | 661.0 | 0.2082 | 3.831 | 682.9 | 0.1905 |
| 25 | 0.000 | | 0.2220 | 1.203 | 622.2 | 0.2067 | 2.338 | 633.3 | 0.1891 |
| Node No. | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 3.717 | 632.1 | 0.7396 | 4.643 | 608.7 | 0.7396 | 6.338 | 666.8 | 0.7396 |
| 2 | 13.211 | 849.4 | 0.7396 | 16.306 | 734.7 | 0.7396 | 21.642 | 953.3 | 0.7396 |
| 3 | 18.168 | 889.9 | 0.7311 | 22.024 | 750.7 | 0.7345 | 28.513 | 985.0 | 0.7327 |
| 4 | 20.992 | 926.7 | 0.6917 | 25.204 | 770.5 | 0.6995 | 32.042 | 1015.2 | 0.6968 |
| 5 | 22.353 | 940.2 | 0.6398 | 26.785 | 783.1 | 0.6533 | 33.644 | 1017.1 | 0.6499 |
| 6 | 22.994 | 946.1 | 0.5840 | 27.627 | 794.8 | 0.6033 | 34.403 | 1009.8 | 0.5998 |
| 7 | 23.331 | 950.4 | 0.5311 | 28.180 | 807.5 | 0.5554 | 34.867 | 1002.0 | 0.5519 |
| 8 | 23.584 | 955.2 | 0.4842 | 28.664 | 821.3 | 0.5124 | 35.308 | 998.3 | 0.5091 |
| 9 | 24.369 | 968.0 | 0.4431 | 29.761 | 840.4 | 0.4738 | 36.471 | 1004.0 | 0.4709 |
| 10 | 24.354 | 971.6 | 0.4076 | 29.972 | 854.6 | 0.4399 | 36.655 | 1001.7 | 0.4375 |
| 11 | 24.156 | 972.5 | 0.3774 | 29.978 | 867.5 | 0.4106 | 36.605 | 996.8 | 0.4085 |
| 12 | 23.843 | 970.9 | 0.3515 | 29.853 | 879.7 | 0.3852 | 36.398 | 989.8 | 0.3833 |
| 13 | 23.458 | 967.4 | 0.3291 | 29.641 | 891.0 | 0.3628 | 36.091 | 981.7 | 0.3611 |
| 14 | 23.009 | 962.1 | 0.3098 | 29.351 | 901.5 | 0.3431 | 35.694 | 972.6 | 0.3417 |
| 15 | 22.486 | 954.7 | 0.2929 | 28.970 | 911.1 | 0.3258 | 35.194 | 962.7 | 0.3244 |
| 16 | 21.865 | 945.0 | 0.2780 | 28.467 | 919.1 | 0.3103 | 34.561 | 951.9 | 0.3091 |
| 17 | 21.102 | 932.6 | 0.2649 | 27.786 | 924.7 | 0.2967 | 33.747 | 941.1 | 0.2955 |
| 18 | 20.004 | 917.5 | 0.2537 | 26.724 | 927.2 | 0.2849 | 32.576 | 932.3 | 0.2837 |
| 19 | 19.077 | 895.8 | 0.2434 | 25.714 | 921.5 | 0.2737 | 31.460 | 923.8 | 0.2726 |
| 20 | 18.067 | 868.1 | 0.2342 | 24.480 | 906.3 | 0.2634 | 30.075 | 911.9 | 0.2623 |
| 21 | 16.612 | 827.7 | 0.2259 | 22.520 | 873.1 | 0.2537 | 27.732 | 882.3 | 0.2528 |
| 22 | 14.618 | 786.3 | 0.2189 | 19.905 | 834.0 | 0.2460 | 24.557 | 841.0 | 0.2451 |
| 23 | 12.179 | 739.1 | 0.2132 | 16.579 | 781.3 | 0.2393 | 20.385 | 782.3 | 0.2384 |
| 24 | 5.525 | 636.2 | 0.2091 | 7.533 | 655.2 | 0.2348 | 9.317 | 658.2 | 0.2340 |
| 25 | 3.285 | 603.3 | 0.2065 | 4.395 | 612.9 | 0.2307 | 5.400 | 615.5 | 0.2304 |

Table 4-20. LS1 Burnup and TH Feedback Parameters Assembly B7 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|----------------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 7.494 | 680.0 | 0.7396 | 7.981 | 589.9 | 0.7396 | 8.170 | 579.7 | 0.7396 |
| 2 | 25.024 | 971.3 | 0.7396 | 26.404 | 647.3 | 0.7396 | 26.923 | 614.9 | 0.7396 |
| 3 | 32.493 | 986.6 | 0.7317 | 34.126 | 651.1 | 0.7327 | 34.730 | 617.5 | 0.7331 |
| 4 | 36.162 | 1006.4 | 0.6951 | 37.932 | 658.9 | 0.6976 | 38.583 | 621.9 | 0.6985 |
| 5 | 37.763 | 1006.2 | 0.6480 | 39.668 | 666.7 | 0.6522 | 40.373 | 626.9 | 0.6540 |
| 6 | 38.497 | 1002.7 | 0.5979 | 40.552 | 675.5 | 0.6038 | 41.328 | 633.6 | 0.6066 |
| 7 | 38.942 | 1000.0 | 0.5501 | 41.146 | 684.3 | 0.5576 | 42.001 | 641.1 | 0.5614 |
| 8 | 39.377 | 999.1 | 0.5074 | 41.717 | 692.4 | 0.5160 | 42.654 | 648.9 | 0.5207 |
| 9 | 40.583 | 1005.2 | 0.4695 | 43.062 | 700.8 | 0.4785 | 44.087 | 657.5 | 0.4838 |
| 10 | 40.772 | 1005.9 | 0.4362 | 43.339 | 706.2 | 0.4454 | 44.438 | 664.7 | 0.4513 |
| 11 | 40.720 | 1005.7 | 0.4074 | 43.352 | 710.2 | 0.4165 | 44.522 | 671.7 | 0.4227 |
| 12 | 40.512 | 1005.5 | 0.3822 | 43.188 | 712.9 | 0.3911 | 44.425 | 678.4 | 0.3976 |
| 13 | 40.202 | 1005.1 | 0.3601 | 42.904 | 714.5 | 0.3687 | 44.204 | 684.7 | 0.3752 |
| 14 | 39.799 | 1004.2 | 0.3407 | 42.506 | 714.8 | 0.3489 | 43.862 | 690.4 | 0.3554 |
| 15 | 39.286 | 1002.4 | 0.3234 | 41.981 | 714.0 | 0.3313 | 43.385 | 695.3 | 0.3377 |
| 16 | 38.627 | 998.7 | 0.3080 | 41.293 | 712.3 | 0.3157 | 42.733 | 699.0 | 0.3220 |
| 17 | 37.764 | 991.8 | 0.2944 | 40.382 | 709.3 | 0.3017 | 41.847 | 701.6 | 0.3079 |
| 18 | 36.525 | 982.3 | 0.2825 | 39.080 | 705.4 | 0.2896 | 40.559 | 703.1 | 0.2956 |
| 19 | 35.301 | 967.4 | 0.2713 | 37.759 | 699.5 | 0.2781 | 39.229 | 702.1 | 0.2840 |
| 20 | 33.761 | 946.5 | 0.2610 | 36.083 | 691.3 | 0.2676 | 37.516 | 698.3 | 0.2732 |
| 21 | 31.131 | 909.0 | 0.2515 | 33.233 | 678.2 | 0.2578 | 34.567 | 688.2 | 0.2633 |
| 22 | 27.587 | 863.1 | 0.2439 | 29.424 | 662.8 | 0.2499 | 30.627 | 675.0 | 0.2552 |
| 23 | 22.875 | 800.3 | 0.2372 | 24.343 | 641.8 | 0.2431 | 25.324 | 653.2 | 0.2481 |
| 24 | 10.525 | 669.1 | 0.2328 | 11.189 | 598.0 | 0.2385 | 11.637 | 603.2 | 0.2434 |
| 25 | 6.089 | 622.0 | 0.2294 | 6.437 | 581.2 | 0.2346 | 6.671 | 583.9 | 0.2391 |
| | Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 8.386 | 573.6 | 0.7396 | | | | | | |
| 2 | 27.502 | 596.5 | 0.7396 | | | | | | |
| 3 | 35.385 | 598.4 | 0.7336 | | | | | | |
| 4 | 39.269 | 600.1 | 0.6995 | | | | | | |
| 5 | 41.099 | 602.2 | 0.6557 | | | | | | |
| 6 | 42.115 | 605.6 | 0.6093 | | | | | | |
| 7 | 42.871 | 610.2 | 0.5653 | | | | | | |
| 8 | 43.621 | 615.5 | 0.5258 | | | | | | |
| 9 | 45.172 | 622.1 | 0.4901 | | | | | | |
| 10 | 45.640 | 628.7 | 0.4587 | | | | | | |
| 11 | 45.848 | 635.7 | 0.4314 | | | | | | |
| 12 | 45.883 | 643.3 | 0.4073 | | | | | | |
| 13 | 45.800 | 651.3 | 0.3860 | | | | | | |
| 14 | 45.599 | 659.5 | 0.3670 | | | | | | |
| 15 | 45.262 | 667.8 | 0.3500 | | | | | | |
| 16 | 44.749 | 676.2 | 0.3347 | | | | | | |
| 17 | 43.996 | 684.2 | 0.3210 | | | | | | |
| 18 | 42.830 | 691.7 | 0.3090 | | | | | | |
| 19 | 41.583 | 696.8 | 0.2974 | | | | | | |
| 20 | 39.902 | 698.8 | 0.2865 | | | | | | |
| 21 | 36.877 | 694.1 | 0.2765 | | | | | | |
| 22 | 32.775 | 684.1 | 0.2683 | | | | | | |
| 23 | 27.118 | 662.9 | 0.2607 | | | | | | |
| 24 | 12.464 | 607.8 | 0.2557 | | | | | | |
| 25 | 7.097 | 585.9 | 0.2502 | | | | | | |

Table 4-21. LS1 Burnup and TH Feedback Parameters Assembly B8

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.263 | 633.4 | 0.7396 | 2.605 | 659.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.404 | 849.1 | 0.7396 | 9.232 | 985.1 | 0.7396 |
| 3 | 0.000 | | 0.7306 | 6.254 | 934.5 | 0.7321 | 12.999 | 1116.6 | 0.7225 |
| 4 | 0.000 | Data | 0.6668 | 7.602 | 1042.9 | 0.6906 | 15.228 | 1222.4 | 0.6708 |
| 5 | 0.000 | Not | 0.5965 | 8.443 | 1117.2 | 0.6320 | 16.274 | 1248.4 | 0.6050 |
| 6 | 0.000 | Required | 0.5314 | 8.936 | 1163.4 | 0.5673 | 16.728 | 1243.4 | 0.5388 |
| 7 | 0.000 | | 0.4774 | 9.232 | 1192.1 | 0.5067 | 16.945 | 1233.4 | 0.4808 |
| 8 | 0.000 | | 0.4334 | 9.449 | 1213.5 | 0.4547 | 17.097 | 1225.1 | 0.4326 |
| 9 | 0.000 | | 0.3968 | 9.949 | 1264.4 | 0.4106 | 17.690 | 1236.9 | 0.3921 |
| 10 | 0.000 | | 0.3662 | 9.907 | 1260.0 | 0.3733 | 17.614 | 1232.6 | 0.3576 |
| 11 | 0.000 | | 0.3410 | 9.714 | 1240.2 | 0.3424 | 17.395 | 1229.3 | 0.3287 |
| 12 | 0.000 | | 0.3200 | 9.428 | 1211.4 | 0.3167 | 17.080 | 1225.7 | 0.3044 |
| 13 | 0.000 | | 0.3024 | 9.088 | 1178.0 | 0.2953 | 16.700 | 1220.6 | 0.2837 |
| 14 | 0.000 | | 0.2876 | 8.716 | 1142.6 | 0.2772 | 16.266 | 1212.9 | 0.2660 |
| 15 | 0.000 | | 0.2750 | 8.325 | 1106.5 | 0.2618 | 15.776 | 1200.6 | 0.2507 |
| 16 | 0.000 | | 0.2643 | 7.914 | 1069.8 | 0.2486 | 15.218 | 1182.6 | 0.2374 |
| 17 | 0.000 | | 0.2552 | 7.459 | 1030.8 | 0.2373 | 14.549 | 1156.9 | 0.2258 |
| 18 | 0.000 | | 0.2477 | 6.808 | 977.5 | 0.2275 | 13.566 | 1118.1 | 0.2155 |
| 19 | 0.000 | | 0.2415 | 6.399 | 945.6 | 0.2192 | 12.821 | 1080.2 | 0.2068 |
| 20 | 0.000 | | 0.2356 | 6.040 | 918.5 | 0.2117 | 12.090 | 1039.9 | 0.1991 |
| 21 | 0.000 | | 0.2306 | 5.626 | 888.2 | 0.2050 | 11.179 | 988.5 | 0.1923 |
| 22 | 0.000 | | 0.2264 | 4.981 | 843.3 | 0.1993 | 9.851 | 922.3 | 0.1866 |
| 23 | 0.000 | | 0.2230 | 4.246 | 794.9 | 0.1946 | 8.296 | 849.0 | 0.1820 |
| 24 | 0.000 | | 0.2207 | 1.949 | 661.0 | 0.1911 | 3.823 | 682.3 | 0.1786 |
| 25 | 0.000 | | 0.2196 | 1.215 | 622.9 | 0.1896 | 2.352 | 633.4 | 0.1773 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.710 | 668.7 | 0.7396 | 6.411 | 651.5 | 0.7396 | 8.014 | 660.7 | 0.7396 |
| 2 | 16.502 | 1011.5 | 0.7396 | 21.875 | 890.2 | 0.7396 | 26.603 | 898.9 | 0.7396 |
| 3 | 22.203 | 1078.8 | 0.7195 | 28.836 | 921.2 | 0.7219 | 34.618 | 926.7 | 0.7237 |
| 4 | 25.157 | 1136.1 | 0.6662 | 32.318 | 958.0 | 0.6719 | 38.579 | 965.8 | 0.6763 |
| 5 | 26.327 | 1146.2 | 0.6004 | 33.759 | 977.6 | 0.6101 | 40.244 | 984.6 | 0.6174 |
| 6 | 26.697 | 1139.4 | 0.5356 | 34.330 | 992.3 | 0.5487 | 40.915 | 993.2 | 0.5581 |
| 7 | 26.820 | 1131.7 | 0.4793 | 34.645 | 1006.6 | 0.4947 | 41.269 | 996.6 | 0.5050 |
| 8 | 26.924 | 1127.9 | 0.4327 | 34.936 | 1020.8 | 0.4492 | 41.599 | 999.9 | 0.4597 |
| 9 | 27.642 | 1138.0 | 0.3937 | 35.929 | 1042.0 | 0.4104 | 42.701 | 1009.4 | 0.4207 |
| 10 | 27.529 | 1135.0 | 0.3603 | 35.985 | 1055.3 | 0.3772 | 42.742 | 1008.1 | 0.3873 |
| 11 | 27.231 | 1128.6 | 0.3322 | 35.843 | 1067.7 | 0.3490 | 42.530 | 1002.0 | 0.3588 |
| 12 | 26.811 | 1120.1 | 0.3084 | 35.571 | 1079.6 | 0.3248 | 42.155 | 993.1 | 0.3343 |
| 13 | 26.308 | 1110.3 | 0.2881 | 35.209 | 1091.1 | 0.3040 | 41.666 | 982.3 | 0.3132 |
| 14 | 25.735 | 1099.4 | 0.2705 | 34.764 | 1101.6 | 0.2858 | 41.079 | 970.3 | 0.2948 |
| 15 | 25.090 | 1087.3 | 0.2552 | 34.226 | 1110.5 | 0.2698 | 40.383 | 957.1 | 0.2785 |
| 16 | 24.356 | 1073.7 | 0.2418 | 33.576 | 1117.6 | 0.2557 | 39.547 | 941.9 | 0.2642 |
| 17 | 23.486 | 1058.4 | 0.2301 | 32.742 | 1120.6 | 0.2432 | 38.489 | 923.9 | 0.2514 |
| 18 | 22.278 | 1041.6 | 0.2197 | 31.526 | 1119.9 | 0.2321 | 37.018 | 903.8 | 0.2402 |
| 19 | 21.197 | 1017.0 | 0.2107 | 30.308 | 1108.4 | 0.2221 | 35.535 | 883.5 | 0.2301 |
| 20 | 19.989 | 983.2 | 0.2027 | 28.795 | 1083.3 | 0.2132 | 33.746 | 862.8 | 0.2211 |
| 21 | 18.284 | 929.5 | 0.1956 | 26.409 | 1029.4 | 0.2053 | 30.938 | 832.2 | 0.2131 |
| 22 | 16.055 | 872.4 | 0.1897 | 23.309 | 964.7 | 0.1986 | 27.297 | 794.6 | 0.2064 |
| 23 | 13.409 | 808.2 | 0.1849 | 19.459 | 882.3 | 0.1931 | 22.682 | 744.4 | 0.2006 |
| 24 | 6.184 | 666.7 | 0.1816 | 9.102 | 700.6 | 0.1896 | 10.656 | 645.4 | 0.1974 |
| 25 | 3.734 | 622.3 | 0.1802 | 5.439 | 640.6 | 0.1878 | 6.308 | 608.2 | 0.1951 |

Table 4-21. LS1 Burnup and TH Feedback Parameters Assembly B8 (Continued)

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|----------------------------------------|-------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 8.991 | 660.3 | 0.7396 | 9.180 | 571.7 | 0.7396 | 9.257 | 568.2 | 0.7396 |
| 2 | 29.343 | 877.6 | 0.7396 | 29.842 | 590.7 | 0.7396 | 30.043 | 581.0 | 0.7396 |
| 3 | 37.903 | 894.5 | 0.7247 | 38.475 | 593.1 | 0.7252 | 38.703 | 583.3 | 0.7254 |
| 4 | 42.077 | 921.7 | 0.6788 | 42.696 | 595.6 | 0.6799 | 42.940 | 584.8 | 0.6803 |
| 5 | 43.825 | 932.6 | 0.6216 | 44.499 | 598.5 | 0.6236 | 44.761 | 586.4 | 0.6244 |
| 6 | 44.519 | 935.6 | 0.5636 | 45.266 | 602.4 | 0.5668 | 45.554 | 588.7 | 0.5679 |
| 7 | 44.878 | 936.2 | 0.5112 | 45.714 | 607.2 | 0.5157 | 46.033 | 591.5 | 0.5174 |
| 8 | 45.215 | 937.2 | 0.4663 | 46.153 | 612.7 | 0.4721 | 46.507 | 594.7 | 0.4743 |
| 9 | 46.363 | 943.3 | 0.4274 | 47.421 | 619.2 | 0.4345 | 47.813 | 598.1 | 0.4371 |
| 10 | 46.416 | 944.9 | 0.3940 | 47.587 | 625.3 | 0.4026 | 48.018 | 601.7 | 0.4057 |
| 11 | 46.201 | 944.5 | 0.3654 | 47.480 | 631.3 | 0.3754 | 47.952 | 605.4 | 0.3791 |
| 12 | 45.819 | 943.5 | 0.3409 | 47.197 | 636.8 | 0.3521 | 47.713 | 609.4 | 0.3563 |
| 13 | 45.323 | 942.6 | 0.3196 | 46.789 | 641.7 | 0.3317 | 47.351 | 613.6 | 0.3366 |
| 14 | 44.727 | 941.4 | 0.3011 | 46.267 | 645.9 | 0.3137 | 46.877 | 618.1 | 0.3192 |
| 15 | 44.019 | 939.8 | 0.2847 | 45.619 | 649.3 | 0.2977 | 46.277 | 622.5 | 0.3039 |
| 16 | 43.164 | 937.3 | 0.2702 | 44.809 | 651.8 | 0.2834 | 45.515 | 627.0 | 0.2901 |
| 17 | 42.071 | 932.7 | 0.2574 | 43.747 | 653.6 | 0.2707 | 44.500 | 631.4 | 0.2779 |
| 18 | 40.547 | 925.8 | 0.2461 | 42.239 | 654.5 | 0.2595 | 43.036 | 635.6 | 0.2672 |
| 19 | 38.974 | 914.1 | 0.2358 | 40.654 | 653.8 | 0.2492 | 41.484 | 638.7 | 0.2572 |
| 20 | 37.048 | 896.7 | 0.2267 | 38.683 | 651.2 | 0.2398 | 39.527 | 640.0 | 0.2481 |
| 21 | 33.981 | 864.7 | 0.2185 | 35.501 | 644.7 | 0.2315 | 36.322 | 637.8 | 0.2399 |
| 22 | 29.996 | 824.0 | 0.2117 | 31.357 | 635.8 | 0.2245 | 32.123 | 632.6 | 0.2330 |
| 23 | 24.873 | 767.6 | 0.2058 | 25.969 | 621.2 | 0.2178 | 26.606 | 620.6 | 0.2262 |
| 24 | 11.724 | 656.1 | 0.2027 | 12.210 | 588.5 | 0.2138 | 12.496 | 588.6 | 0.2216 |
| 25 | 6.906 | 614.0 | 0.2001 | 7.150 | 575.7 | 0.2096 | 7.292 | 575.6 | 0.2163 |
| Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | | |
| Node No. | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.357 | 566.4 | 0.7396 | | | | | | |
| 2 | 30.298 | 576.1 | 0.7396 | | | | | | |
| 3 | 38.986 | 578.2 | 0.7256 | | | | | | |
| 4 | 43.234 | 578.8 | 0.6809 | | | | | | |
| 5 | 45.071 | 579.6 | 0.6253 | | | | | | |
| 6 | 45.890 | 581.0 | 0.5693 | | | | | | |
| 7 | 46.404 | 582.9 | 0.5193 | | | | | | |
| 8 | 46.919 | 585.2 | 0.4767 | | | | | | |
| 9 | 48.277 | 588.0 | 0.4402 | | | | | | |
| 10 | 48.535 | 590.8 | 0.4094 | | | | | | |
| 11 | 48.528 | 594.1 | 0.3836 | | | | | | |
| 12 | 48.356 | 597.7 | 0.3616 | | | | | | |
| 13 | 48.069 | 601.8 | 0.3428 | | | | | | |
| 14 | 47.680 | 606.5 | 0.3265 | | | | | | |
| 15 | 47.173 | 611.6 | 0.3123 | | | | | | |
| 16 | 46.512 | 617.2 | 0.2998 | | | | | | |
| 17 | 45.603 | 623.1 | 0.2889 | | | | | | |
| 18 | 44.248 | 629.3 | 0.2796 | | | | | | |
| 19 | 42.787 | 634.4 | 0.2707 | | | | | | |
| 20 | 40.893 | 638.0 | 0.2626 | | | | | | |
| 21 | 37.685 | 637.9 | 0.2550 | | | | | | |
| 22 | 33.427 | 634.5 | 0.2487 | | | | | | |
| 23 | 27.710 | 623.2 | 0.2418 | | | | | | |
| 24 | 12.994 | 589.8 | 0.2363 | | | | | | |
| 25 | 7.540 | 576.2 | 0.2288 | | | | | | |

Table 4-22. LS1 Burnup and TH Feedback Parameters Assembly B9

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.186 | 628.8 | 0.7396 | 2.541 | 660.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.150 | 829.6 | 0.7396 | 9.026 | 990.4 | 0.7396 |
| 3 | 0.000 | | 0.7276 | 5.895 | 907.8 | 0.7350 | 12.715 | 1125.2 | 0.7233 |
| 4 | 0.000 | Data | 0.6616 | 7.156 | 1005.6 | 0.6977 | 14.846 | 1230.4 | 0.6732 |
| 5 | 0.000 | Not | 0.5908 | 7.943 | 1072.4 | 0.6442 | 15.790 | 1250.5 | 0.6101 |
| 6 | 0.000 | Required | 0.5269 | 8.414 | 1114.6 | 0.5834 | 16.162 | 1237.8 | 0.5467 |
| 7 | 0.000 | | 0.4744 | 8.702 | 1141.3 | 0.5246 | 16.318 | 1221.1 | 0.4904 |
| 8 | 0.000 | | 0.4318 | 8.919 | 1161.8 | 0.4729 | 16.424 | 1207.3 | 0.4428 |
| 9 | 0.000 | | 0.3964 | 9.410 | 1209.6 | 0.4283 | 16.979 | 1215.2 | 0.4027 |
| 10 | 0.000 | | 0.3665 | 9.390 | 1207.6 | 0.3902 | 16.896 | 1207.4 | 0.3681 |
| 11 | 0.000 | | 0.3419 | 9.235 | 1192.4 | 0.3587 | 16.694 | 1201.6 | 0.3391 |
| 12 | 0.000 | | 0.3213 | 9.005 | 1170.0 | 0.3322 | 16.420 | 1196.2 | 0.3144 |
| 13 | 0.000 | | 0.3040 | 8.732 | 1144.1 | 0.3099 | 16.098 | 1190.1 | 0.2934 |
| 14 | 0.000 | | 0.2893 | 8.435 | 1116.5 | 0.2910 | 15.728 | 1181.2 | 0.2753 |
| 15 | 0.000 | | 0.2768 | 8.126 | 1088.6 | 0.2749 | 15.303 | 1167.2 | 0.2596 |
| 16 | 0.000 | | 0.2662 | 7.808 | 1060.6 | 0.2609 | 14.811 | 1146.6 | 0.2460 |
| 17 | 0.000 | | 0.2572 | 7.454 | 1030.3 | 0.2488 | 14.211 | 1117.9 | 0.2342 |
| 18 | 0.000 | | 0.2497 | 6.891 | 984.1 | 0.2384 | 13.298 | 1078.5 | 0.2237 |
| 19 | 0.000 | | 0.2434 | 6.546 | 956.9 | 0.2292 | 12.615 | 1041.9 | 0.2148 |
| 20 | 0.000 | | 0.2377 | 6.221 | 932.0 | 0.2210 | 11.940 | 1005.3 | 0.2068 |
| 21 | 0.000 | | 0.2327 | 5.819 | 902.2 | 0.2137 | 11.091 | 960.6 | 0.1998 |
| 22 | 0.000 | | 0.2284 | 5.169 | 856.1 | 0.2074 | 9.828 | 902.8 | 0.1937 |
| 23 | 0.000 | | 0.2249 | 4.417 | 805.9 | 0.2022 | 8.326 | 837.0 | 0.1888 |
| 24 | 0.000 | | 0.2226 | 2.034 | 665.5 | 0.1984 | 3.856 | 678.8 | 0.1852 |
| 25 | 0.000 | | 0.2214 | 1.265 | 625.4 | 0.1968 | 2.370 | 631.4 | 0.1839 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 4.409 | 655.8 | 0.7396 | 6.272 | 660.8 | 0.7396 | 8.044 | 672.0 | 0.7396 |
| 2 | 15.604 | 957.9 | 0.7396 | 21.508 | 930.5 | 0.7396 | 26.691 | 939.3 | 0.7396 |
| 3 | 21.176 | 1023.2 | 0.7231 | 28.391 | 961.9 | 0.7233 | 34.675 | 967.7 | 0.7241 |
| 4 | 24.112 | 1083.6 | 0.6738 | 31.804 | 996.7 | 0.6752 | 38.532 | 1005.6 | 0.6775 |
| 5 | 25.294 | 1102.1 | 0.6118 | 33.183 | 1011.4 | 0.6154 | 40.060 | 1018.7 | 0.6194 |
| 6 | 25.669 | 1102.4 | 0.5493 | 33.696 | 1021.9 | 0.5553 | 40.594 | 1020.5 | 0.5607 |
| 7 | 25.776 | 1098.5 | 0.4939 | 33.948 | 1033.1 | 0.5017 | 40.827 | 1018.8 | 0.5077 |
| 8 | 25.872 | 1097.7 | 0.4472 | 34.198 | 1045.0 | 0.4563 | 41.075 | 1018.7 | 0.4626 |
| 9 | 26.564 | 1108.5 | 0.4077 | 35.138 | 1064.6 | 0.4174 | 42.094 | 1025.7 | 0.4238 |
| 10 | 26.446 | 1105.7 | 0.3739 | 35.167 | 1076.5 | 0.3840 | 42.098 | 1023.5 | 0.3904 |
| 11 | 26.154 | 1098.7 | 0.3452 | 35.015 | 1087.8 | 0.3554 | 41.890 | 1018.5 | 0.3620 |
| 12 | 25.754 | 1088.8 | 0.3208 | 34.750 | 1098.9 | 0.3310 | 41.545 | 1011.4 | 0.3374 |
| 13 | 25.281 | 1077.2 | 0.3000 | 34.406 | 1109.6 | 0.3098 | 41.106 | 1003.2 | 0.3161 |
| 14 | 24.744 | 1064.4 | 0.2819 | 33.986 | 1119.4 | 0.2913 | 40.574 | 993.5 | 0.2976 |
| 15 | 24.134 | 1050.5 | 0.2662 | 33.475 | 1127.8 | 0.2751 | 39.931 | 982.2 | 0.2812 |
| 16 | 23.434 | 1035.0 | 0.2525 | 32.849 | 1134.1 | 0.2607 | 39.142 | 968.4 | 0.2667 |
| 17 | 22.594 | 1017.5 | 0.2406 | 32.035 | 1136.3 | 0.2480 | 38.128 | 951.8 | 0.2539 |
| 18 | 21.402 | 997.6 | 0.2300 | 30.810 | 1133.5 | 0.2367 | 36.681 | 933.8 | 0.2425 |
| 19 | 20.329 | 970.4 | 0.2207 | 29.548 | 1117.5 | 0.2266 | 35.192 | 915.7 | 0.2324 |
| 20 | 19.142 | 935.9 | 0.2124 | 27.975 | 1085.5 | 0.2176 | 33.381 | 897.2 | 0.2233 |
| 21 | 17.512 | 885.8 | 0.2052 | 25.576 | 1024.8 | 0.2095 | 30.570 | 866.0 | 0.2154 |
| 22 | 15.388 | 833.9 | 0.1990 | 22.512 | 955.4 | 0.2028 | 26.949 | 825.7 | 0.2086 |
| 23 | 12.860 | 776.1 | 0.1939 | 18.747 | 871.7 | 0.1972 | 22.368 | 770.1 | 0.2029 |
| 24 | 5.913 | 652.6 | 0.1904 | 8.716 | 694.7 | 0.1937 | 10.479 | 657.1 | 0.1995 |
| 25 | 3.559 | 613.8 | 0.1886 | 5.191 | 637.2 | 0.1918 | 6.189 | 615.1 | 0.1974 |

Table 4-22. LS1 Burnup and TH Feedback Parameters Assembly B9 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|---------------------------------|-------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 9.138 | 673.2 | 0.7396 | 9.366 | 574.0 | 0.7396 | 9.459 | 569.8 | 0.7396 |
| 2 | 29.724 | 919.3 | 0.7396 | 30.322 | 596.8 | 0.7396 | 30.559 | 584.7 | 0.7396 |
| 3 | 38.279 | 935.6 | 0.7247 | 38.965 | 599.1 | 0.7253 | 39.234 | 587.0 | 0.7255 |
| 4 | 42.353 | 964.7 | 0.6790 | 43.096 | 602.2 | 0.6803 | 43.385 | 588.8 | 0.6808 |
| 5 | 43.974 | 977.4 | 0.6221 | 44.783 | 605.7 | 0.6245 | 45.097 | 591.1 | 0.6254 |
| 6 | 44.555 | 984.0 | 0.5643 | 45.450 | 610.3 | 0.5679 | 45.798 | 594.1 | 0.5694 |
| 7 | 44.820 | 988.4 | 0.5118 | 45.814 | 615.7 | 0.5170 | 46.202 | 597.8 | 0.5190 |
| 8 | 45.094 | 992.1 | 0.4668 | 46.194 | 621.5 | 0.4736 | 46.626 | 601.8 | 0.4761 |
| 9 | 46.174 | 1000.7 | 0.4281 | 47.392 | 627.9 | 0.4362 | 47.873 | 606.2 | 0.4394 |
| 10 | 46.189 | 1002.2 | 0.3947 | 47.509 | 633.6 | 0.4042 | 48.039 | 610.7 | 0.4080 |
| 11 | 45.982 | 1002.4 | 0.3662 | 47.395 | 638.7 | 0.3767 | 47.976 | 615.4 | 0.3812 |
| 12 | 45.635 | 1002.1 | 0.3416 | 47.131 | 643.4 | 0.3530 | 47.764 | 620.2 | 0.3582 |
| 13 | 45.190 | 1001.2 | 0.3203 | 46.757 | 647.4 | 0.3322 | 47.443 | 625.1 | 0.3381 |
| 14 | 44.649 | 1000.0 | 0.3016 | 46.273 | 650.6 | 0.3139 | 47.012 | 630.1 | 0.3203 |
| 15 | 43.990 | 997.7 | 0.2851 | 45.656 | 653.0 | 0.2976 | 46.445 | 634.8 | 0.3045 |
| 16 | 43.174 | 993.9 | 0.2705 | 44.868 | 654.6 | 0.2831 | 45.704 | 639.3 | 0.2903 |
| 17 | 42.111 | 987.0 | 0.2576 | 43.820 | 655.5 | 0.2701 | 44.699 | 643.4 | 0.2776 |
| 18 | 40.600 | 978.1 | 0.2461 | 42.311 | 655.6 | 0.2586 | 43.227 | 646.9 | 0.2665 |
| 19 | 39.014 | 964.8 | 0.2358 | 40.700 | 654.1 | 0.2483 | 41.637 | 648.9 | 0.2563 |
| 20 | 37.062 | 945.8 | 0.2267 | 38.693 | 651.0 | 0.2389 | 39.630 | 648.9 | 0.2470 |
| 21 | 33.974 | 909.6 | 0.2186 | 35.483 | 644.1 | 0.2306 | 36.380 | 645.1 | 0.2387 |
| 22 | 29.982 | 863.4 | 0.2117 | 31.327 | 635.0 | 0.2235 | 32.153 | 638.3 | 0.2316 |
| 23 | 24.848 | 799.2 | 0.2060 | 25.927 | 620.3 | 0.2171 | 26.607 | 624.6 | 0.2250 |
| 24 | 11.708 | 671.1 | 0.2026 | 12.185 | 588.0 | 0.2129 | 12.489 | 590.2 | 0.2203 |
| 25 | 6.890 | 623.1 | 0.2003 | 7.128 | 575.4 | 0.2091 | 7.279 | 576.4 | 0.2155 |
| Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.565 | 566.8 | 0.7396 | | | | | | |
| 2 | 30.828 | 576.9 | 0.7396 | | | | | | |
| 3 | 39.532 | 579.0 | 0.7257 | | | | | | |
| 4 | 43.696 | 579.7 | 0.6814 | | | | | | |
| 5 | 45.428 | 580.8 | 0.6263 | | | | | | |
| 6 | 46.160 | 582.4 | 0.5708 | | | | | | |
| 7 | 46.605 | 584.7 | 0.5210 | | | | | | |
| 8 | 47.077 | 587.3 | 0.4788 | | | | | | |
| 9 | 48.385 | 590.6 | 0.4427 | | | | | | |
| 10 | 48.612 | 593.9 | 0.4121 | | | | | | |
| 11 | 48.617 | 597.6 | 0.3862 | | | | | | |
| 12 | 48.482 | 601.8 | 0.3640 | | | | | | |
| 13 | 48.246 | 606.5 | 0.3449 | | | | | | |
| 14 | 47.907 | 611.5 | 0.3283 | | | | | | |
| 15 | 47.440 | 617.1 | 0.3137 | | | | | | |
| 16 | 46.806 | 623.1 | 0.3007 | | | | | | |
| 17 | 45.910 | 629.2 | 0.2893 | | | | | | |
| 18 | 44.549 | 635.5 | 0.2795 | | | | | | |
| 19 | 43.054 | 640.9 | 0.2704 | | | | | | |
| 20 | 41.109 | 644.5 | 0.2619 | | | | | | |
| 21 | 37.850 | 644.0 | 0.2541 | | | | | | |
| 22 | 33.556 | 640.1 | 0.2477 | | | | | | |
| 23 | 27.791 | 627.7 | 0.2408 | | | | | | |
| 24 | 13.023 | 591.8 | 0.2351 | | | | | | |
| 25 | 7.543 | 577.1 | 0.2281 | | | | | | |

Table 4-23. LS1 Burnup and TH Feedback Parameters Assembly B10

| Node | Datapoint 1 (BOC Cy 4) | | | Datapoint 2 (208.6 EFPD Cy 4) | | | Datapoint 3 (BOC Cy 5) | | |
|------|-------------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 4 | 0.00 Cy 4 | 0.00 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 208.6 Cy 4 | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 |
| 1 | 0.000 | | 0.7396 | 1.354 | 639.0 | 0.7396 | 2.676 | 657.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.725 | 874.4 | 0.7396 | 9.500 | 979.2 | 0.7396 |
| 3 | 0.000 | | 0.7284 | 6.700 | 969.0 | 0.7288 | 13.331 | 1103.6 | 0.7219 |
| 4 | 0.000 | Data | 0.6623 | 8.068 | 1083.4 | 0.6829 | 15.530 | 1201.9 | 0.6687 |
| 5 | 0.000 | Not | 0.5903 | 8.835 | 1153.8 | 0.6201 | 16.496 | 1226.8 | 0.6013 |
| 6 | 0.000 | Required | 0.5252 | 9.217 | 1190.6 | 0.5534 | 16.856 | 1224.0 | 0.5342 |
| 7 | 0.000 | | 0.4718 | 9.408 | 1209.4 | 0.4932 | 16.988 | 1216.6 | 0.4762 |
| 8 | 0.000 | | 0.4286 | 9.541 | 1222.7 | 0.4428 | 17.070 | 1210.3 | 0.4285 |
| 9 | 0.000 | | 0.3929 | 9.975 | 1267.1 | 0.4004 | 17.606 | 1223.0 | 0.3887 |
| 10 | 0.000 | | 0.3631 | 9.890 | 1258.3 | 0.3646 | 17.492 | 1219.4 | 0.3549 |
| 11 | 0.000 | | 0.3385 | 9.669 | 1235.7 | 0.3349 | 17.246 | 1216.2 | 0.3267 |
| 12 | 0.000 | | 0.3180 | 9.364 | 1205.1 | 0.3103 | 16.909 | 1212.2 | 0.3030 |
| 13 | 0.000 | | 0.3009 | 9.007 | 1170.2 | 0.2897 | 16.506 | 1206.5 | 0.2828 |
| 14 | 0.000 | | 0.2864 | 8.617 | 1133.3 | 0.2723 | 16.048 | 1198.1 | 0.2654 |
| 15 | 0.000 | | 0.2740 | 8.205 | 1095.6 | 0.2575 | 15.537 | 1186.0 | 0.2505 |
| 16 | 0.000 | | 0.2635 | 7.772 | 1057.5 | 0.2448 | 14.962 | 1168.8 | 0.2375 |
| 17 | 0.000 | | 0.2545 | 7.294 | 1017.0 | 0.2339 | 14.284 | 1145.0 | 0.2260 |
| 18 | 0.000 | | 0.2470 | 6.631 | 963.6 | 0.2246 | 13.303 | 1108.2 | 0.2159 |
| 19 | 0.000 | | 0.2408 | 6.214 | 931.5 | 0.2166 | 12.567 | 1072.6 | 0.2073 |
| 20 | 0.000 | | 0.2349 | 5.854 | 904.8 | 0.2095 | 11.845 | 1033.6 | 0.1996 |
| 21 | 0.000 | | 0.2300 | 5.443 | 875.2 | 0.2030 | 10.946 | 983.4 | 0.1929 |
| 22 | 0.000 | | 0.2259 | 4.813 | 831.9 | 0.1975 | 9.629 | 917.2 | 0.1872 |
| 23 | 0.000 | | 0.2225 | 4.096 | 785.4 | 0.1930 | 8.093 | 844.5 | 0.1826 |
| 24 | 0.000 | | 0.2203 | 1.874 | 657.0 | 0.1896 | 3.722 | 680.5 | 0.1793 |
| 25 | 0.000 | | 0.2191 | 1.167 | 620.4 | 0.1883 | 2.283 | 632.1 | 0.1780 |
| Node | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 |
| 1 | 3.970 | 625.2 | 0.7396 | 4.821 | 604.6 | 0.7396 | 5.812 | 620.8 | 0.7396 |
| 2 | 14.101 | 818.8 | 0.7396 | 16.927 | 718.0 | 0.7396 | 20.126 | 774.4 | 0.7396 |
| 3 | 19.222 | 853.5 | 0.7276 | 22.724 | 731.4 | 0.7314 | 26.747 | 797.0 | 0.7337 |
| 4 | 22.000 | 888.9 | 0.6824 | 25.821 | 748.7 | 0.6916 | 30.226 | 823.4 | 0.6972 |
| 5 | 23.234 | 905.8 | 0.6244 | 27.271 | 760.7 | 0.6403 | 31.927 | 841.3 | 0.6499 |
| 6 | 23.753 | 916.0 | 0.5654 | 28.001 | 772.6 | 0.5877 | 33.003 | 866.6 | 0.6010 |
| 7 | 24.003 | 923.6 | 0.5125 | 28.474 | 785.4 | 0.5403 | 33.606 | 876.3 | 0.5553 |
| 8 | 24.187 | 930.3 | 0.4670 | 28.892 | 799.0 | 0.4989 | 34.060 | 879.0 | 0.5145 |
| 9 | 24.918 | 943.2 | 0.4274 | 29.928 | 817.1 | 0.4621 | 35.164 | 884.2 | 0.4774 |
| 10 | 24.865 | 947.3 | 0.3936 | 30.100 | 830.8 | 0.4301 | 35.320 | 883.0 | 0.4451 |
| 11 | 24.641 | 948.7 | 0.3649 | 30.081 | 843.4 | 0.4025 | 35.264 | 880.2 | 0.4170 |
| 12 | 24.294 | 948.1 | 0.3403 | 29.922 | 855.2 | 0.3785 | 35.051 | 876.1 | 0.3925 |
| 13 | 23.852 | 945.5 | 0.3193 | 29.656 | 866.4 | 0.3575 | 34.719 | 871.1 | 0.3709 |
| 14 | 23.328 | 941.1 | 0.3010 | 29.293 | 876.8 | 0.3391 | 34.274 | 865.0 | 0.3518 |
| 15 | 22.720 | 934.6 | 0.2851 | 28.828 | 886.1 | 0.3227 | 33.710 | 857.7 | 0.3350 |
| 16 | 22.013 | 926.0 | 0.2711 | 28.242 | 894.0 | 0.3083 | 32.998 | 848.5 | 0.3201 |
| 17 | 21.158 | 914.5 | 0.2588 | 27.474 | 899.8 | 0.2955 | 32.073 | 837.2 | 0.3069 |
| 18 | 19.954 | 900.3 | 0.2485 | 26.319 | 903.1 | 0.2848 | 30.756 | 825.7 | 0.2957 |
| 19 | 18.895 | 880.0 | 0.2388 | 25.199 | 899.0 | 0.2743 | 29.511 | 816.9 | 0.2851 |
| 20 | 17.751 | 854.4 | 0.2299 | 23.867 | 886.6 | 0.2645 | 28.242 | 821.3 | 0.2757 |
| 21 | 16.215 | 817.1 | 0.2217 | 21.877 | 857.4 | 0.2551 | 26.119 | 812.0 | 0.2666 |
| 22 | 14.201 | 778.2 | 0.2152 | 19.298 | 822.4 | 0.2478 | 23.123 | 783.6 | 0.2590 |
| 23 | 11.808 | 733.0 | 0.2095 | 16.063 | 773.0 | 0.2410 | 19.211 | 739.6 | 0.2519 |
| 24 | 5.353 | 633.3 | 0.2051 | 7.280 | 651.3 | 0.2363 | 8.741 | 640.2 | 0.2472 |
| 25 | 3.188 | 601.5 | 0.2020 | 4.242 | 610.3 | 0.2311 | 5.150 | 610.3 | 0.2435 |

Table 4-23. LS1 Burnup and TH Feedback Parameters Assembly B10 (Continued)

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|----------------------------------------|-------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 6.617 | 641.8 | 0.7396 | 7.711 | 628.5 | 0.7396 | 8.455 | 639.7 | 0.7396 |
| 2 | 22.566 | 836.7 | 0.7396 | 25.769 | 778.4 | 0.7396 | 27.907 | 812.8 | 0.7396 |
| 3 | 29.697 | 853.5 | 0.7338 | 33.712 | 800.5 | 0.7352 | 36.425 | 843.4 | 0.7355 |
| 4 | 33.357 | 875.4 | 0.6981 | 37.890 | 837.3 | 0.7016 | 40.975 | 891.1 | 0.7025 |
| 5 | 35.202 | 893.3 | 0.6519 | 40.117 | 865.6 | 0.6579 | 43.443 | 923.6 | 0.6594 |
| 6 | 36.629 | 938.5 | 0.6042 | 41.797 | 884.9 | 0.6121 | 45.232 | 938.7 | 0.6140 |
| 7 | 37.356 | 955.1 | 0.5587 | 42.793 | 905.9 | 0.5678 | 46.317 | 951.2 | 0.5698 |
| 8 | 37.834 | 958.3 | 0.5176 | 43.549 | 928.1 | 0.5271 | 47.166 | 964.5 | 0.5290 |
| 9 | 38.984 | 964.5 | 0.4804 | 45.001 | 953.0 | 0.4894 | 48.746 | 983.1 | 0.4911 |
| 10 | 39.140 | 964.5 | 0.4478 | 45.302 | 965.2 | 0.4563 | 49.126 | 994.8 | 0.4575 |
| 11 | 39.081 | 964.1 | 0.4195 | 45.270 | 967.5 | 0.4270 | 49.150 | 1003.2 | 0.4279 |
| 12 | 38.871 | 964.5 | 0.3947 | 45.005 | 962.8 | 0.4014 | 48.915 | 1007.7 | 0.4020 |
| 13 | 38.556 | 966.9 | 0.3729 | 44.576 | 953.3 | 0.3789 | 48.495 | 1009.1 | 0.3793 |
| 14 | 38.112 | 967.0 | 0.3537 | 43.976 | 940.3 | 0.3590 | 47.869 | 1005.1 | 0.3592 |
| 15 | 37.538 | 965.6 | 0.3366 | 43.199 | 923.8 | 0.3414 | 47.019 | 994.2 | 0.3414 |
| 16 | 36.805 | 962.8 | 0.3214 | 42.207 | 903.1 | 0.3258 | 45.901 | 975.7 | 0.3256 |
| 17 | 35.842 | 957.6 | 0.3078 | 40.917 | 877.7 | 0.3118 | 44.428 | 949.4 | 0.3116 |
| 18 | 34.474 | 950.7 | 0.2963 | 39.179 | 849.9 | 0.3000 | 42.467 | 918.4 | 0.2996 |
| 19 | 33.136 | 938.4 | 0.2854 | 37.475 | 823.3 | 0.2889 | 40.529 | 887.1 | 0.2885 |
| 20 | 31.705 | 917.2 | 0.2758 | 35.683 | 798.0 | 0.2791 | 38.492 | 855.4 | 0.2787 |
| 21 | 29.295 | 880.9 | 0.2666 | 32.843 | 768.8 | 0.2699 | 35.355 | 818.7 | 0.2696 |
| 22 | 25.944 | 838.2 | 0.2588 | 29.020 | 738.0 | 0.2621 | 31.203 | 779.9 | 0.2619 |
| 23 | 21.524 | 780.8 | 0.2517 | 23.994 | 700.3 | 0.2550 | 25.760 | 733.5 | 0.2549 |
| 24 | 9.854 | 660.3 | 0.2469 | 11.051 | 626.8 | 0.2505 | 11.930 | 643.4 | 0.2505 |
| 25 | 5.813 | 619.7 | 0.2439 | 6.482 | 598.2 | 0.2474 | 6.985 | 608.2 | 0.2474 |
| Statepoint 10 (495.2, EOC Cy 7) | | | | | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | | | | | | |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | | | | |
| | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | | | | | | |
| 1 | 9.961 | 658.3 | 0.7396 | | | | | | |
| 2 | 31.931 | 852.9 | 0.7396 | | | | | | |
| 3 | 41.129 | 858.6 | 0.7357 | | | | | | |
| 4 | 45.861 | 872.7 | 0.7033 | | | | | | |
| 5 | 48.312 | 871.3 | 0.6612 | | | | | | |
| 6 | 50.035 | 866.2 | 0.6166 | | | | | | |
| 7 | 51.129 | 866.9 | 0.5732 | | | | | | |
| 8 | 52.058 | 873.1 | 0.5330 | | | | | | |
| 9 | 53.801 | 885.9 | 0.4956 | | | | | | |
| 10 | 54.348 | 899.2 | 0.4623 | | | | | | |
| 11 | 54.562 | 914.7 | 0.4330 | | | | | | |
| 12 | 54.531 | 931.5 | 0.4071 | | | | | | |
| 13 | 54.326 | 949.7 | 0.3843 | | | | | | |
| 14 | 53.929 | 969.4 | 0.3639 | | | | | | |
| 15 | 53.312 | 990.0 | 0.3458 | | | | | | |
| 16 | 52.412 | 1009.6 | 0.3296 | | | | | | |
| 17 | 51.111 | 1025.4 | 0.3151 | | | | | | |
| 18 | 49.249 | 1034.6 | 0.3026 | | | | | | |
| 19 | 47.275 | 1031.2 | 0.2909 | | | | | | |
| 20 | 45.025 | 1011.6 | 0.2805 | | | | | | |
| 21 | 41.409 | 968.9 | 0.2708 | | | | | | |
| 22 | 36.589 | 912.5 | 0.2627 | | | | | | |
| 23 | 30.163 | 835.9 | 0.2555 | | | | | | |
| 24 | 14.166 | 689.5 | 0.2508 | | | | | | |
| 25 | 8.263 | 633.0 | 0.2478 | | | | | | |

Table 4-24. LS1 Burnup and TH Feedback Parameters Assembly C1

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.543 | 638.0 | 0.7396 | 2.776 | 625.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.182 | 856.3 | 0.7396 | 9.387 | 806.2 | 0.7396 |
| 3 | 0.000 | | 0.7342 | 7.196 | 933.8 | 0.7342 | 13.258 | 881.6 | 0.7364 |
| 4 | 0.000 | Data | 0.6972 | 8.386 | 1015.6 | 0.6972 | 15.477 | 951.3 | 0.7023 |
| 5 | 0.000 | Not | 0.6468 | 8.829 | 1048.0 | 0.6468 | 16.313 | 979.4 | 0.6552 |
| 6 | 0.000 | Required | 0.5913 | 8.896 | 1052.9 | 0.5913 | 16.513 | 989.1 | 0.6030 |
| 7 | 0.000 | | 0.5380 | 8.853 | 1049.7 | 0.5380 | 16.540 | 994.3 | 0.5522 |
| 8 | 0.000 | | 0.4910 | 8.860 | 1050.3 | 0.4910 | 16.648 | 1001.8 | 0.5067 |
| 9 | 0.000 | | 0.4502 | 9.200 | 1075.9 | 0.4502 | 17.289 | 1024.4 | 0.4663 |
| 10 | 0.000 | | 0.4151 | 9.173 | 1073.9 | 0.4151 | 17.361 | 1032.0 | 0.4312 |
| 11 | 0.000 | | 0.3850 | 9.063 | 1065.5 | 0.3850 | 17.323 | 1037.6 | 0.4009 |
| 12 | 0.000 | | 0.3592 | 8.910 | 1054.0 | 0.3592 | 17.231 | 1042.3 | 0.3746 |
| 13 | 0.000 | | 0.3370 | 8.730 | 1040.6 | 0.3370 | 17.110 | 1046.9 | 0.3516 |
| 14 | 0.000 | | 0.3178 | 8.526 | 1025.7 | 0.3178 | 16.959 | 1051.1 | 0.3315 |
| 15 | 0.000 | | 0.3009 | 8.294 | 1009.0 | 0.3009 | 16.765 | 1054.1 | 0.3136 |
| 16 | 0.000 | | 0.2862 | 8.023 | 989.8 | 0.2862 | 16.504 | 1054.8 | 0.2977 |
| 17 | 0.000 | | 0.2732 | 7.697 | 967.3 | 0.2732 | 16.135 | 1051.5 | 0.2835 |
| 18 | 0.000 | | 0.2619 | 7.296 | 940.4 | 0.2619 | 15.601 | 1041.1 | 0.2709 |
| 19 | 0.000 | | 0.2519 | 6.804 | 908.4 | 0.2519 | 14.831 | 1019.7 | 0.2596 |
| 20 | 0.000 | | 0.2434 | 6.205 | 871.1 | 0.2434 | 13.752 | 984.0 | 0.2498 |
| 21 | 0.000 | | 0.2362 | 5.362 | 821.3 | 0.2362 | 12.077 | 925.2 | 0.2415 |
| 22 | 0.000 | | 0.2304 | 4.486 | 772.7 | 0.2304 | 10.171 | 857.5 | 0.2346 |
| 23 | 0.000 | | 0.2258 | 3.618 | 727.4 | 0.2258 | 8.153 | 788.1 | 0.2291 |
| 24 | 0.000 | | 0.2228 | 1.599 | 631.6 | 0.2228 | 3.659 | 657.3 | 0.2255 |
| 25 | 0.000 | | 0.2214 | 0.963 | 603.8 | 0.2214 | 2.150 | 616.2 | 0.2237 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 3.734 | 618.5 | 0.7396 | 4.763 | 665.6 | 0.7396 | 6.044 | 640.4 | 0.7396 |
| 2 | 12.818 | 791.3 | 0.7396 | 16.272 | 980.4 | 0.7396 | 20.456 | 856.6 | 0.7396 |
| 3 | 17.920 | 840.5 | 0.7367 | 22.151 | 1020.1 | 0.7341 | 27.487 | 896.4 | 0.7347 |
| 4 | 20.875 | 895.1 | 0.7042 | 25.261 | 1042.7 | 0.6998 | 31.220 | 946.4 | 0.7014 |
| 5 | 22.471 | 955.4 | 0.6598 | 26.763 | 1029.0 | 0.6546 | 33.060 | 974.8 | 0.6570 |
| 6 | 23.368 | 1014.6 | 0.6100 | 27.531 | 1010.4 | 0.6049 | 34.009 | 990.3 | 0.6078 |
| 7 | 23.831 | 1053.6 | 0.5597 | 27.888 | 995.4 | 0.5554 | 34.485 | 1000.7 | 0.5583 |
| 8 | 24.023 | 1061.3 | 0.5127 | 28.025 | 987.7 | 0.5095 | 34.753 | 1012.2 | 0.5124 |
| 9 | 24.799 | 1073.8 | 0.4713 | 28.810 | 988.9 | 0.4690 | 35.713 | 1027.9 | 0.4717 |
| 10 | 25.171 | 1102.1 | 0.4365 | 29.120 | 980.3 | 0.4349 | 35.999 | 1025.7 | 0.4371 |
| 11 | 25.103 | 1099.2 | 0.4050 | 29.024 | 976.5 | 0.4041 | 35.834 | 1019.5 | 0.4063 |
| 12 | 24.846 | 1083.6 | 0.3775 | 28.753 | 974.5 | 0.3772 | 35.448 | 1009.3 | 0.3793 |
| 13 | 24.579 | 1070.0 | 0.3539 | 28.470 | 972.3 | 0.3540 | 35.000 | 994.8 | 0.3561 |
| 14 | 24.218 | 1050.6 | 0.3331 | 28.097 | 970.7 | 0.3334 | 34.429 | 977.7 | 0.3356 |
| 15 | 23.782 | 1028.9 | 0.3147 | 27.647 | 968.8 | 0.3154 | 33.742 | 957.7 | 0.3176 |
| 16 | 23.257 | 1005.6 | 0.2986 | 27.096 | 965.2 | 0.2993 | 32.902 | 933.9 | 0.3016 |
| 17 | 22.595 | 980.5 | 0.2843 | 26.389 | 959.2 | 0.2852 | 31.843 | 905.7 | 0.2876 |
| 18 | 21.747 | 954.4 | 0.2717 | 25.471 | 949.8 | 0.2726 | 30.537 | 875.7 | 0.2751 |
| 19 | 20.675 | 929.9 | 0.2606 | 24.301 | 936.8 | 0.2616 | 29.010 | 849.0 | 0.2642 |
| 20 | 19.305 | 907.0 | 0.2512 | 22.786 | 917.9 | 0.2521 | 27.171 | 825.5 | 0.2549 |
| 21 | 17.121 | 868.4 | 0.2429 | 20.335 | 884.2 | 0.2437 | 24.311 | 796.8 | 0.2467 |
| 22 | 14.513 | 817.9 | 0.2360 | 17.357 | 839.7 | 0.2367 | 20.823 | 762.5 | 0.2399 |
| 23 | 11.551 | 754.8 | 0.2304 | 13.854 | 778.8 | 0.2311 | 16.635 | 718.8 | 0.2343 |
| 24 | 5.132 | 640.6 | 0.2268 | 6.139 | 650.2 | 0.2274 | 7.376 | 628.7 | 0.2308 |
| 25 | 2.973 | 605.7 | 0.2250 | 3.534 | 610.6 | 0.2256 | 4.223 | 599.2 | 0.2290 |

Table 4-24. LS1 Burnup and TH Feedback Parameters Assembly C1 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.810 | 641.9 | 0.7396 | 8.192 | 649.4 | 0.7396 | 8.196 | 572.9 | 0.7396 |
| 2 | 22.894 | 853.6 | 0.7396 | 26.931 | 852.8 | 0.7396 | 26.943 | 598.8 | 0.7396 |
| 3 | 30.615 | 895.4 | 0.7349 | 35.374 | 861.5 | 0.7350 | 35.388 | 601.7 | 0.735 |
| 4 | 34.728 | 947.2 | 0.7018 | 39.673 | 875.9 | 0.7024 | 39.689 | 607.3 | 0.7025 |
| 5 | 36.743 | 972.2 | 0.6576 | 41.734 | 879.5 | 0.6594 | 41.752 | 613.0 | 0.6594 |
| 6 | 37.745 | 979.8 | 0.6086 | 42.798 | 884.3 | 0.6118 | 42.817 | 615.8 | 0.6118 |
| 7 | 38.234 | 981.7 | 0.5593 | 43.403 | 893.5 | 0.5640 | 43.424 | 621.5 | 0.5641 |
| 8 | 38.526 | 985.3 | 0.5134 | 43.861 | 906.8 | 0.5195 | 43.885 | 630.2 | 0.5197 |
| 9 | 39.546 | 994.1 | 0.4728 | 45.101 | 924.8 | 0.4797 | 45.127 | 636.0 | 0.4798 |
| 10 | 39.819 | 992.2 | 0.4381 | 45.533 | 938.0 | 0.4454 | 45.561 | 641.9 | 0.4456 |
| 11 | 39.637 | 989.7 | 0.4074 | 45.523 | 952.6 | 0.4148 | 45.553 | 647.8 | 0.4151 |
| 12 | 39.241 | 988.2 | 0.3805 | 45.305 | 967.9 | 0.3881 | 45.336 | 650.7 | 0.3883 |
| 13 | 38.794 | 988.3 | 0.3573 | 45.027 | 982.6 | 0.3646 | 45.059 | 653.7 | 0.3649 |
| 14 | 38.258 | 993.5 | 0.3368 | 44.651 | 996.8 | 0.3440 | 44.684 | 656.7 | 0.3442 |
| 15 | 37.633 | 1002.7 | 0.3187 | 44.168 | 1009.6 | 0.3256 | 44.202 | 659.7 | 0.3258 |
| 16 | 36.829 | 1008.1 | 0.3027 | 43.487 | 1020.9 | 0.3093 | 43.520 | 656.7 | 0.3095 |
| 17 | 35.722 | 1000.9 | 0.2885 | 42.470 | 1029.2 | 0.2947 | 42.503 | 656.7 | 0.2949 |
| 18 | 34.270 | 979.4 | 0.2759 | 41.048 | 1032.0 | 0.2818 | 41.081 | 656.7 | 0.2820 |
| 19 | 32.545 | 951.0 | 0.2649 | 39.255 | 1025.7 | 0.2702 | 39.287 | 653.7 | 0.2704 |
| 20 | 30.477 | 919.2 | 0.2554 | 36.972 | 1006.0 | 0.2602 | 37.004 | 653.7 | 0.2604 |
| 21 | 27.302 | 877.4 | 0.2472 | 33.322 | 964.1 | 0.2514 | 33.352 | 647.8 | 0.2517 |
| 22 | 23.428 | 828.9 | 0.2403 | 28.768 | 907.2 | 0.2441 | 28.794 | 636.0 | 0.2443 |
| 23 | 18.729 | 768.9 | 0.2346 | 23.063 | 829.6 | 0.2380 | 23.084 | 621.5 | 0.2382 |
| 24 | 8.325 | 649.8 | 0.2311 | 10.338 | 675.5 | 0.2343 | 10.347 | 587.8 | 0.2345 |
| 25 | 4.757 | 610.9 | 0.2292 | 5.884 | 624.2 | 0.2323 | 5.889 | 576.7 | 0.2324 |

Table 4-25. LS1 Burnup and TH Feedback Parameters Assembly C2

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.704 | 646.6 | 0.7396 | 3.158 | 637.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.654 | 889.0 | 0.7396 | 10.612 | 858.6 | 0.7396 |
| 3 | 0.000 | | 0.7298 | 7.763 | 971.8 | 0.7298 | 14.787 | 946.5 | 0.7306 |
| 4 | 0.000 | Data | 0.6870 | 8.996 | 1060.4 | 0.6870 | 17.064 | 1022.8 | 0.6889 |
| 5 | 0.000 | Not | 0.6299 | 9.461 | 1096.1 | 0.6299 | 17.889 | 1050.7 | 0.6336 |
| 6 | 0.000 | Required | 0.5692 | 9.542 | 1102.4 | 0.5692 | 18.070 | 1058.5 | 0.5752 |
| 7 | 0.000 | | 0.5135 | 9.512 | 1100.1 | 0.5135 | 18.088 | 1062.3 | 0.5214 |
| 8 | 0.000 | | 0.4660 | 9.532 | 1101.6 | 0.4660 | 18.190 | 1068.9 | 0.4751 |
| 9 | 0.000 | | 0.4257 | 9.890 | 1130.1 | 0.4257 | 18.818 | 1090.7 | 0.4352 |
| 10 | 0.000 | | 0.3912 | 9.855 | 1127.3 | 0.3912 | 18.873 | 1098.0 | 0.4009 |
| 11 | 0.000 | | 0.3617 | 9.725 | 1116.9 | 0.3617 | 18.816 | 1104.1 | 0.3715 |
| 12 | 0.000 | | 0.3367 | 9.543 | 1102.5 | 0.3367 | 18.701 | 1109.6 | 0.3461 |
| 13 | 0.000 | | 0.3154 | 9.330 | 1085.9 | 0.3154 | 18.548 | 1114.6 | 0.3241 |
| 14 | 0.000 | | 0.2969 | 9.090 | 1067.5 | 0.2969 | 18.360 | 1119.0 | 0.3048 |
| 15 | 0.000 | | 0.2809 | 8.822 | 1047.4 | 0.2809 | 18.131 | 1122.2 | 0.2878 |
| 16 | 0.000 | | 0.2668 | 8.516 | 1025.0 | 0.2668 | 17.850 | 1124.3 | 0.2727 |
| 17 | 0.000 | | 0.2545 | 8.161 | 999.5 | 0.2545 | 17.481 | 1123.2 | 0.2592 |
| 18 | 0.000 | | 0.2438 | 7.738 | 970.1 | 0.2438 | 16.959 | 1114.9 | 0.2471 |
| 19 | 0.000 | | 0.2344 | 7.223 | 935.6 | 0.2344 | 16.176 | 1092.7 | 0.2364 |
| 20 | 0.000 | | 0.2263 | 6.592 | 895.0 | 0.2263 | 15.038 | 1052.1 | 0.2271 |
| 21 | 0.000 | | 0.2195 | 5.705 | 841.2 | 0.2195 | 13.232 | 982.5 | 0.2191 |
| 22 | 0.000 | | 0.2139 | 4.789 | 789.1 | 0.2139 | 11.173 | 902.8 | 0.2126 |
| 23 | 0.000 | | 0.2096 | 3.892 | 741.4 | 0.2096 | 9.008 | 822.4 | 0.2074 |
| 24 | 0.000 | | 0.2066 | 1.743 | 638.1 | 0.2066 | 4.105 | 672.1 | 0.2040 |
| 25 | 0.000 | | 0.2053 | 1.060 | 608.0 | 0.2053 | 2.444 | 625.3 | 0.2024 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.364 | 634.3 | 0.7396 | 5.065 | 630.5 | 0.7396 | 5.870 | 609.7 | 0.7396 |
| 2 | 14.801 | 851.9 | 0.7396 | 17.108 | 818.1 | 0.7396 | 19.758 | 735.7 | 0.7396 |
| 3 | 20.126 | 890.6 | 0.7326 | 22.932 | 835.3 | 0.7338 | 26.246 | 752.6 | 0.7354 |
| 4 | 22.824 | 923.3 | 0.6945 | 25.797 | 854.9 | 0.6976 | 29.441 | 774.3 | 0.7018 |
| 5 | 23.759 | 932.0 | 0.6438 | 26.788 | 861.6 | 0.6494 | 30.680 | 791.1 | 0.6572 |
| 6 | 23.941 | 932.1 | 0.5896 | 26.999 | 865.1 | 0.5976 | 31.117 | 806.7 | 0.6095 |
| 7 | 23.923 | 929.2 | 0.5385 | 27.003 | 867.8 | 0.5486 | 31.331 | 821.4 | 0.5639 |
| 8 | 23.986 | 926.1 | 0.4935 | 27.083 | 869.9 | 0.5048 | 31.630 | 837.2 | 0.5228 |
| 9 | 24.644 | 928.5 | 0.4540 | 27.791 | 876.0 | 0.4657 | 32.785 | 870.2 | 0.4861 |
| 10 | 24.651 | 924.7 | 0.4198 | 27.808 | 877.2 | 0.4319 | 33.803 | 949.4 | 0.4554 |
| 11 | 24.526 | 919.3 | 0.3904 | 27.686 | 877.6 | 0.4024 | 34.029 | 978.7 | 0.4248 |
| 12 | 24.332 | 913.1 | 0.3651 | 27.487 | 876.9 | 0.3770 | 33.921 | 986.5 | 0.3974 |
| 13 | 24.115 | 908.1 | 0.3432 | 27.262 | 876.0 | 0.3549 | 33.917 | 1005.8 | 0.3746 |
| 14 | 23.829 | 900.5 | 0.3237 | 26.967 | 874.9 | 0.3353 | 33.585 | 1002.5 | 0.3530 |
| 15 | 23.478 | 891.2 | 0.3062 | 26.603 | 873.3 | 0.3176 | 33.083 | 990.5 | 0.3337 |
| 16 | 23.056 | 880.5 | 0.2906 | 26.157 | 870.4 | 0.3019 | 32.548 | 982.8 | 0.3170 |
| 17 | 22.523 | 868.2 | 0.2768 | 25.586 | 865.7 | 0.2878 | 31.755 | 963.9 | 0.3016 |
| 18 | 21.821 | 855.0 | 0.2644 | 24.829 | 859.1 | 0.2753 | 30.714 | 940.3 | 0.2881 |
| 19 | 20.850 | 841.4 | 0.2536 | 23.789 | 850.9 | 0.2644 | 29.390 | 917.3 | 0.2764 |
| 20 | 19.496 | 826.0 | 0.2444 | 22.336 | 839.2 | 0.2551 | 27.567 | 888.3 | 0.2663 |
| 21 | 17.325 | 800.7 | 0.2368 | 19.972 | 817.0 | 0.2475 | 24.665 | 847.8 | 0.2580 |
| 22 | 14.759 | 767.0 | 0.2305 | 17.134 | 786.6 | 0.2413 | 21.175 | 801.3 | 0.2512 |
| 23 | 11.874 | 721.4 | 0.2250 | 13.826 | 741.7 | 0.2357 | 17.005 | 743.9 | 0.2451 |
| 24 | 5.368 | 629.1 | 0.2210 | 6.228 | 636.9 | 0.2313 | 7.582 | 635.2 | 0.2402 |
| 25 | 3.139 | 598.9 | 0.2183 | 3.608 | 602.7 | 0.2282 | 4.333 | 601.1 | 0.2367 |

Table 4-25. LS1 Burnup and TH Feedback Parameters Assembly C2 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.173 | 591.6 | 0.7396 | 6.943 | 608.7 | 0.7396 | 6.952 | 589.0 | 0.7396 |
| 2 | 20.731 | 665.4 | 0.7396 | 23.016 | 713.4 | 0.7396 | 23.041 | 642.7 | 0.7396 |
| 3 | 27.464 | 676.1 | 0.7363 | 30.157 | 717.5 | 0.7377 | 30.186 | 644.8 | 0.7377 |
| 4 | 30.802 | 690.4 | 0.7041 | 33.648 | 727.3 | 0.7075 | 33.679 | 650.7 | 0.7075 |
| 5 | 32.166 | 703.3 | 0.6616 | 35.143 | 735.7 | 0.6678 | 35.177 | 659.7 | 0.6679 |
| 6 | 32.726 | 716.1 | 0.6163 | 35.870 | 746.7 | 0.6255 | 35.907 | 668.8 | 0.6256 |
| 7 | 33.051 | 727.8 | 0.5730 | 36.390 | 759.7 | 0.5850 | 36.430 | 678.0 | 0.5851 |
| 8 | 33.447 | 738.3 | 0.5337 | 36.987 | 773.3 | 0.5479 | 37.030 | 687.3 | 0.5481 |
| 9 | 34.685 | 747.3 | 0.4981 | 38.434 | 787.7 | 0.5136 | 38.479 | 693.6 | 0.5137 |
| 10 | 35.717 | 748.9 | 0.4676 | 39.571 | 795.1 | 0.4834 | 39.618 | 700.0 | 0.4835 |
| 11 | 35.978 | 752.7 | 0.4376 | 39.993 | 806.5 | 0.4540 | 40.041 | 703.2 | 0.4541 |
| 12 | 35.908 | 756.9 | 0.4106 | 40.104 | 819.5 | 0.4275 | 40.152 | 703.2 | 0.4276 |
| 13 | 35.924 | 759.2 | 0.3877 | 40.277 | 831.0 | 0.4046 | 40.325 | 703.2 | 0.4047 |
| 14 | 35.624 | 762.7 | 0.3663 | 40.159 | 844.5 | 0.3833 | 40.207 | 703.2 | 0.3833 |
| 15 | 35.153 | 766.2 | 0.3471 | 39.876 | 858.8 | 0.3639 | 39.925 | 706.4 | 0.3641 |
| 16 | 34.634 | 768.0 | 0.3303 | 39.528 | 871.9 | 0.3469 | 39.576 | 703.2 | 0.3470 |
| 17 | 33.848 | 768.8 | 0.3149 | 38.905 | 884.6 | 0.3313 | 38.953 | 703.2 | 0.3315 |
| 18 | 32.804 | 768.5 | 0.3012 | 37.997 | 895.4 | 0.3175 | 38.044 | 700.0 | 0.3176 |
| 19 | 31.471 | 767.5 | 0.2896 | 36.764 | 903.4 | 0.3057 | 36.809 | 693.6 | 0.3057 |
| 20 | 29.721 | 775.7 | 0.2803 | 35.003 | 902.5 | 0.2958 | 35.048 | 693.6 | 0.2959 |
| 21 | 27.165 | 816.2 | 0.2747 | 32.137 | 878.0 | 0.2890 | 32.178 | 681.1 | 0.2891 |
| 22 | 23.573 | 804.0 | 0.2685 | 28.100 | 843.9 | 0.2821 | 28.136 | 665.8 | 0.2822 |
| 23 | 18.965 | 753.9 | 0.2616 | 22.701 | 786.8 | 0.2747 | 22.731 | 647.8 | 0.2748 |
| 24 | 8.427 | 639.8 | 0.2559 | 10.123 | 656.8 | 0.2688 | 10.137 | 601.7 | 0.2689 |
| 25 | 4.802 | 605.0 | 0.2521 | 5.729 | 613.1 | 0.2649 | 5.736 | 582.2 | 0.2649 |

Table 4-26. LS1 Burnup and TH Feedback Parameters Assembly C3

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.827 | 653.2 | 0.7396 | 3.266 | 636.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.103 | 921.0 | 0.7396 | 11.026 | 856.1 | 0.7396 |
| 3 | 0.000 | | 0.7253 | 8.379 | 1015.1 | 0.7253 | 15.258 | 936.4 | 0.7284 |
| 4 | 0.000 | Data | 0.6770 | 9.606 | 1107.4 | 0.6770 | 17.419 | 1003.6 | 0.6843 |
| 5 | 0.000 | Not | 0.6145 | 9.951 | 1135.0 | 0.6145 | 18.091 | 1028.3 | 0.6270 |
| 6 | 0.000 | Required | 0.5513 | 9.903 | 1131.1 | 0.5513 | 18.158 | 1037.2 | 0.5682 |
| 7 | 0.000 | | 0.4958 | 9.785 | 1121.7 | 0.4958 | 18.114 | 1042.9 | 0.5151 |
| 8 | 0.000 | | 0.4498 | 9.747 | 1118.6 | 0.4498 | 18.181 | 1051.1 | 0.4699 |
| 9 | 0.000 | | 0.4110 | 10.070 | 1144.7 | 0.4110 | 18.788 | 1073.7 | 0.4309 |
| 10 | 0.000 | | 0.3777 | 10.017 | 1140.3 | 0.3777 | 18.845 | 1082.5 | 0.3973 |
| 11 | 0.000 | | 0.3495 | 9.883 | 1129.5 | 0.3495 | 18.805 | 1090.2 | 0.3684 |
| 12 | 0.000 | | 0.3254 | 9.705 | 1115.3 | 0.3254 | 18.714 | 1097.3 | 0.3435 |
| 13 | 0.000 | | 0.3048 | 9.498 | 1099.0 | 0.3048 | 18.587 | 1103.9 | 0.3218 |
| 14 | 0.000 | | 0.2870 | 9.264 | 1080.8 | 0.2870 | 18.427 | 1110.0 | 0.3028 |
| 15 | 0.000 | | 0.2715 | 9.001 | 1060.8 | 0.2715 | 18.229 | 1115.4 | 0.2860 |
| 16 | 0.000 | | 0.2579 | 8.701 | 1038.5 | 0.2579 | 17.979 | 1119.6 | 0.2710 |
| 17 | 0.000 | | 0.2460 | 8.348 | 1012.8 | 0.2460 | 17.640 | 1120.8 | 0.2576 |
| 18 | 0.000 | | 0.2355 | 7.925 | 983.0 | 0.2355 | 17.146 | 1114.9 | 0.2457 |
| 19 | 0.000 | | 0.2263 | 7.408 | 947.8 | 0.2263 | 16.391 | 1095.2 | 0.2351 |
| 20 | 0.000 | | 0.2185 | 6.773 | 906.5 | 0.2185 | 15.278 | 1056.7 | 0.2257 |
| 21 | 0.000 | | 0.2118 | 5.872 | 851.1 | 0.2118 | 13.484 | 988.7 | 0.2178 |
| 22 | 0.000 | | 0.2064 | 4.934 | 797.1 | 0.2064 | 11.414 | 909.2 | 0.2112 |
| 23 | 0.000 | | 0.2022 | 4.009 | 747.4 | 0.2022 | 9.212 | 827.7 | 0.2060 |
| 24 | 0.000 | | 0.1992 | 1.794 | 640.4 | 0.1992 | 4.193 | 673.9 | 0.2026 |
| 25 | 0.000 | | 0.1980 | 1.094 | 609.5 | 0.1980 | 2.496 | 626.1 | 0.2008 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.255 | 620.5 | 0.7396 | 4.796 | 613.9 | 0.7396 | 6.086 | 641.0 | 0.7396 |
| 2 | 14.437 | 789.8 | 0.7396 | 16.223 | 752.7 | 0.7396 | 20.454 | 860.6 | 0.7396 |
| 3 | 19.582 | 816.7 | 0.7320 | 21.759 | 765.2 | 0.7338 | 27.141 | 900.0 | 0.7344 |
| 4 | 22.129 | 844.0 | 0.6933 | 24.458 | 781.6 | 0.6976 | 30.466 | 950.4 | 0.6992 |
| 5 | 22.992 | 857.8 | 0.6427 | 25.398 | 790.0 | 0.6502 | 31.786 | 982.5 | 0.6530 |
| 6 | 23.177 | 866.5 | 0.5901 | 25.645 | 796.8 | 0.6007 | 32.266 | 1002.8 | 0.6037 |
| 7 | 23.210 | 872.2 | 0.5415 | 25.734 | 803.1 | 0.5546 | 32.504 | 1016.0 | 0.5568 |
| 8 | 23.324 | 875.8 | 0.4986 | 25.898 | 808.7 | 0.5134 | 32.794 | 1027.3 | 0.5143 |
| 9 | 24.013 | 881.9 | 0.4600 | 26.659 | 816.8 | 0.4757 | 33.748 | 1044.8 | 0.4757 |
| 10 | 24.060 | 881.2 | 0.4263 | 26.740 | 820.7 | 0.4425 | 33.889 | 1050.4 | 0.4418 |
| 11 | 23.988 | 878.7 | 0.3970 | 26.693 | 823.6 | 0.4134 | 33.821 | 1048.4 | 0.4122 |
| 12 | 23.842 | 874.6 | 0.3714 | 26.566 | 825.8 | 0.3878 | 33.604 | 1040.2 | 0.3863 |
| 13 | 23.643 | 869.3 | 0.3490 | 26.381 | 827.4 | 0.3653 | 33.278 | 1027.4 | 0.3635 |
| 14 | 23.398 | 863.0 | 0.3293 | 26.144 | 828.3 | 0.3453 | 32.855 | 1010.7 | 0.3435 |
| 15 | 23.098 | 855.5 | 0.3117 | 25.847 | 828.6 | 0.3275 | 32.326 | 990.4 | 0.3257 |
| 16 | 22.729 | 846.8 | 0.2960 | 25.472 | 827.9 | 0.3116 | 31.661 | 965.6 | 0.3099 |
| 17 | 22.253 | 837.0 | 0.2820 | 24.979 | 826.0 | 0.2973 | 30.808 | 935.7 | 0.2958 |
| 18 | 21.607 | 826.2 | 0.2695 | 24.305 | 822.8 | 0.2846 | 29.741 | 904.3 | 0.2834 |
| 19 | 20.692 | 815.1 | 0.2586 | 23.345 | 817.6 | 0.2736 | 28.405 | 875.2 | 0.2726 |
| 20 | 19.389 | 802.0 | 0.2494 | 21.972 | 809.7 | 0.2643 | 26.683 | 849.1 | 0.2635 |
| 21 | 17.270 | 780.1 | 0.2418 | 19.695 | 792.1 | 0.2569 | 23.953 | 816.5 | 0.2559 |
| 22 | 14.750 | 750.8 | 0.2356 | 16.947 | 767.4 | 0.2509 | 20.656 | 778.7 | 0.2499 |
| 23 | 11.896 | 710.3 | 0.2299 | 13.718 | 728.4 | 0.2451 | 16.689 | 730.6 | 0.2443 |
| 24 | 5.376 | 624.8 | 0.2257 | 6.178 | 631.8 | 0.2404 | 7.496 | 633.2 | 0.2398 |
| 25 | 3.139 | 596.2 | 0.2223 | 3.571 | 599.5 | 0.2361 | 4.305 | 601.6 | 0.2360 |

Table 4-26. LS1 Burnup and TH Feedback Parameters Assembly C3 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.831 | 639.5 | 0.7396 | 8.230 | 650.5 | 0.7396 | 8.238 | 585.8 | 0.7396 |
| 2 | 22.808 | 841.7 | 0.7396 | 26.849 | 853.1 | 0.7396 | 26.873 | 639.3 | 0.7396 |
| 3 | 30.132 | 877.4 | 0.7347 | 34.866 | 859.6 | 0.7349 | 34.894 | 641.9 | 0.7349 |
| 4 | 33.813 | 924.8 | 0.7002 | 38.743 | 874.7 | 0.7012 | 38.774 | 650.7 | 0.7012 |
| 5 | 35.335 | 953.0 | 0.6547 | 40.355 | 881.7 | 0.6570 | 40.390 | 662.7 | 0.6571 |
| 6 | 35.917 | 967.5 | 0.6058 | 41.046 | 890.3 | 0.6095 | 41.084 | 671.9 | 0.6097 |
| 7 | 36.198 | 973.7 | 0.5588 | 41.468 | 901.6 | 0.5638 | 41.508 | 678.0 | 0.5640 |
| 8 | 36.512 | 977.2 | 0.5161 | 41.943 | 914.6 | 0.5220 | 41.987 | 690.5 | 0.5222 |
| 9 | 37.517 | 984.7 | 0.4773 | 43.163 | 932.3 | 0.4837 | 43.209 | 696.8 | 0.4839 |
| 10 | 37.659 | 984.8 | 0.4432 | 43.477 | 946.8 | 0.4499 | 43.525 | 703.2 | 0.4500 |
| 11 | 37.573 | 982.2 | 0.4135 | 43.557 | 961.0 | 0.4201 | 43.606 | 706.4 | 0.4203 |
| 12 | 37.345 | 980.6 | 0.3875 | 43.497 | 975.5 | 0.3940 | 43.547 | 709.6 | 0.3941 |
| 13 | 37.028 | 981.9 | 0.3646 | 43.346 | 990.2 | 0.3708 | 43.396 | 709.6 | 0.3710 |
| 14 | 36.650 | 988.5 | 0.3445 | 43.125 | 1004.2 | 0.3503 | 43.174 | 706.4 | 0.3505 |
| 15 | 36.198 | 999.9 | 0.3266 | 42.813 | 1016.9 | 0.3320 | 42.861 | 703.2 | 0.3322 |
| 16 | 35.588 | 1008.1 | 0.3106 | 42.327 | 1028.3 | 0.3156 | 42.374 | 700.0 | 0.3158 |
| 17 | 34.710 | 1004.4 | 0.2964 | 41.549 | 1037.6 | 0.3009 | 41.595 | 696.8 | 0.3010 |
| 18 | 33.525 | 986.9 | 0.2837 | 40.414 | 1042.3 | 0.2878 | 40.458 | 690.5 | 0.2879 |
| 19 | 32.018 | 962.1 | 0.2728 | 38.863 | 1038.2 | 0.2762 | 38.905 | 684.2 | 0.2763 |
| 20 | 30.095 | 933.8 | 0.2634 | 36.752 | 1020.8 | 0.2661 | 36.792 | 678.0 | 0.2663 |
| 21 | 27.068 | 893.6 | 0.2557 | 33.271 | 980.0 | 0.2578 | 33.307 | 665.8 | 0.2578 |
| 22 | 23.396 | 845.5 | 0.2493 | 28.930 | 923.1 | 0.2507 | 28.962 | 653.7 | 0.2509 |
| 23 | 18.909 | 783.3 | 0.2436 | 23.436 | 843.9 | 0.2446 | 23.462 | 636.0 | 0.2447 |
| 24 | 8.506 | 655.6 | 0.2392 | 10.633 | 682.4 | 0.2401 | 10.644 | 593.3 | 0.2401 |
| 25 | 4.872 | 613.9 | 0.2356 | 6.071 | 628.3 | 0.2366 | 6.077 | 579.5 | 0.2368 |

Table 4-27. LS1 Burnup and TH Feedback Parameters Assembly C4

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.788 | 651.1 | 0.7396 | 3.261 | 638.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.916 | 907.5 | 0.7396 | 10.907 | 861.0 | 0.7396 |
| 3 | 0.000 | | 0.7270 | 8.083 | 994.0 | 0.7270 | 15.048 | 942.4 | 0.7290 |
| 4 | 0.000 | Data | 0.6810 | 9.297 | 1083.4 | 0.6810 | 17.221 | 1011.9 | 0.6855 |
| 5 | 0.000 | Not | 0.6206 | 9.700 | 1114.9 | 0.6206 | 17.961 | 1037.7 | 0.6285 |
| 6 | 0.000 | Required | 0.5583 | 9.721 | 1116.6 | 0.5583 | 18.103 | 1047.1 | 0.5695 |
| 7 | 0.000 | | 0.5027 | 9.659 | 1111.6 | 0.5027 | 18.126 | 1053.7 | 0.5160 |
| 8 | 0.000 | | 0.4560 | 9.664 | 1112.0 | 0.4560 | 18.249 | 1063.1 | 0.4704 |
| 9 | 0.000 | | 0.4165 | 10.017 | 1140.3 | 0.4165 | 18.900 | 1087.0 | 0.4310 |
| 10 | 0.000 | | 0.3826 | 9.985 | 1137.8 | 0.3826 | 18.988 | 1096.8 | 0.3971 |
| 11 | 0.000 | | 0.3537 | 9.866 | 1128.1 | 0.3537 | 18.972 | 1105.3 | 0.3680 |
| 12 | 0.000 | | 0.3292 | 9.699 | 1114.8 | 0.3292 | 18.900 | 1113.2 | 0.3428 |
| 13 | 0.000 | | 0.3082 | 9.500 | 1099.1 | 0.3082 | 18.789 | 1120.6 | 0.3210 |
| 14 | 0.000 | | 0.2900 | 9.274 | 1081.6 | 0.2900 | 18.642 | 1127.2 | 0.3018 |
| 15 | 0.000 | | 0.2742 | 9.019 | 1062.2 | 0.2742 | 18.452 | 1132.7 | 0.2848 |
| 16 | 0.000 | | 0.2603 | 8.728 | 1040.5 | 0.2603 | 18.199 | 1135.9 | 0.2697 |
| 17 | 0.000 | | 0.2481 | 8.387 | 1015.6 | 0.2481 | 17.843 | 1134.7 | 0.2562 |
| 18 | 0.000 | | 0.2375 | 7.976 | 986.6 | 0.2375 | 17.320 | 1125.2 | 0.2441 |
| 19 | 0.000 | | 0.2282 | 7.469 | 951.9 | 0.2282 | 16.537 | 1102.2 | 0.2335 |
| 20 | 0.000 | | 0.2202 | 6.839 | 910.7 | 0.2202 | 15.401 | 1061.2 | 0.2242 |
| 21 | 0.000 | | 0.2133 | 5.934 | 854.8 | 0.2133 | 13.589 | 991.9 | 0.2163 |
| 22 | 0.000 | | 0.2079 | 4.989 | 800.2 | 0.2079 | 11.500 | 911.3 | 0.2098 |
| 23 | 0.000 | | 0.2035 | 4.056 | 749.9 | 0.2035 | 9.276 | 828.7 | 0.2045 |
| 24 | 0.000 | | 0.2005 | 1.817 | 641.4 | 0.2005 | 4.227 | 674.5 | 0.2010 |
| 25 | 0.000 | | 0.1992 | 1.107 | 610.1 | 0.1992 | 2.517 | 626.5 | 0.1993 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.628 | 644.8 | 0.7396 | 5.419 | 640.0 | 0.7396 | 6.261 | 612.0 | 0.7396 |
| 2 | 15.662 | 899.8 | 0.7396 | 18.273 | 858.5 | 0.7396 | 20.942 | 737.1 | 0.7396 |
| 3 | 21.144 | 950.3 | 0.7300 | 24.370 | 885.7 | 0.7310 | 27.635 | 749.4 | 0.7336 |
| 4 | 23.846 | 994.6 | 0.6887 | 27.290 | 913.1 | 0.6914 | 30.861 | 769.5 | 0.6974 |
| 5 | 24.732 | 1007.2 | 0.6347 | 28.240 | 921.4 | 0.6396 | 32.076 | 787.3 | 0.6502 |
| 6 | 24.866 | 1006.5 | 0.5782 | 28.386 | 922.9 | 0.5851 | 32.488 | 805.6 | 0.6005 |
| 7 | 24.827 | 1001.1 | 0.5259 | 28.340 | 922.0 | 0.5342 | 32.691 | 823.1 | 0.5536 |
| 8 | 24.892 | 996.1 | 0.4808 | 28.397 | 921.0 | 0.4897 | 32.964 | 838.6 | 0.5117 |
| 9 | 25.570 | 998.5 | 0.4415 | 29.112 | 925.8 | 0.4507 | 33.897 | 854.6 | 0.4738 |
| 10 | 25.581 | 991.9 | 0.4077 | 29.111 | 924.2 | 0.4170 | 34.019 | 863.7 | 0.4404 |
| 11 | 25.452 | 982.2 | 0.3787 | 28.963 | 921.8 | 0.3879 | 33.941 | 869.0 | 0.4110 |
| 12 | 25.247 | 971.0 | 0.3536 | 28.736 | 918.9 | 0.3627 | 33.738 | 870.8 | 0.3852 |
| 13 | 24.991 | 959.0 | 0.3317 | 28.460 | 916.4 | 0.3408 | 33.446 | 869.6 | 0.3625 |
| 14 | 24.689 | 946.3 | 0.3125 | 28.136 | 913.5 | 0.3214 | 33.072 | 865.8 | 0.3423 |
| 15 | 24.330 | 932.7 | 0.2955 | 27.751 | 910.2 | 0.3043 | 32.605 | 859.7 | 0.3243 |
| 16 | 23.888 | 917.7 | 0.2803 | 27.275 | 905.9 | 0.2890 | 32.017 | 851.4 | 0.3082 |
| 17 | 23.313 | 900.6 | 0.2668 | 26.648 | 899.3 | 0.2754 | 31.249 | 841.1 | 0.2938 |
| 18 | 22.545 | 881.9 | 0.2548 | 25.807 | 890.2 | 0.2632 | 30.238 | 828.8 | 0.2810 |
| 19 | 21.522 | 864.0 | 0.2443 | 24.694 | 879.0 | 0.2525 | 28.926 | 814.7 | 0.2699 |
| 20 | 20.128 | 845.2 | 0.2351 | 23.183 | 864.8 | 0.2434 | 27.169 | 797.5 | 0.2603 |
| 21 | 17.910 | 816.4 | 0.2275 | 20.744 | 838.5 | 0.2358 | 24.360 | 772.5 | 0.2524 |
| 22 | 15.260 | 778.4 | 0.2212 | 17.781 | 802.7 | 0.2294 | 20.930 | 741.9 | 0.2459 |
| 23 | 12.256 | 728.4 | 0.2158 | 14.307 | 752.0 | 0.2239 | 16.796 | 700.9 | 0.2398 |
| 24 | 5.541 | 631.9 | 0.2120 | 6.442 | 640.6 | 0.2199 | 7.490 | 618.4 | 0.2349 |
| 25 | 3.243 | 600.6 | 0.2098 | 3.738 | 604.9 | 0.2172 | 4.281 | 591.4 | 0.2309 |

Table 4-27. LS1 Burnup and TH Feedback Parameters Assembly C4 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.629 | 598.4 | 0.7396 | 7.118 | 590.7 | 0.7396 | 7.126 | 585.8 | 0.7396 |
| 2 | 22.067 | 683.2 | 0.7396 | 23.498 | 652.7 | 0.7396 | 23.521 | 635.8 | 0.7396 |
| 3 | 28.992 | 690.0 | 0.7345 | 30.654 | 654.8 | 0.7357 | 30.682 | 641.9 | 0.7357 |
| 4 | 32.346 | 703.1 | 0.6999 | 34.096 | 659.9 | 0.7028 | 34.126 | 647.8 | 0.7028 |
| 5 | 33.680 | 715.5 | 0.6549 | 35.522 | 665.4 | 0.6601 | 35.555 | 656.7 | 0.6602 |
| 6 | 34.219 | 729.0 | 0.6076 | 36.186 | 672.8 | 0.6154 | 36.221 | 662.7 | 0.6156 |
| 7 | 34.544 | 742.2 | 0.5631 | 36.666 | 682.1 | 0.5737 | 36.705 | 674.9 | 0.5739 |
| 8 | 34.930 | 754.6 | 0.5230 | 37.227 | 692.8 | 0.5363 | 37.268 | 681.1 | 0.5365 |
| 9 | 35.982 | 767.9 | 0.4863 | 38.491 | 705.9 | 0.5022 | 38.535 | 690.5 | 0.5023 |
| 10 | 36.188 | 777.4 | 0.4537 | 38.891 | 718.1 | 0.4720 | 38.937 | 696.8 | 0.4722 |
| 11 | 36.178 | 785.2 | 0.4249 | 39.079 | 730.8 | 0.4454 | 39.127 | 703.2 | 0.4455 |
| 12 | 36.033 | 792.0 | 0.3993 | 39.135 | 743.9 | 0.4216 | 39.183 | 703.2 | 0.4218 |
| 13 | 35.791 | 797.8 | 0.3765 | 39.094 | 757.3 | 0.4003 | 39.143 | 706.4 | 0.4005 |
| 14 | 35.462 | 803.1 | 0.3562 | 38.963 | 770.6 | 0.3811 | 39.012 | 706.4 | 0.3812 |
| 15 | 35.032 | 807.5 | 0.3381 | 38.724 | 783.8 | 0.3637 | 38.773 | 706.4 | 0.3639 |
| 16 | 34.469 | 810.4 | 0.3218 | 38.344 | 796.6 | 0.3480 | 38.392 | 703.1 | 0.3481 |
| 17 | 33.713 | 811.9 | 0.3072 | 37.754 | 808.4 | 0.3336 | 37.802 | 703.1 | 0.3338 |
| 18 | 32.698 | 811.4 | 0.2943 | 36.874 | 818.1 | 0.3208 | 36.922 | 703.2 | 0.3209 |
| 19 | 31.360 | 808.3 | 0.2829 | 35.618 | 824.1 | 0.3095 | 35.664 | 696.8 | 0.3095 |
| 20 | 29.543 | 801.2 | 0.2732 | 33.798 | 823.8 | 0.2995 | 33.843 | 693.6 | 0.2996 |
| 21 | 26.590 | 784.4 | 0.2653 | 30.665 | 810.8 | 0.2915 | 30.707 | 684.2 | 0.2915 |
| 22 | 22.940 | 759.5 | 0.2588 | 26.683 | 787.3 | 0.2849 | 26.721 | 671.9 | 0.2850 |
| 23 | 18.427 | 718.4 | 0.2525 | 21.514 | 742.9 | 0.2781 | 21.545 | 650.7 | 0.2782 |
| 24 | 8.187 | 625.9 | 0.2469 | 9.528 | 636.3 | 0.2716 | 9.542 | 601.7 | 0.2716 |
| 25 | 4.640 | 595.0 | 0.2419 | 5.326 | 599.9 | 0.2646 | 5.333 | 582.2 | 0.2647 |

Table 4-28. LS1 Burnup and TH Feedback Parameters Assembly C5

| Node No. | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|-------------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.519 | 636.8 | 0.7396 | 2.661 | 620.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.082 | 849.6 | 0.7396 | 8.947 | 783.4 | 0.7396 |
| 3 | 0.000 | | 0.7353 | 6.991 | 920.4 | 0.7353 | 12.536 | 848.7 | 0.7382 |
| 4 | 0.000 | Data | 0.7004 | 8.084 | 994.1 | 0.7004 | 14.596 | 911.4 | 0.7073 |
| 5 | 0.000 | Not | 0.6528 | 8.482 | 1022.5 | 0.6528 | 15.394 | 938.7 | 0.6643 |
| 6 | 0.000 | Required | 0.6000 | 8.548 | 1027.3 | 0.6000 | 15.628 | 950.5 | 0.6156 |
| 7 | 0.000 | | 0.5483 | 8.517 | 1025.0 | 0.5483 | 15.707 | 958.3 | 0.5672 |
| 8 | 0.000 | | 0.5021 | 8.533 | 1026.2 | 0.5021 | 15.861 | 968.1 | 0.5228 |
| 9 | 0.000 | | 0.4613 | 8.869 | 1050.9 | 0.4613 | 16.532 | 992.5 | 0.4824 |
| 10 | 0.000 | | 0.4260 | 8.851 | 1049.6 | 0.4260 | 16.637 | 1001.6 | 0.4470 |
| 11 | 0.000 | | 0.3958 | 8.757 | 1042.6 | 0.3958 | 16.633 | 1008.3 | 0.4163 |
| 12 | 0.000 | | 0.3696 | 8.624 | 1032.8 | 0.3696 | 16.579 | 1014.3 | 0.3894 |
| 13 | 0.000 | | 0.3470 | 8.464 | 1021.2 | 0.3470 | 16.494 | 1020.0 | 0.3658 |
| 14 | 0.000 | | 0.3274 | 8.282 | 1008.1 | 0.3274 | 16.377 | 1024.9 | 0.3450 |
| 15 | 0.000 | | 0.3102 | 8.071 | 993.2 | 0.3102 | 16.218 | 1028.9 | 0.3266 |
| 16 | 0.000 | | 0.2951 | 7.822 | 975.9 | 0.2951 | 15.992 | 1030.7 | 0.3102 |
| 17 | 0.000 | | 0.2818 | 7.521 | 955.4 | 0.2818 | 15.661 | 1028.3 | 0.2955 |
| 18 | 0.000 | | 0.2702 | 7.150 | 930.8 | 0.2702 | 15.171 | 1019.3 | 0.2825 |
| 19 | 0.000 | | 0.2600 | 6.690 | 901.2 | 0.2600 | 14.453 | 999.9 | 0.2709 |
| 20 | 0.000 | | 0.2512 | 6.120 | 865.9 | 0.2512 | 13.434 | 967.1 | 0.2607 |
| 21 | 0.000 | | 0.2437 | 5.302 | 817.9 | 0.2437 | 11.826 | 912.2 | 0.2520 |
| 22 | 0.000 | | 0.2377 | 4.443 | 770.4 | 0.2377 | 9.982 | 848.4 | 0.2448 |
| 23 | 0.000 | | 0.2330 | 3.581 | 725.5 | 0.2330 | 8.004 | 781.7 | 0.2390 |
| 24 | 0.000 | | 0.2298 | 1.575 | 630.6 | 0.2298 | 3.576 | 654.5 | 0.2353 |
| 25 | 0.000 | | 0.2284 | 0.944 | 603.0 | 0.2284 | 2.090 | 614.3 | 0.2334 |
| Node No. | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 3.913 | 637.3 | 0.7396 | 4.669 | 636.3 | 0.7396 | 5.339 | 601.2 | 0.7396 |
| 2 | 13.306 | 866.0 | 0.7396 | 15.854 | 850.0 | 0.7396 | 18.118 | 707.8 | 0.7396 |
| 3 | 18.258 | 920.3 | 0.7377 | 21.396 | 874.9 | 0.7378 | 24.353 | 758.7 | 0.7396 |
| 4 | 20.787 | 958.1 | 0.7069 | 24.111 | 897.9 | 0.7078 | 27.519 | 758.7 | 0.7124 |
| 5 | 21.657 | 964.0 | 0.6647 | 25.011 | 901.7 | 0.6667 | 28.790 | 783.4 | 0.6751 |
| 6 | 21.828 | 958.8 | 0.6173 | 25.170 | 900.2 | 0.6206 | 29.278 | 806.0 | 0.6333 |
| 7 | 21.814 | 951.2 | 0.5699 | 25.140 | 898.2 | 0.5744 | 29.540 | 826.6 | 0.5909 |
| 8 | 21.894 | 945.2 | 0.5263 | 25.210 | 896.9 | 0.5316 | 29.875 | 845.8 | 0.5508 |
| 9 | 22.588 | 947.0 | 0.4868 | 25.939 | 901.3 | 0.4925 | 30.867 | 865.2 | 0.5131 |
| 10 | 22.629 | 941.8 | 0.4520 | 25.975 | 900.7 | 0.4579 | 31.023 | 874.3 | 0.4790 |
| 11 | 22.540 | 935.0 | 0.4218 | 25.876 | 899.4 | 0.4279 | 30.939 | 875.4 | 0.4483 |
| 12 | 22.390 | 927.3 | 0.3954 | 25.710 | 897.4 | 0.4017 | 30.718 | 871.3 | 0.4211 |
| 13 | 22.200 | 919.0 | 0.3722 | 25.503 | 895.3 | 0.3785 | 30.408 | 863.5 | 0.3968 |
| 14 | 21.969 | 910.1 | 0.3517 | 25.254 | 893.0 | 0.3580 | 30.018 | 853.0 | 0.3753 |
| 15 | 21.683 | 900.2 | 0.3336 | 24.944 | 890.0 | 0.3398 | 29.532 | 840.1 | 0.3560 |
| 16 | 21.313 | 889.2 | 0.3173 | 24.541 | 885.9 | 0.3234 | 28.909 | 824.3 | 0.3388 |
| 17 | 20.813 | 876.4 | 0.3028 | 23.991 | 879.8 | 0.3089 | 28.088 | 805.2 | 0.3234 |
| 18 | 20.134 | 862.4 | 0.2898 | 23.244 | 871.4 | 0.2959 | 27.035 | 784.2 | 0.3096 |
| 19 | 19.223 | 848.3 | 0.2784 | 22.249 | 861.3 | 0.2844 | 25.750 | 764.8 | 0.2976 |
| 20 | 17.983 | 832.5 | 0.2685 | 20.898 | 848.0 | 0.2744 | 24.155 | 748.9 | 0.2873 |
| 21 | 15.995 | 805.9 | 0.2601 | 18.701 | 823.7 | 0.2659 | 21.769 | 736.8 | 0.2792 |
| 22 | 13.609 | 769.6 | 0.2531 | 16.022 | 790.8 | 0.2589 | 18.748 | 715.4 | 0.2722 |
| 23 | 10.882 | 722.2 | 0.2472 | 12.850 | 743.3 | 0.2529 | 15.142 | 689.0 | 0.2664 |
| 24 | 4.837 | 629.0 | 0.2434 | 5.694 | 636.7 | 0.2490 | 6.706 | 616.5 | 0.2622 |
| 25 | 2.789 | 599.1 | 0.2412 | 3.260 | 602.9 | 0.2466 | 3.897 | 596.4 | 0.2613 |

Table 4-28. LS1 Burnup and TH Feedback Parameters Assembly C5 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.944 | 624.0 | 0.7396 | 7.483 | 660.2 | 0.7396 | 7.491 | 585.8 | 0.7396 |
| 2 | 20.087 | 788.9 | 0.7396 | 24.655 | 899.6 | 0.7396 | 24.678 | 635.8 | 0.7396 |
| 3 | 26.873 | 865.4 | 0.7392 | 32.244 | 909.7 | 0.7377 | 32.272 | 641.9 | 0.7377 |
| 4 | 30.350 | 856.9 | 0.7118 | 35.889 | 923.5 | 0.7092 | 35.920 | 650.7 | 0.7092 |
| 5 | 31.817 | 882.1 | 0.6748 | 37.348 | 922.8 | 0.6716 | 37.381 | 656.7 | 0.6717 |
| 6 | 32.428 | 898.3 | 0.6333 | 37.954 | 922.4 | 0.6301 | 37.990 | 665.8 | 0.6302 |
| 7 | 32.776 | 909.8 | 0.5915 | 38.343 | 925.8 | 0.5886 | 38.383 | 678.0 | 0.5887 |
| 8 | 33.189 | 920.3 | 0.5519 | 38.844 | 933.1 | 0.5493 | 38.887 | 687.3 | 0.5495 |
| 9 | 34.310 | 938.1 | 0.5144 | 40.134 | 947.3 | 0.5124 | 40.179 | 693.6 | 0.5125 |
| 10 | 34.648 | 963.8 | 0.4804 | 40.602 | 958.4 | 0.4786 | 40.650 | 703.2 | 0.4788 |
| 11 | 34.650 | 976.2 | 0.4495 | 40.769 | 972.6 | 0.4479 | 40.818 | 706.4 | 0.4481 |
| 12 | 34.618 | 1004.1 | 0.4222 | 40.903 | 987.2 | 0.4207 | 40.953 | 709.6 | 0.4208 |
| 13 | 35.001 | 1113.8 | 0.3985 | 41.382 | 995.8 | 0.3968 | 41.432 | 709.6 | 0.3970 |
| 14 | 34.770 | 1140.8 | 0.3759 | 41.339 | 1012.7 | 0.3743 | 41.389 | 709.6 | 0.3744 |
| 15 | 34.200 | 1126.5 | 0.3555 | 40.989 | 1033.0 | 0.3538 | 41.039 | 709.6 | 0.3540 |
| 16 | 33.409 | 1098.4 | 0.3375 | 40.409 | 1052.8 | 0.3355 | 40.459 | 709.6 | 0.3357 |
| 17 | 32.363 | 1062.0 | 0.3215 | 39.537 | 1069.5 | 0.3192 | 39.586 | 706.4 | 0.3194 |
| 18 | 31.045 | 1020.7 | 0.3074 | 38.316 | 1078.9 | 0.3046 | 38.364 | 703.1 | 0.3047 |
| 19 | 29.487 | 980.0 | 0.2951 | 36.745 | 1077.6 | 0.2917 | 36.792 | 700.0 | 0.2919 |
| 20 | 27.609 | 939.6 | 0.2847 | 34.690 | 1060.5 | 0.2806 | 34.735 | 693.6 | 0.2808 |
| 21 | 24.860 | 890.5 | 0.2763 | 31.459 | 1015.5 | 0.2714 | 31.501 | 684.2 | 0.2716 |
| 22 | 21.431 | 838.5 | 0.2692 | 27.323 | 953.1 | 0.2635 | 27.361 | 671.9 | 0.2637 |
| 23 | 17.299 | 776.1 | 0.2634 | 22.131 | 867.1 | 0.2571 | 22.161 | 647.8 | 0.2573 |
| 24 | 7.673 | 651.5 | 0.2591 | 9.934 | 690.6 | 0.2524 | 9.948 | 601.7 | 0.2526 |
| 25 | 4.441 | 611.8 | 0.2581 | 5.725 | 633.1 | 0.2512 | 5.733 | 585.0 | 0.2513 |

Table 4-29. LS1 Burnup and TH Feedback Parameters Assembly C6

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5. | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.775 | 650.4 | 0.7396 | 3.644 | 660.7 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.945 | 909.6 | 0.7396 | 12.304 | 964.5 | 0.7396 |
| 3 | 0.000 | | 0.7265 | 8.193 | 1001.8 | 0.7265 | 16.807 | 1065.4 | 0.7208 |
| 4 | 0.000 | Data | 0.6791 | 9.468 | 1096.6 | 0.6791 | 18.977 | 1139.2 | 0.6679 |
| 5 | 0.000 | Not | 0.6173 | 9.898 | 1130.7 | 0.6173 | 19.583 | 1154.3 | 0.6032 |
| 6 | 0.000 | Required | 0.5540 | 9.921 | 1132.6 | 0.5540 | 19.600 | 1153.8 | 0.5406 |
| 7 | 0.000 | | 0.4980 | 9.844 | 1126.4 | 0.4980 | 19.526 | 1154.1 | 0.4869 |
| 8 | 0.000 | | 0.4512 | 9.830 | 1125.3 | 0.4512 | 19.564 | 1158.6 | 0.4423 |
| 9 | 0.000 | | 0.4118 | 10.166 | 1152.5 | 0.4118 | 20.155 | 1181.0 | 0.4043 |
| 10 | 0.000 | | 0.3781 | 10.104 | 1147.4 | 0.3781 | 20.180 | 1188.7 | 0.3717 |
| 11 | 0.000 | | 0.3497 | 9.949 | 1134.8 | 0.3497 | 20.102 | 1195.6 | 0.3439 |
| 12 | 0.000 | | 0.3256 | 9.748 | 1118.7 | 0.3256 | 19.973 | 1202.1 | 0.3199 |
| 13 | 0.000 | | 0.3050 | 9.521 | 1100.8 | 0.3050 | 19.813 | 1208.1 | 0.2992 |
| 14 | 0.000 | | 0.2872 | 9.277 | 1081.8 | 0.2872 | 19.622 | 1212.9 | 0.2809 |
| 15 | 0.000 | | 0.2717 | 9.014 | 1061.8 | 0.2717 | 19.393 | 1216.0 | 0.2648 |
| 16 | 0.000 | | 0.2581 | 8.727 | 1040.4 | 0.2581 | 19.106 | 1216.0 | 0.2505 |
| 17 | 0.000 | | 0.2462 | 8.403 | 1016.8 | 0.2462 | 18.723 | 1210.6 | 0.2376 |
| 18 | 0.000 | | 0.2356 | 8.020 | 989.6 | 0.2356 | 18.181 | 1196.3 | 0.2261 |
| 19 | 0.000 | | 0.2263 | 7.549 | 957.3 | 0.2263 | 17.391 | 1168.0 | 0.2159 |
| 20 | 0.000 | | 0.2183 | 6.958 | 918.3 | 0.2183 | 16.254 | 1121.1 | 0.2071 |
| 21 | 0.000 | | 0.2115 | 6.083 | 863.7 | 0.2115 | 14.417 | 1043.3 | 0.1995 |
| 22 | 0.000 | | 0.2060 | 5.145 | 809.0 | 0.2060 | 12.257 | 952.7 | 0.1934 |
| 23 | 0.000 | | 0.2017 | 4.187 | 756.7 | 0.2017 | 9.893 | 858.8 | 0.1885 |
| 24 | 0.000 | | 0.1985 | 1.870 | 643.8 | 0.1985 | 4.508 | 685.9 | 0.1849 |
| 25 | 0.000 | | 0.1973 | 1.138 | 611.4 | 0.1973 | 2.698 | 633.5 | 0.1835 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.498 | 677.1 | 0.7396 | 6.526 | 665.5 | 0.7396 | 7.714 | 634.3 | 0.7396 |
| 2 | 18.484 | 1031.6 | 0.7396 | 21.713 | 946.4 | 0.7396 | 25.293 | 807.1 | 0.7396 |
| 3 | 24.499 | 1090.9 | 0.7188 | 28.442 | 979.5 | 0.7198 | 32.976 | 836.2 | 0.7227 |
| 4 | 27.190 | 1141.4 | 0.6651 | 31.410 | 1018.5 | 0.6677 | 36.602 | 885.3 | 0.6746 |
| 5 | 27.879 | 1149.7 | 0.6005 | 32.216 | 1035.5 | 0.6047 | 37.946 | 927.7 | 0.6163 |
| 6 | 27.822 | 1142.3 | 0.5383 | 32.215 | 1043.8 | 0.5437 | 38.377 | 963.3 | 0.5588 |
| 7 | 27.648 | 1132.4 | 0.4850 | 32.066 | 1047.5 | 0.4908 | 38.555 | 991.3 | 0.5075 |
| 8 | 27.604 | 1124.4 | 0.4409 | 32.029 | 1048.5 | 0.4466 | 38.779 | 1014.2 | 0.4634 |
| 9 | 28.213 | 1126.1 | 0.4035 | 32.669 | 1053.1 | 0.4091 | 39.696 | 1039.2 | 0.4253 |
| 10 | 28.158 | 1118.3 | 0.3715 | 32.598 | 1050.8 | 0.3770 | 39.764 | 1051.9 | 0.3927 |
| 11 | 27.984 | 1109.0 | 0.3442 | 32.405 | 1047.9 | 0.3495 | 39.552 | 1050.2 | 0.3642 |
| 12 | 27.743 | 1098.3 | 0.3206 | 32.143 | 1044.8 | 0.3259 | 39.181 | 1040.2 | 0.3393 |
| 13 | 27.456 | 1086.2 | 0.3002 | 31.833 | 1041.4 | 0.3054 | 38.711 | 1025.7 | 0.3176 |
| 14 | 27.116 | 1072.3 | 0.2823 | 31.467 | 1037.6 | 0.2873 | 38.146 | 1007.9 | 0.2986 |
| 15 | 26.701 | 1055.1 | 0.2664 | 31.022 | 1033.2 | 0.2713 | 37.458 | 986.7 | 0.2819 |
| 16 | 26.184 | 1034.3 | 0.2524 | 30.463 | 1027.1 | 0.2571 | 36.598 | 961.0 | 0.2670 |
| 17 | 25.517 | 1009.2 | 0.2398 | 29.739 | 1018.8 | 0.2444 | 35.501 | 930.3 | 0.2538 |
| 18 | 24.656 | 981.8 | 0.2286 | 28.805 | 1008.4 | 0.2331 | 34.138 | 896.2 | 0.2420 |
| 19 | 23.554 | 955.8 | 0.2187 | 27.617 | 996.2 | 0.2231 | 32.542 | 865.0 | 0.2316 |
| 20 | 22.096 | 929.8 | 0.2100 | 26.032 | 978.5 | 0.2144 | 30.573 | 836.7 | 0.2227 |
| 21 | 19.772 | 891.8 | 0.2027 | 23.435 | 941.6 | 0.2069 | 27.510 | 803.7 | 0.2152 |
| 22 | 16.954 | 843.0 | 0.1966 | 20.216 | 890.2 | 0.2008 | 23.735 | 766.0 | 0.2089 |
| 23 | 13.671 | 779.6 | 0.1918 | 16.343 | 819.8 | 0.1957 | 19.160 | 721.0 | 0.2039 |
| 24 | 6.210 | 653.3 | 0.1884 | 7.430 | 669.8 | 0.1922 | 8.728 | 632.1 | 0.2004 |
| 25 | 3.665 | 613.3 | 0.1868 | 4.356 | 622.0 | 0.1904 | 5.087 | 601.4 | 0.1984 |

Table 4-29. LS1 Burnup and TH Feedback Parameters Assembly C6 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 8.463 | 640.0 | 0.7396 | 9.892 | 652.6 | 0.7396 |
| 2 | 27.509 | 822.4 | 0.7396 | 31.408 | 841.0 | 0.7396 |
| 3 | 35.817 | 858.2 | 0.7239 | 40.394 | 847.7 | 0.7255 |
| 4 | 39.879 | 915.3 | 0.6776 | 44.703 | 866.5 | 0.6812 |
| 5 | 41.532 | 958.2 | 0.6211 | 46.477 | 875.9 | 0.6271 |
| 6 | 42.153 | 985.7 | 0.5647 | 47.219 | 885.4 | 0.5729 |
| 7 | 42.440 | 1001.8 | 0.5138 | 47.658 | 897.4 | 0.5236 |
| 8 | 42.739 | 1013.1 | 0.4695 | 48.137 | 911.9 | 0.4804 |
| 9 | 43.756 | 1028.4 | 0.4309 | 49.387 | 931.1 | 0.4423 |
| 10 | 43.852 | 1032.7 | 0.3978 | 49.687 | 948.2 | 0.4094 |
| 11 | 43.643 | 1033.1 | 0.3690 | 49.673 | 964.9 | 0.3806 |
| 12 | 43.269 | 1032.7 | 0.3439 | 49.493 | 981.8 | 0.3554 |
| 13 | 42.797 | 1032.4 | 0.3220 | 49.216 | 999.2 | 0.3333 |
| 14 | 42.233 | 1032.5 | 0.3028 | 48.842 | 1016.4 | 0.3137 |
| 15 | 41.538 | 1031.4 | 0.2858 | 48.329 | 1033.2 | 0.2965 |
| 16 | 40.633 | 1024.5 | 0.2708 | 47.590 | 1048.7 | 0.2811 |
| 17 | 39.420 | 1006.9 | 0.2573 | 46.509 | 1061.3 | 0.2673 |
| 18 | 37.868 | 979.0 | 0.2453 | 45.022 | 1067.5 | 0.2550 |
| 19 | 36.046 | 946.6 | 0.2349 | 43.160 | 1063.7 | 0.2440 |
| 20 | 33.832 | 912.9 | 0.2256 | 40.748 | 1044.9 | 0.2344 |
| 21 | 30.453 | 871.2 | 0.2181 | 36.899 | 1001.6 | 0.2261 |
| 22 | 26.297 | 823.7 | 0.2119 | 32.043 | 940.7 | 0.2193 |
| 23 | 21.226 | 765.8 | 0.2067 | 25.912 | 855.9 | 0.2136 |
| 24 | 9.703 | 652.3 | 0.2034 | 11.965 | 690.6 | 0.2102 |
| 25 | 5.645 | 613.1 | 0.2012 | 6.934 | 633.4 | 0.2079 |

Table 4-30. LS1 Burnup and TH Feedback Parameters Assembly C7

| Node No. | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|-------------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.791 | 651.3 | 0.7396 | 3.407 | 646.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.959 | 910.6 | 0.7396 | 11.467 | 898.8 | 0.7396 |
| 3 | 0.000 | | 0.7266 | 8.169 | 1000.1 | 0.7266 | 15.793 | 989.6 | 0.7262 |
| 4 | 0.000 | Data | 0.6798 | 9.407 | 1091.9 | 0.6798 | 17.993 | 1063.1 | 0.6791 |
| 5 | 0.000 | Not | 0.6185 | 9.823 | 1124.7 | 0.6185 | 18.695 | 1086.1 | 0.6187 |
| 6 | 0.000 | Required | 0.5554 | 9.850 | 1126.9 | 0.5554 | 18.788 | 1091.5 | 0.5576 |
| 7 | 0.000 | | 0.4993 | 9.789 | 1122.0 | 0.4993 | 18.776 | 1095.5 | 0.5035 |
| 8 | 0.000 | | 0.4525 | 9.796 | 1122.5 | 0.4525 | 18.872 | 1102.8 | 0.4579 |
| 9 | 0.000 | | 0.4129 | 10.157 | 1151.8 | 0.4129 | 19.512 | 1126.1 | 0.4190 |
| 10 | 0.000 | | 0.3790 | 10.121 | 1148.8 | 0.3790 | 19.587 | 1135.5 | 0.3855 |
| 11 | 0.000 | | 0.3502 | 9.994 | 1138.5 | 0.3502 | 19.559 | 1144.0 | 0.3568 |
| 12 | 0.000 | | 0.3258 | 9.817 | 1124.2 | 0.3258 | 19.472 | 1151.7 | 0.3321 |
| 13 | 0.000 | | 0.3050 | 9.608 | 1107.6 | 0.3050 | 19.350 | 1159.3 | 0.3106 |
| 14 | 0.000 | | 0.2870 | 9.376 | 1089.5 | 0.2870 | 19.195 | 1166.0 | 0.2918 |
| 15 | 0.000 | | 0.2713 | 9.121 | 1069.9 | 0.2713 | 19.005 | 1171.7 | 0.2751 |
| 16 | 0.000 | | 0.2575 | 8.838 | 1048.6 | 0.2575 | 18.763 | 1175.3 | 0.2602 |
| 17 | 0.000 | | 0.2454 | 8.517 | 1025.0 | 0.2454 | 18.430 | 1174.2 | 0.2469 |
| 18 | 0.000 | | 0.2347 | 8.138 | 997.9 | 0.2347 | 17.941 | 1164.6 | 0.2351 |
| 19 | 0.000 | | 0.2254 | 7.670 | 965.5 | 0.2254 | 17.194 | 1140.5 | 0.2246 |
| 20 | 0.000 | | 0.2172 | 7.076 | 926.0 | 0.2172 | 16.083 | 1097.1 | 0.2154 |
| 21 | 0.000 | | 0.2103 | 6.190 | 870.2 | 0.2103 | 14.265 | 1023.4 | 0.2075 |
| 22 | 0.000 | | 0.2047 | 5.244 | 814.6 | 0.2047 | 12.134 | 937.2 | 0.2011 |
| 23 | 0.000 | | 0.2003 | 4.289 | 762.1 | 0.2003 | 9.828 | 848.4 | 0.1960 |
| 24 | 0.000 | | 0.1971 | 1.934 | 646.7 | 0.1971 | 4.500 | 682.2 | 0.1925 |
| 25 | 0.000 | | 0.1958 | 1.182 | 613.3 | 0.1958 | 2.694 | 631.3 | 0.1909 |
| Node No. | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.150 | 669.6 | 0.7396 | 5.960 | 642.0 | 0.7396 | 7.123 | 632.7 | 0.7396 |
| 2 | 17.343 | 1002.0 | 0.7396 | 19.928 | 855.0 | 0.7396 | 23.518 | 807.9 | 0.7396 |
| 3 | 23.082 | 1053.4 | 0.7227 | 26.242 | 877.6 | 0.7240 | 30.811 | 838.8 | 0.7265 |
| 4 | 25.721 | 1094.3 | 0.6739 | 29.092 | 903.9 | 0.6772 | 34.313 | 887.5 | 0.6831 |
| 5 | 26.474 | 1099.1 | 0.6134 | 29.934 | 915.2 | 0.6192 | 35.669 | 928.1 | 0.6291 |
| 6 | 26.521 | 1094.8 | 0.5534 | 30.029 | 921.4 | 0.5614 | 36.167 | 961.3 | 0.5742 |
| 7 | 26.504 | 1094.3 | 0.5010 | 30.038 | 924.7 | 0.5105 | 36.481 | 987.3 | 0.5245 |
| 8 | 26.567 | 1091.2 | 0.4566 | 30.117 | 926.8 | 0.4668 | 36.818 | 1009.8 | 0.4807 |
| 9 | 27.242 | 1094.5 | 0.4185 | 30.836 | 932.6 | 0.4288 | 37.818 | 1035.1 | 0.4422 |
| 10 | 27.257 | 1088.8 | 0.3857 | 30.853 | 932.8 | 0.3961 | 37.978 | 1048.2 | 0.4090 |
| 11 | 27.114 | 1078.0 | 0.3575 | 30.707 | 932.4 | 0.3677 | 37.823 | 1047.3 | 0.3798 |
| 12 | 26.880 | 1064.3 | 0.3332 | 30.467 | 931.7 | 0.3433 | 37.481 | 1038.0 | 0.3543 |
| 13 | 26.591 | 1049.0 | 0.3121 | 30.170 | 930.6 | 0.3220 | 37.029 | 1023.9 | 0.3320 |
| 14 | 26.257 | 1032.9 | 0.2936 | 29.825 | 929.2 | 0.3033 | 36.486 | 1006.3 | 0.3124 |
| 15 | 25.871 | 1015.5 | 0.2774 | 29.427 | 927.6 | 0.2869 | 35.842 | 984.9 | 0.2953 |
| 16 | 25.412 | 996.7 | 0.2629 | 28.974 | 928.4 | 0.2724 | 35.081 | 958.7 | 0.2802 |
| 17 | 24.875 | 979.3 | 0.2503 | 28.570 | 945.9 | 0.2604 | 34.273 | 925.5 | 0.2675 |
| 18 | 24.324 | 974.1 | 0.2398 | 28.441 | 1003.8 | 0.2514 | 33.623 | 884.5 | 0.2576 |
| 19 | 23.348 | 955.0 | 0.2298 | 27.499 | 1008.7 | 0.2413 | 32.259 | 852.7 | 0.2471 |
| 20 | 21.920 | 929.4 | 0.2207 | 25.921 | 987.5 | 0.2316 | 30.306 | 825.5 | 0.2375 |
| 21 | 19.591 | 889.6 | 0.2129 | 23.300 | 947.8 | 0.2235 | 27.238 | 794.2 | 0.2294 |
| 22 | 16.779 | 839.3 | 0.2065 | 20.071 | 893.9 | 0.2168 | 23.481 | 758.8 | 0.2228 |
| 23 | 13.530 | 774.6 | 0.2012 | 16.199 | 819.5 | 0.2110 | 18.938 | 716.2 | 0.2171 |
| 24 | 6.137 | 649.7 | 0.1975 | 7.324 | 666.8 | 0.2069 | 8.584 | 630.0 | 0.2131 |
| 25 | 3.611 | 610.6 | 0.1956 | 4.268 | 619.0 | 0.2043 | 4.979 | 600.3 | 0.2105 |

Table 4-30. LS1 Burnup and TH Feedback Parameters Assembly C7 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 7.898 | 642.9 | 0.7396 | 9.367 | 655.3 | 0.7396 |
| 2 | 25.862 | 840.3 | 0.7396 | 29.963 | 858.3 | 0.7396 |
| 3 | 33.821 | 879.9 | 0.7274 | 38.651 | 867.0 | 0.7284 |
| 4 | 37.762 | 938.9 | 0.6851 | 42.817 | 884.5 | 0.6877 |
| 5 | 39.408 | 980.3 | 0.6323 | 44.542 | 890.7 | 0.6367 |
| 6 | 40.078 | 1005.7 | 0.5782 | 45.280 | 896.1 | 0.5844 |
| 7 | 40.484 | 1019.6 | 0.5284 | 45.786 | 904.2 | 0.5360 |
| 8 | 40.891 | 1030.3 | 0.4842 | 46.334 | 915.6 | 0.4928 |
| 9 | 41.998 | 1047.0 | 0.4453 | 47.650 | 932.8 | 0.4544 |
| 10 | 42.195 | 1052.8 | 0.4118 | 48.026 | 947.9 | 0.4210 |
| 11 | 42.061 | 1056.1 | 0.3824 | 48.075 | 963.5 | 0.3917 |
| 12 | 41.739 | 1059.3 | 0.3566 | 47.944 | 980.2 | 0.3660 |
| 13 | 41.298 | 1061.0 | 0.3341 | 47.701 | 997.7 | 0.3433 |
| 14 | 40.742 | 1058.9 | 0.3144 | 47.348 | 1016.1 | 0.3234 |
| 15 | 40.040 | 1049.8 | 0.2971 | 46.851 | 1035.0 | 0.3058 |
| 16 | 39.165 | 1032.0 | 0.2818 | 46.164 | 1052.7 | 0.2902 |
| 17 | 38.170 | 1003.6 | 0.2688 | 45.300 | 1065.2 | 0.2767 |
| 18 | 37.245 | 963.4 | 0.2586 | 44.378 | 1065.5 | 0.2656 |
| 19 | 35.637 | 929.1 | 0.2481 | 42.723 | 1061.0 | 0.2545 |
| 20 | 33.444 | 896.7 | 0.2384 | 40.344 | 1043.4 | 0.2444 |
| 21 | 30.073 | 857.4 | 0.2304 | 36.515 | 1001.2 | 0.2358 |
| 22 | 25.954 | 812.9 | 0.2238 | 31.706 | 941.2 | 0.2287 |
| 23 | 20.943 | 758.9 | 0.2181 | 25.647 | 857.3 | 0.2226 |
| 24 | 9.532 | 649.7 | 0.2143 | 11.803 | 691.2 | 0.2187 |
| 25 | 5.525 | 612.0 | 0.2117 | 6.825 | 634.0 | 0.2160 |

Table 4-31. LS1 Burnup and TH Feedback Parameters Assembly C8

| Node No. | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|-------------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.788 | 651.1 | 0.7396 | 3.262 | 638.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.921 | 907.9 | 0.7396 | 10.917 | 861.3 | 0.7396 |
| 3 | 0.000 | | 0.7271 | 8.091 | 994.6 | 0.7271 | 15.063 | 942.9 | 0.7291 |
| 4 | 0.000 | Data | 0.6812 | 9.308 | 1084.2 | 0.6812 | 17.239 | 1012.5 | 0.6857 |
| 5 | 0.000 | Not | 0.6210 | 9.714 | 1116.0 | 0.6210 | 17.983 | 1038.3 | 0.6288 |
| 6 | 0.000 | Required | 0.5588 | 9.736 | 1117.7 | 0.5588 | 18.128 | 1047.9 | 0.5698 |
| 7 | 0.000 | | 0.5032 | 9.675 | 1112.9 | 0.5032 | 18.153 | 1054.6 | 0.5164 |
| 8 | 0.000 | | 0.4564 | 9.680 | 1113.3 | 0.4564 | 18.276 | 1063.9 | 0.4708 |
| 9 | 0.000 | | 0.4169 | 10.034 | 1141.7 | 0.4169 | 18.928 | 1087.9 | 0.4314 |
| 10 | 0.000 | | 0.3829 | 10.001 | 1139.0 | 0.3829 | 19.016 | 1097.8 | 0.3975 |
| 11 | 0.000 | | 0.3540 | 9.882 | 1129.4 | 0.3540 | 19.000 | 1106.3 | 0.3683 |
| 12 | 0.000 | | 0.3295 | 9.714 | 1116.0 | 0.3295 | 18.927 | 1114.2 | 0.3431 |
| 13 | 0.000 | | 0.3085 | 9.514 | 1100.2 | 0.3085 | 18.816 | 1121.6 | 0.3213 |
| 14 | 0.000 | | 0.2903 | 9.288 | 1082.7 | 0.2903 | 18.668 | 1128.2 | 0.3021 |
| 15 | 0.000 | | 0.2744 | 9.033 | 1063.2 | 0.2744 | 18.478 | 1133.7 | 0.2851 |
| 16 | 0.000 | | 0.2606 | 8.741 | 1041.4 | 0.2606 | 18.225 | 1137.1 | 0.2700 |
| 17 | 0.000 | | 0.2484 | 8.400 | 1016.6 | 0.2484 | 17.869 | 1135.8 | 0.2565 |
| 18 | 0.000 | | 0.2377 | 7.988 | 987.4 | 0.2377 | 17.344 | 1126.2 | 0.2444 |
| 19 | 0.000 | | 0.2285 | 7.480 | 952.6 | 0.2285 | 16.560 | 1103.2 | 0.2338 |
| 20 | 0.000 | | 0.2204 | 6.849 | 911.3 | 0.2204 | 15.424 | 1062.3 | 0.2245 |
| 21 | 0.000 | | 0.2136 | 5.943 | 855.3 | 0.2136 | 13.610 | 992.8 | 0.2166 |
| 22 | 0.000 | | 0.2081 | 4.997 | 800.7 | 0.2081 | 11.518 | 912.0 | 0.2100 |
| 23 | 0.000 | | 0.2037 | 4.062 | 750.2 | 0.2037 | 9.291 | 829.3 | 0.2048 |
| 24 | 0.000 | | 0.2007 | 1.819 | 641.5 | 0.2007 | 4.232 | 674.6 | 0.2012 |
| 25 | 0.000 | | 0.1995 | 1.108 | 610.1 | 0.1995 | 2.520 | 626.6 | 0.1996 |
| Node No. | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.625 | 644.5 | 0.7396 | 5.414 | 639.8 | 0.7396 | 6.257 | 612.1 | 0.7396 |
| 2 | 15.657 | 898.5 | 0.7396 | 18.264 | 858.0 | 0.7396 | 20.939 | 737.6 | 0.7396 |
| 3 | 21.140 | 948.7 | 0.7302 | 24.362 | 885.2 | 0.7312 | 27.631 | 749.7 | 0.7337 |
| 4 | 23.848 | 993.2 | 0.6890 | 27.288 | 912.6 | 0.6917 | 30.863 | 769.7 | 0.6977 |
| 5 | 24.741 | 1006.1 | 0.6352 | 28.244 | 920.7 | 0.6401 | 32.084 | 787.5 | 0.6507 |
| 6 | 24.882 | 1005.7 | 0.5787 | 28.397 | 922.3 | 0.5857 | 32.502 | 805.8 | 0.6010 |
| 7 | 24.847 | 1000.5 | 0.5266 | 28.356 | 921.5 | 0.5349 | 32.709 | 823.2 | 0.5543 |
| 8 | 24.915 | 995.8 | 0.4814 | 28.417 | 920.6 | 0.4904 | 32.985 | 838.7 | 0.5124 |
| 9 | 25.595 | 998.2 | 0.4422 | 29.133 | 925.3 | 0.4513 | 33.920 | 854.7 | 0.4745 |
| 10 | 25.608 | 991.8 | 0.4084 | 29.137 | 924.1 | 0.4176 | 34.047 | 863.9 | 0.4411 |
| 11 | 25.481 | 982.3 | 0.3793 | 28.990 | 921.5 | 0.3886 | 33.971 | 869.2 | 0.4117 |
| 12 | 25.276 | 971.2 | 0.3542 | 28.765 | 918.9 | 0.3634 | 33.770 | 871.0 | 0.3859 |
| 13 | 25.021 | 959.2 | 0.3322 | 28.490 | 916.4 | 0.3414 | 33.479 | 869.8 | 0.3631 |
| 14 | 24.719 | 946.6 | 0.3130 | 28.166 | 913.5 | 0.3220 | 33.106 | 866.1 | 0.3429 |
| 15 | 24.360 | 933.0 | 0.2960 | 27.782 | 910.3 | 0.3048 | 32.639 | 859.9 | 0.3249 |
| 16 | 23.917 | 917.9 | 0.2808 | 27.305 | 906.0 | 0.2895 | 32.051 | 851.7 | 0.3088 |
| 17 | 23.342 | 900.8 | 0.2673 | 26.679 | 899.6 | 0.2758 | 31.284 | 841.4 | 0.2943 |
| 18 | 22.573 | 882.2 | 0.2552 | 25.836 | 890.3 | 0.2637 | 30.272 | 829.2 | 0.2815 |
| 19 | 21.550 | 864.4 | 0.2447 | 24.724 | 879.3 | 0.2530 | 28.960 | 814.9 | 0.2704 |
| 20 | 20.156 | 845.5 | 0.2356 | 23.212 | 864.9 | 0.2439 | 27.203 | 797.9 | 0.2607 |
| 21 | 17.935 | 816.7 | 0.2279 | 20.772 | 838.9 | 0.2362 | 24.392 | 772.7 | 0.2529 |
| 22 | 15.283 | 778.7 | 0.2216 | 17.807 | 803.1 | 0.2299 | 20.960 | 742.2 | 0.2463 |
| 23 | 12.275 | 728.7 | 0.2162 | 14.328 | 752.2 | 0.2243 | 16.821 | 701.1 | 0.2403 |
| 24 | 5.547 | 632.0 | 0.2124 | 6.449 | 640.7 | 0.2203 | 7.498 | 618.5 | 0.2353 |
| 25 | 3.247 | 600.6 | 0.2101 | 3.741 | 604.9 | 0.2176 | 4.286 | 591.5 | 0.2313 |

Table 4-31. LS1 Burnup and TH Feedback Parameters Assembly C8 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.626 | 598.6 | 0.7396 | 7.116 | 590.8 | 0.7396 | 7.124 | 585.8 | 0.7396 |
| 2 | 22.066 | 683.4 | 0.7396 | 23.498 | 652.8 | 0.7396 | 23.521 | 635.8 | 0.7396 |
| 3 | 28.991 | 690.3 | 0.7347 | 30.653 | 654.8 | 0.7359 | 30.680 | 638.9 | 0.7359 |
| 4 | 32.349 | 703.3 | 0.7002 | 34.098 | 659.9 | 0.7030 | 34.128 | 647.8 | 0.7031 |
| 5 | 33.689 | 715.7 | 0.6554 | 35.530 | 665.3 | 0.6605 | 35.562 | 653.7 | 0.6606 |
| 6 | 34.233 | 729.0 | 0.6082 | 36.200 | 672.8 | 0.6160 | 36.235 | 662.7 | 0.6161 |
| 7 | 34.563 | 742.3 | 0.5636 | 36.684 | 682.0 | 0.5743 | 36.722 | 671.9 | 0.5744 |
| 8 | 34.952 | 754.7 | 0.5235 | 37.247 | 692.6 | 0.5370 | 37.288 | 681.1 | 0.5371 |
| 9 | 36.006 | 768.0 | 0.4868 | 38.514 | 705.8 | 0.5027 | 38.558 | 690.5 | 0.5029 |
| 10 | 36.216 | 777.4 | 0.4544 | 38.919 | 718.1 | 0.4726 | 38.965 | 696.8 | 0.4728 |
| 11 | 36.208 | 785.2 | 0.4255 | 39.109 | 730.8 | 0.4459 | 39.157 | 703.2 | 0.4461 |
| 12 | 36.065 | 792.0 | 0.3999 | 39.168 | 744.0 | 0.4222 | 39.216 | 703.2 | 0.4223 |
| 13 | 35.825 | 797.9 | 0.3771 | 39.129 | 757.3 | 0.4009 | 39.178 | 706.4 | 0.4010 |
| 14 | 35.497 | 803.2 | 0.3568 | 38.999 | 770.7 | 0.3817 | 39.048 | 706.4 | 0.3818 |
| 15 | 35.068 | 807.7 | 0.3386 | 38.762 | 783.9 | 0.3643 | 38.811 | 706.4 | 0.3644 |
| 16 | 34.505 | 810.7 | 0.3223 | 38.382 | 796.7 | 0.3485 | 38.431 | 706.4 | 0.3486 |
| 17 | 33.750 | 812.1 | 0.3077 | 37.793 | 808.5 | 0.3342 | 37.841 | 703.2 | 0.3343 |
| 18 | 32.734 | 811.6 | 0.2948 | 36.913 | 818.3 | 0.3213 | 36.961 | 703.2 | 0.3215 |
| 19 | 31.396 | 808.5 | 0.2834 | 35.658 | 824.3 | 0.3099 | 35.704 | 696.8 | 0.3100 |
| 20 | 29.579 | 801.4 | 0.2737 | 33.838 | 824.1 | 0.3000 | 33.883 | 693.6 | 0.3001 |
| 21 | 26.624 | 784.7 | 0.2657 | 30.704 | 811.2 | 0.2919 | 30.746 | 684.2 | 0.2920 |
| 22 | 22.972 | 759.7 | 0.2593 | 26.720 | 787.7 | 0.2853 | 26.758 | 671.9 | 0.2855 |
| 23 | 18.454 | 718.6 | 0.2529 | 21.545 | 743.2 | 0.2785 | 21.576 | 650.7 | 0.2786 |
| 24 | 8.197 | 626.1 | 0.2474 | 9.539 | 636.4 | 0.2720 | 9.553 | 601.7 | 0.2721 |
| 25 | 4.644 | 594.9 | 0.2423 | 5.331 | 600.0 | 0.2650 | 5.338 | 582.2 | 0.2652 |

Table 4-32. LS1 Burnup and TH Feedback Parameters Assembly C9

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.646 | 643.5 | 0.7396 | 2.955 | 629.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.521 | 879.6 | 0.7396 | 10.014 | 825.9 | 0.7396 |
| 3 | 0.000 | | 0.7310 | 7.663 | 965.0 | 0.7310 | 14.107 | 906.8 | 0.7333 |
| 4 | 0.000 | Data | 0.6895 | 8.899 | 1053.2 | 0.6895 | 16.366 | 978.1 | 0.6950 |
| 5 | 0.000 | Not | 0.6341 | 9.309 | 1084.3 | 0.6341 | 17.143 | 1005.2 | 0.6433 |
| 6 | 0.000 | Required | 0.5751 | 9.314 | 1084.7 | 0.5751 | 17.261 | 1013.7 | 0.5879 |
| 7 | 0.000 | | 0.5206 | 9.221 | 1077.5 | 0.5206 | 17.223 | 1017.8 | 0.5358 |
| 8 | 0.000 | | 0.4740 | 9.201 | 1076.0 | 0.4740 | 17.294 | 1024.8 | 0.4904 |
| 9 | 0.000 | | 0.4340 | 9.529 | 1101.4 | 0.4340 | 17.909 | 1046.9 | 0.4506 |
| 10 | 0.000 | | 0.3997 | 9.486 | 1098.0 | 0.3997 | 17.962 | 1054.4 | 0.4163 |
| 11 | 0.000 | | 0.3705 | 9.359 | 1088.2 | 0.3705 | 17.907 | 1060.1 | 0.3867 |
| 12 | 0.000 | | 0.3455 | 9.190 | 1075.2 | 0.3455 | 17.801 | 1065.1 | 0.3611 |
| 13 | 0.000 | | 0.3239 | 8.995 | 1060.4 | 0.3239 | 17.667 | 1070.0 | 0.3387 |
| 14 | 0.000 | | 0.3053 | 8.778 | 1044.2 | 0.3053 | 17.504 | 1074.3 | 0.3192 |
| 15 | 0.000 | | 0.2891 | 8.532 | 1026.1 | 0.2891 | 17.298 | 1077.5 | 0.3018 |
| 16 | 0.000 | | 0.2749 | 8.247 | 1005.6 | 0.2749 | 17.025 | 1078.5 | 0.2863 |
| 17 | 0.000 | | 0.2623 | 7.907 | 981.8 | 0.2623 | 16.642 | 1075.0 | 0.2725 |
| 18 | 0.000 | | 0.2514 | 7.491 | 953.4 | 0.2514 | 16.089 | 1064.1 | 0.2603 |
| 19 | 0.000 | | 0.2419 | 6.982 | 919.9 | 0.2419 | 15.290 | 1041.3 | 0.2495 |
| 20 | 0.000 | | 0.2337 | 6.360 | 880.6 | 0.2337 | 14.168 | 1003.2 | 0.2400 |
| 21 | 0.000 | | 0.2267 | 5.488 | 828.5 | 0.2267 | 12.427 | 940.6 | 0.2319 |
| 22 | 0.000 | | 0.2211 | 4.580 | 777.7 | 0.2211 | 10.441 | 868.7 | 0.2252 |
| 23 | 0.000 | | 0.2168 | 3.685 | 730.8 | 0.2168 | 8.345 | 795.4 | 0.2200 |
| 24 | 0.000 | | 0.2138 | 1.629 | 633.0 | 0.2138 | 3.744 | 660.0 | 0.2165 |
| 25 | 0.000 | | 0.2126 | 0.984 | 604.7 | 0.2126 | 2.206 | 617.8 | 0.2147 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.725 | 671.4 | 0.7396 | 5.849 | 676.0 | 0.7396 | 7.193 | 644.6 | 0.7396 |
| 2 | 16.106 | 1023.0 | 0.7396 | 19.739 | 1008.3 | 0.7396 | 23.918 | 856.2 | 0.7396 |
| 3 | 21.868 | 1097.4 | 0.7272 | 26.278 | 1046.3 | 0.7257 | 31.427 | 882.0 | 0.7274 |
| 4 | 24.669 | 1150.4 | 0.6836 | 29.302 | 1079.9 | 0.6812 | 34.953 | 921.3 | 0.6854 |
| 5 | 25.483 | 1154.1 | 0.6280 | 30.163 | 1087.1 | 0.6251 | 36.170 | 950.4 | 0.6322 |
| 6 | 25.479 | 1141.9 | 0.5706 | 30.164 | 1087.9 | 0.5676 | 36.434 | 972.5 | 0.5772 |
| 7 | 25.302 | 1128.2 | 0.5186 | 29.982 | 1087.1 | 0.5157 | 36.430 | 987.7 | 0.5264 |
| 8 | 25.249 | 1116.1 | 0.4742 | 29.910 | 1084.2 | 0.4714 | 36.473 | 997.7 | 0.4821 |
| 9 | 25.839 | 1113.7 | 0.4361 | 30.513 | 1086.2 | 0.4335 | 37.194 | 1008.1 | 0.4438 |
| 10 | 25.769 | 1101.8 | 0.4032 | 30.410 | 1081.1 | 0.4009 | 37.081 | 1007.2 | 0.4106 |
| 11 | 25.578 | 1088.9 | 0.3748 | 30.188 | 1076.4 | 0.3728 | 36.791 | 1001.2 | 0.3819 |
| 12 | 25.323 | 1074.9 | 0.3504 | 29.905 | 1072.1 | 0.3485 | 36.395 | 991.4 | 0.3571 |
| 13 | 25.028 | 1060.0 | 0.3291 | 29.584 | 1068.2 | 0.3274 | 35.927 | 978.7 | 0.3355 |
| 14 | 24.691 | 1044.1 | 0.3104 | 29.220 | 1064.1 | 0.3088 | 35.384 | 963.5 | 0.3164 |
| 15 | 24.295 | 1027.1 | 0.2939 | 28.792 | 1059.3 | 0.2923 | 34.744 | 945.8 | 0.2996 |
| 16 | 23.801 | 1007.6 | 0.2793 | 28.258 | 1053.3 | 0.2777 | 33.960 | 925.4 | 0.2847 |
| 17 | 23.159 | 985.4 | 0.2662 | 27.556 | 1044.4 | 0.2645 | 32.965 | 902.1 | 0.2714 |
| 18 | 22.328 | 962.1 | 0.2545 | 26.636 | 1031.3 | 0.2529 | 31.734 | 878.1 | 0.2596 |
| 19 | 21.265 | 940.5 | 0.2441 | 25.447 | 1013.1 | 0.2424 | 30.262 | 856.8 | 0.2494 |
| 20 | 19.872 | 918.8 | 0.2349 | 23.872 | 987.4 | 0.2331 | 28.356 | 832.6 | 0.2402 |
| 21 | 17.665 | 882.9 | 0.2270 | 21.339 | 943.1 | 0.2251 | 25.367 | 800.4 | 0.2322 |
| 22 | 15.007 | 833.7 | 0.2204 | 18.242 | 886.8 | 0.2183 | 21.718 | 763.2 | 0.2255 |
| 23 | 11.972 | 769.6 | 0.2152 | 14.598 | 814.6 | 0.2131 | 17.347 | 716.8 | 0.2201 |
| 24 | 5.360 | 648.5 | 0.2119 | 6.536 | 665.7 | 0.2097 | 7.733 | 626.5 | 0.2166 |
| 25 | 3.126 | 610.8 | 0.2104 | 3.797 | 620.2 | 0.2081 | 4.445 | 597.0 | 0.2145 |

Table 4-32. LS1 Burnup and TH Feedback Parameters Assembly C9 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 7.856 | 630.4 | 0.7396 | 8.740 | 616.1 | 0.7396 | 8.748 | 585.8 | 0.7396 |
| 2 | 25.893 | 789.7 | 0.7396 | 28.372 | 727.8 | 0.7396 | 28.395 | 635.8 | 0.7396 |
| 3 | 33.862 | 808.4 | 0.7286 | 36.766 | 731.0 | 0.7304 | 36.794 | 641.9 | 0.7304 |
| 4 | 37.660 | 841.4 | 0.6882 | 40.749 | 743.1 | 0.6922 | 40.778 | 644.8 | 0.6922 |
| 5 | 39.087 | 867.9 | 0.6370 | 42.348 | 754.4 | 0.6439 | 42.381 | 656.7 | 0.644 |
| 6 | 39.520 | 889.8 | 0.5838 | 42.983 | 768.0 | 0.5939 | 43.017 | 659.7 | 0.594 |
| 7 | 39.645 | 906.9 | 0.5342 | 43.337 | 783.8 | 0.5472 | 43.375 | 671.9 | 0.5474 |
| 8 | 39.788 | 920.5 | 0.4904 | 43.725 | 800.9 | 0.5059 | 43.765 | 678.0 | 0.5061 |
| 9 | 40.618 | 935.5 | 0.4520 | 44.834 | 821.0 | 0.4692 | 44.876 | 684.2 | 0.4693 |
| 10 | 40.559 | 943.0 | 0.4186 | 45.014 | 838.6 | 0.4370 | 45.059 | 693.6 | 0.4371 |
| 11 | 40.297 | 946.9 | 0.3896 | 44.978 | 855.6 | 0.4087 | 45.024 | 696.8 | 0.4089 |
| 12 | 39.921 | 949.7 | 0.3645 | 44.829 | 873.0 | 0.3839 | 44.877 | 703.2 | 0.3841 |
| 13 | 39.468 | 951.8 | 0.3426 | 44.649 | 894.5 | 0.3623 | 44.697 | 703.2 | 0.3625 |
| 14 | 38.934 | 953.1 | 0.3232 | 44.326 | 911.4 | 0.3427 | 44.374 | 703.2 | 0.3429 |
| 15 | 38.287 | 952.1 | 0.3061 | 43.856 | 926.0 | 0.3252 | 43.904 | 703.2 | 0.3253 |
| 16 | 37.469 | 947.3 | 0.2910 | 43.193 | 938.9 | 0.3095 | 43.241 | 703.2 | 0.3097 |
| 17 | 36.401 | 937.1 | 0.2773 | 42.249 | 949.3 | 0.2955 | 42.296 | 700.0 | 0.2956 |
| 18 | 35.058 | 921.7 | 0.2653 | 40.975 | 955.2 | 0.2829 | 41.021 | 696.8 | 0.2830 |
| 19 | 33.441 | 902.1 | 0.2548 | 39.339 | 953.6 | 0.2718 | 39.384 | 693.6 | 0.2720 |
| 20 | 31.362 | 879.4 | 0.2454 | 37.121 | 941.8 | 0.2618 | 37.164 | 687.4 | 0.2619 |
| 21 | 28.108 | 845.7 | 0.2373 | 33.501 | 911.5 | 0.2531 | 33.541 | 678.0 | 0.2533 |
| 22 | 24.123 | 804.9 | 0.2306 | 28.954 | 867.0 | 0.2460 | 28.989 | 662.7 | 0.2461 |
| 23 | 19.278 | 750.7 | 0.2250 | 23.208 | 800.5 | 0.2398 | 23.236 | 641.9 | 0.2400 |
| 24 | 8.594 | 641.3 | 0.2214 | 10.378 | 661.9 | 0.2360 | 10.391 | 598.9 | 0.2361 |
| 25 | 4.914 | 605.0 | 0.2192 | 5.877 | 615.1 | 0.2329 | 5.883 | 579.5 | 0.2330 |

Table 4-33. LS1 Burnup and TH Feedback Parameters Assembly C10

| Node No. | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|-------------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.732 | 648.1 | 0.7396 | 3.532 | 656.8 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.768 | 897.0 | 0.7396 | 11.867 | 944.0 | 0.7396 |
| 3 | 0.000 | | 0.7281 | 7.926 | 983.1 | 0.7281 | 16.254 | 1042.9 | 0.7233 |
| 4 | 0.000 | Data | 0.6831 | 9.180 | 1074.4 | 0.6831 | 18.448 | 1118.8 | 0.6729 |
| 5 | 0.000 | Not | 0.6236 | 9.646 | 1110.6 | 0.6236 | 19.136 | 1137.6 | 0.6103 |
| 6 | 0.000 | Required | 0.5616 | 9.719 | 1116.4 | 0.5616 | 19.232 | 1139.5 | 0.5485 |
| 7 | 0.000 | | 0.5055 | 9.682 | 1113.5 | 0.5055 | 19.220 | 1141.7 | 0.4946 |
| 8 | 0.000 | | 0.4584 | 9.696 | 1114.6 | 0.4584 | 19.306 | 1147.8 | 0.4494 |
| 9 | 0.000 | | 0.4183 | 10.051 | 1143.1 | 0.4183 | 19.933 | 1171.5 | 0.4108 |
| 10 | 0.000 | | 0.3841 | 10.006 | 1139.5 | 0.3841 | 19.988 | 1180.3 | 0.3777 |
| 11 | 0.000 | | 0.3552 | 9.867 | 1128.2 | 0.3552 | 19.937 | 1188.2 | 0.3494 |
| 12 | 0.000 | | 0.3306 | 9.680 | 1113.3 | 0.3306 | 19.829 | 1195.2 | 0.3250 |
| 13 | 0.000 | | 0.3096 | 9.465 | 1096.4 | 0.3096 | 19.687 | 1201.8 | 0.3038 |
| 14 | 0.000 | | 0.2915 | 9.233 | 1078.4 | 0.2915 | 19.513 | 1207.0 | 0.2852 |
| 15 | 0.000 | | 0.2757 | 8.983 | 1059.5 | 0.2757 | 19.302 | 1210.6 | 0.2688 |
| 16 | 0.000 | | 0.2619 | 8.716 | 1039.6 | 0.2619 | 19.037 | 1210.7 | 0.2541 |
| 17 | 0.000 | | 0.2496 | 8.424 | 1018.3 | 0.2496 | 18.688 | 1205.6 | 0.2410 |
| 18 | 0.000 | | 0.2388 | 8.093 | 994.7 | 0.2388 | 18.201 | 1191.5 | 0.2294 |
| 19 | 0.000 | | 0.2292 | 7.691 | 966.9 | 0.2292 | 17.487 | 1164.0 | 0.2190 |
| 20 | 0.000 | | 0.2209 | 7.170 | 932.1 | 0.2209 | 16.433 | 1118.4 | 0.2100 |
| 21 | 0.000 | | 0.2137 | 6.338 | 879.2 | 0.2137 | 14.661 | 1042.5 | 0.2022 |
| 22 | 0.000 | | 0.2078 | 5.414 | 824.3 | 0.2078 | 12.543 | 953.9 | 0.1958 |
| 23 | 0.000 | | 0.2031 | 4.450 | 770.7 | 0.2031 | 10.198 | 861.5 | 0.1908 |
| 24 | 0.000 | | 0.1997 | 2.012 | 650.2 | 0.1997 | 4.687 | 687.7 | 0.1872 |
| 25 | 0.000 | | 0.1984 | 1.228 | 615.3 | 0.1984 | 2.815 | 634.8 | 0.1856 |
| Node No. | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.266 | 669.0 | 0.7396 | 6.485 | 686.6 | 0.7396 | 7.593 | 629.1 | 0.7396 |
| 2 | 17.716 | 999.5 | 0.7396 | 21.539 | 1038.6 | 0.7396 | 24.933 | 792.4 | 0.7396 |
| 3 | 23.578 | 1056.6 | 0.7222 | 28.164 | 1072.7 | 0.7208 | 32.425 | 816.7 | 0.7232 |
| 4 | 26.270 | 1103.3 | 0.6720 | 31.046 | 1102.1 | 0.6703 | 35.851 | 856.1 | 0.6760 |
| 5 | 27.008 | 1108.1 | 0.6101 | 31.781 | 1101.6 | 0.6086 | 37.023 | 889.1 | 0.6185 |
| 6 | 27.000 | 1098.1 | 0.5491 | 31.725 | 1094.1 | 0.5481 | 37.326 | 917.3 | 0.5615 |
| 7 | 26.870 | 1086.9 | 0.4958 | 31.551 | 1087.3 | 0.4953 | 37.434 | 940.1 | 0.5111 |
| 8 | 26.888 | 1080.5 | 0.4512 | 31.537 | 1082.4 | 0.4510 | 37.648 | 959.0 | 0.4680 |
| 9 | 27.554 | 1084.2 | 0.4132 | 32.220 | 1085.0 | 0.4134 | 38.550 | 977.6 | 0.4305 |
| 10 | 27.535 | 1077.2 | 0.3806 | 32.178 | 1081.4 | 0.3811 | 38.577 | 983.5 | 0.3980 |
| 11 | 27.371 | 1066.7 | 0.3527 | 31.990 | 1077.8 | 0.3534 | 38.366 | 981.5 | 0.3696 |
| 12 | 27.128 | 1054.3 | 0.3287 | 31.722 | 1074.0 | 0.3296 | 38.015 | 974.4 | 0.3450 |
| 13 | 26.838 | 1040.9 | 0.3078 | 31.408 | 1070.3 | 0.3088 | 37.594 | 965.3 | 0.3235 |
| 14 | 26.508 | 1026.9 | 0.2895 | 31.053 | 1066.5 | 0.2905 | 37.230 | 964.6 | 0.3052 |
| 15 | 26.133 | 1012.4 | 0.2733 | 30.645 | 1061.5 | 0.2744 | 37.227 | 999.4 | 0.2905 |
| 16 | 25.695 | 997.4 | 0.2589 | 30.163 | 1054.9 | 0.2600 | 36.742 | 999.1 | 0.2758 |
| 17 | 25.168 | 982.2 | 0.2460 | 29.567 | 1044.7 | 0.2472 | 35.833 | 972.1 | 0.2617 |
| 18 | 24.511 | 968.0 | 0.2346 | 28.805 | 1029.3 | 0.2357 | 34.651 | 937.1 | 0.2490 |
| 19 | 23.659 | 956.5 | 0.2244 | 27.810 | 1008.7 | 0.2255 | 33.259 | 905.3 | 0.2381 |
| 20 | 22.425 | 941.8 | 0.2155 | 26.383 | 981.6 | 0.2166 | 31.397 | 871.7 | 0.2285 |
| 21 | 20.237 | 908.8 | 0.2079 | 23.870 | 937.7 | 0.2089 | 28.337 | 831.4 | 0.2202 |
| 22 | 17.459 | 858.9 | 0.2015 | 20.661 | 882.7 | 0.2025 | 24.516 | 788.6 | 0.2136 |
| 23 | 14.145 | 790.9 | 0.1963 | 16.750 | 812.2 | 0.1972 | 19.814 | 736.5 | 0.2079 |
| 24 | 6.452 | 656.8 | 0.1927 | 7.643 | 667.1 | 0.1936 | 9.031 | 637.1 | 0.2041 |
| 25 | 3.805 | 614.5 | 0.1908 | 4.482 | 620.7 | 0.1918 | 5.249 | 603.3 | 0.2017 |

Table 4-33. LS1 Burnup and TH Feedback Parameters Assembly C10 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 8.019 | 604.6 | 0.7396 | 8.985 | 621.5 | 0.7396 |
| 2 | 26.232 | 703.9 | 0.7396 | 28.956 | 746.3 | 0.7396 |
| 3 | 34.116 | 724.7 | 0.7248 | 37.365 | 753.6 | 0.7269 |
| 4 | 37.832 | 756.3 | 0.6798 | 41.309 | 769.0 | 0.6848 |
| 5 | 39.245 | 783.5 | 0.6251 | 42.887 | 780.3 | 0.6334 |
| 6 | 39.739 | 805.8 | 0.5709 | 43.555 | 792.4 | 0.5822 |
| 7 | 39.993 | 823.3 | 0.5225 | 44.004 | 806.2 | 0.5363 |
| 8 | 40.325 | 837.7 | 0.4807 | 44.543 | 821.1 | 0.4962 |
| 9 | 41.339 | 851.7 | 0.4437 | 45.800 | 839.0 | 0.4601 |
| 10 | 41.422 | 858.7 | 0.4111 | 46.094 | 854.9 | 0.4282 |
| 11 | 41.241 | 862.5 | 0.3825 | 46.116 | 870.4 | 0.3999 |
| 12 | 40.907 | 864.7 | 0.3575 | 45.980 | 885.9 | 0.3748 |
| 13 | 40.495 | 865.8 | 0.3357 | 45.759 | 901.1 | 0.3528 |
| 14 | 40.124 | 864.9 | 0.3168 | 45.561 | 915.1 | 0.3335 |
| 15 | 40.061 | 857.3 | 0.3014 | 45.601 | 923.6 | 0.3171 |
| 16 | 39.522 | 850.5 | 0.2863 | 45.195 | 934.6 | 0.3014 |
| 17 | 38.537 | 841.1 | 0.2718 | 44.346 | 946.0 | 0.2867 |
| 18 | 37.243 | 827.3 | 0.2588 | 43.166 | 955.7 | 0.2734 |
| 19 | 35.733 | 813.1 | 0.2475 | 41.795 | 967.7 | 0.2621 |
| 20 | 33.812 | 806.0 | 0.2380 | 39.900 | 969.9 | 0.2522 |
| 21 | 30.702 | 800.1 | 0.2301 | 36.687 | 961.0 | 0.2446 |
| 22 | 27.046 | 819.8 | 0.2252 | 32.555 | 921.0 | 0.2389 |
| 23 | 22.090 | 789.7 | 0.2202 | 26.697 | 850.0 | 0.2332 |
| 24 | 10.112 | 662.5 | 0.2165 | 12.344 | 688.8 | 0.2294 |
| 25 | 5.857 | 617.7 | 0.2136 | 7.146 | 633.4 | 0.2266 |

Table 4-34. LS1 Burnup and TH Feedback Parameters Assembly C11

| Node No. | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|-------------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.581 | 640.1 | 0.7396 | 3.263 | 650.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.274 | 862.6 | 0.7396 | 10.929 | 909.9 | 0.7396 |
| 3 | 0.000 | | 0.7331 | 7.264 | 938.3 | 0.7331 | 15.084 | 1004.1 | 0.7282 |
| 4 | 0.000 | Data | 0.6945 | 8.455 | 1020.5 | 0.6945 | 17.268 | 1081.3 | 0.6840 |
| 5 | 0.000 | Not | 0.6421 | 8.954 | 1057.3 | 0.6421 | 18.046 | 1104.1 | 0.6268 |
| 6 | 0.000 | Required | 0.5846 | 9.097 | 1068.1 | 0.5846 | 18.243 | 1108.6 | 0.5680 |
| 7 | 0.000 | | 0.5298 | 9.121 | 1069.9 | 0.5298 | 18.310 | 1112.2 | 0.5145 |
| 8 | 0.000 | | 0.4819 | 9.179 | 1074.3 | 0.4819 | 18.456 | 1119.5 | 0.4686 |
| 9 | 0.000 | | 0.4406 | 9.559 | 1103.7 | 0.4406 | 19.132 | 1144.7 | 0.4289 |
| 10 | 0.000 | | 0.4051 | 9.546 | 1102.7 | 0.4051 | 19.230 | 1154.2 | 0.3947 |
| 11 | 0.000 | | 0.3749 | 9.439 | 1094.4 | 0.3749 | 19.223 | 1162.9 | 0.3653 |
| 12 | 0.000 | | 0.3491 | 9.280 | 1082.1 | 0.3491 | 19.156 | 1171.0 | 0.3398 |
| 13 | 0.000 | | 0.3270 | 9.088 | 1067.4 | 0.3270 | 19.051 | 1178.6 | 0.3177 |
| 14 | 0.000 | | 0.3079 | 8.876 | 1051.5 | 0.3079 | 18.913 | 1185.2 | 0.2983 |
| 15 | 0.000 | | 0.2912 | 8.646 | 1034.4 | 0.2912 | 18.739 | 1190.2 | 0.2810 |
| 16 | 0.000 | | 0.2766 | 8.399 | 1016.5 | 0.2766 | 18.517 | 1192.4 | 0.2657 |
| 17 | 0.000 | | 0.2638 | 8.134 | 997.6 | 0.2638 | 18.220 | 1189.6 | 0.2519 |
| 18 | 0.000 | | 0.2524 | 7.854 | 978.1 | 0.2524 | 17.806 | 1177.7 | 0.2398 |
| 19 | 0.000 | | 0.2422 | 7.533 | 956.2 | 0.2422 | 17.186 | 1151.6 | 0.2289 |
| 20 | 0.000 | | 0.2332 | 7.109 | 928.1 | 0.2332 | 16.237 | 1107.1 | 0.2195 |
| 21 | 0.000 | | 0.2254 | 6.359 | 880.5 | 0.2254 | 14.559 | 1033.0 | 0.2113 |
| 22 | 0.000 | | 0.2189 | 5.483 | 828.3 | 0.2189 | 12.515 | 947.1 | 0.2046 |
| 23 | 0.000 | | 0.2138 | 4.536 | 775.4 | 0.2138 | 10.221 | 857.5 | 0.1994 |
| 24 | 0.000 | | 0.2101 | 2.060 | 652.4 | 0.2101 | 4.709 | 686.4 | 0.1956 |
| 25 | 0.000 | | 0.2086 | 1.253 | 616.4 | 0.2086 | 2.823 | 634.0 | 0.1939 |
| Node No. | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.296 | 623.3 | 0.7396 | 5.161 | 647.9 | 0.7396 | 6.548 | 647.4 | 0.7396 |
| 2 | 14.579 | 808.4 | 0.7396 | 17.434 | 892.3 | 0.7396 | 21.854 | 876.7 | 0.7396 |
| 3 | 19.875 | 849.8 | 0.7316 | 23.397 | 923.2 | 0.7307 | 29.013 | 918.5 | 0.7314 |
| 4 | 22.590 | 889.3 | 0.6923 | 26.327 | 951.5 | 0.6916 | 32.614 | 973.9 | 0.6933 |
| 5 | 23.668 | 912.4 | 0.6411 | 27.550 | 971.1 | 0.6413 | 34.233 | 1008.3 | 0.6440 |
| 6 | 24.239 | 942.2 | 0.5872 | 28.500 | 1024.5 | 0.5886 | 35.347 | 1022.9 | 0.5915 |
| 7 | 24.401 | 949.9 | 0.5360 | 28.770 | 1040.2 | 0.5375 | 35.780 | 1037.6 | 0.5403 |
| 8 | 24.520 | 947.7 | 0.4905 | 28.879 | 1038.8 | 0.4918 | 36.061 | 1053.4 | 0.4944 |
| 9 | 25.201 | 948.1 | 0.4504 | 29.574 | 1040.8 | 0.4518 | 36.965 | 1073.0 | 0.4539 |
| 10 | 25.220 | 941.7 | 0.4158 | 29.559 | 1035.8 | 0.4173 | 36.999 | 1077.6 | 0.4190 |
| 11 | 25.114 | 933.7 | 0.3859 | 29.423 | 1031.4 | 0.3876 | 36.819 | 1073.5 | 0.3890 |
| 12 | 24.934 | 924.7 | 0.3601 | 29.220 | 1028.1 | 0.3618 | 36.506 | 1063.1 | 0.3630 |
| 13 | 24.706 | 915.0 | 0.3375 | 28.988 | 1027.5 | 0.3393 | 36.123 | 1049.1 | 0.3404 |
| 14 | 24.436 | 904.7 | 0.3176 | 28.699 | 1024.8 | 0.3194 | 35.654 | 1032.6 | 0.3205 |
| 15 | 24.115 | 893.4 | 0.3000 | 28.351 | 1020.8 | 0.3017 | 35.092 | 1013.4 | 0.3028 |
| 16 | 23.723 | 880.5 | 0.2841 | 27.921 | 1015.4 | 0.2858 | 34.377 | 988.4 | 0.2870 |
| 17 | 23.225 | 865.5 | 0.2699 | 27.363 | 1006.8 | 0.2716 | 33.442 | 956.4 | 0.2730 |
| 18 | 22.596 | 849.7 | 0.2572 | 26.644 | 994.1 | 0.2588 | 32.288 | 920.8 | 0.2604 |
| 19 | 21.814 | 838.1 | 0.2463 | 25.734 | 976.3 | 0.2478 | 30.947 | 886.9 | 0.2495 |
| 20 | 20.907 | 841.1 | 0.2377 | 24.628 | 949.4 | 0.2389 | 29.414 | 854.7 | 0.2406 |
| 21 | 19.075 | 830.1 | 0.2304 | 22.472 | 907.2 | 0.2313 | 26.742 | 817.3 | 0.2330 |
| 22 | 16.529 | 795.4 | 0.2237 | 19.519 | 857.0 | 0.2244 | 23.200 | 776.8 | 0.2263 |
| 23 | 13.451 | 744.1 | 0.2176 | 15.877 | 792.2 | 0.2183 | 18.817 | 728.7 | 0.2204 |
| 24 | 6.143 | 638.4 | 0.2131 | 7.247 | 659.1 | 0.2138 | 8.603 | 635.3 | 0.2162 |
| 25 | 3.712 | 609.1 | 0.2124 | 4.367 | 618.8 | 0.2136 | 5.125 | 602.8 | 0.2155 |

Table 4-34. LS1 Burnup and TH Feedback Parameters Assembly C11 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 7.351 | 646.0 | 0.7396 | 8.779 | 652.5 | 0.7396 |
| 2 | 24.342 | 860.8 | 0.7396 | 28.400 | 854.6 | 0.7396 |
| 3 | 32.187 | 901.5 | 0.7318 | 36.955 | 862.2 | 0.7323 |
| 4 | 36.184 | 956.0 | 0.6943 | 41.155 | 877.9 | 0.6959 |
| 5 | 38.019 | 987.2 | 0.6455 | 43.089 | 884.1 | 0.6487 |
| 6 | 39.202 | 997.4 | 0.5933 | 44.307 | 888.4 | 0.5981 |
| 7 | 39.677 | 1003.6 | 0.5422 | 44.919 | 899.3 | 0.5486 |
| 8 | 40.002 | 1010.2 | 0.4962 | 45.425 | 914.0 | 0.5039 |
| 9 | 40.982 | 1021.8 | 0.4557 | 46.650 | 934.2 | 0.4641 |
| 10 | 41.025 | 1023.1 | 0.4208 | 46.891 | 950.9 | 0.4296 |
| 11 | 40.837 | 1021.9 | 0.3907 | 46.892 | 967.1 | 0.3997 |
| 12 | 40.514 | 1020.4 | 0.3646 | 46.755 | 983.3 | 0.3735 |
| 13 | 40.126 | 1019.6 | 0.3420 | 46.545 | 999.2 | 0.3507 |
| 14 | 39.662 | 1020.4 | 0.3220 | 46.251 | 1014.6 | 0.3304 |
| 15 | 39.098 | 1020.1 | 0.3043 | 45.847 | 1029.3 | 0.3123 |
| 16 | 38.355 | 1015.8 | 0.2885 | 45.250 | 1042.9 | 0.2962 |
| 17 | 37.326 | 1001.7 | 0.2743 | 44.344 | 1054.5 | 0.2816 |
| 18 | 36.013 | 978.2 | 0.2617 | 43.092 | 1060.3 | 0.2686 |
| 19 | 34.478 | 950.4 | 0.2507 | 41.511 | 1055.9 | 0.2571 |
| 20 | 32.721 | 919.4 | 0.2417 | 39.542 | 1036.0 | 0.2474 |
| 21 | 29.752 | 879.9 | 0.2341 | 36.096 | 992.5 | 0.2391 |
| 22 | 25.852 | 834.6 | 0.2273 | 31.518 | 934.0 | 0.2318 |
| 23 | 20.975 | 776.2 | 0.2214 | 25.600 | 851.3 | 0.2255 |
| 24 | 9.626 | 656.9 | 0.2172 | 11.858 | 688.8 | 0.2214 |
| 25 | 5.706 | 615.2 | 0.2164 | 6.969 | 631.9 | 0.2201 |

Table 4-35. LS1 Burnup and TH Feedback Parameters Assembly C12

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.815 | 652.6 | 0.7396 | 3.248 | 636.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.063 | 918.1 | 0.7396 | 10.962 | 854.4 | 0.7396 |
| 3 | 0.000 | | 0.7257 | 8.330 | 1011.6 | 0.7257 | 15.180 | 934.4 | 0.7288 |
| 4 | 0.000 | Data | 0.6779 | 9.561 | 1103.9 | 0.6779 | 17.345 | 1001.5 | 0.6851 |
| 5 | 0.000 | Not | 0.6160 | 9.914 | 1132.0 | 0.6160 | 18.028 | 1026.4 | 0.6283 |
| 6 | 0.000 | Required | 0.5531 | 9.873 | 1128.7 | 0.5531 | 18.105 | 1035.4 | 0.5697 |
| 7 | 0.000 | | 0.4975 | 9.759 | 1119.6 | 0.4975 | 18.068 | 1041.4 | 0.5167 |
| 8 | 0.000 | | 0.4514 | 9.723 | 1116.7 | 0.4514 | 18.139 | 1049.7 | 0.4714 |
| 9 | 0.000 | | 0.4126 | 10.047 | 1142.8 | 0.4126 | 18.747 | 1072.2 | 0.4323 |
| 10 | 0.000 | | 0.3792 | 9.994 | 1138.5 | 0.3792 | 18.805 | 1081.2 | 0.3986 |
| 11 | 0.000 | | 0.3508 | 9.860 | 1127.7 | 0.3508 | 18.765 | 1088.8 | 0.3696 |
| 12 | 0.000 | | 0.3267 | 9.682 | 1113.5 | 0.3267 | 18.674 | 1095.9 | 0.3447 |
| 13 | 0.000 | | 0.3061 | 9.474 | 1097.1 | 0.3061 | 18.547 | 1102.6 | 0.3230 |
| 14 | 0.000 | | 0.2882 | 9.241 | 1079.1 | 0.2882 | 18.387 | 1108.6 | 0.3039 |
| 15 | 0.000 | | 0.2726 | 8.978 | 1059.1 | 0.2726 | 18.189 | 1114.0 | 0.2870 |
| 16 | 0.000 | | 0.2590 | 8.678 | 1036.8 | 0.2590 | 17.939 | 1118.2 | 0.2720 |
| 17 | 0.000 | | 0.2470 | 8.326 | 1011.3 | 0.2470 | 17.600 | 1119.3 | 0.2586 |
| 18 | 0.000 | | 0.2365 | 7.903 | 981.5 | 0.2365 | 17.107 | 1113.4 | 0.2466 |
| 19 | 0.000 | | 0.2273 | 7.387 | 946.4 | 0.2273 | 16.354 | 1093.9 | 0.2360 |
| 20 | 0.000 | | 0.2195 | 6.755 | 905.3 | 0.2195 | 15.243 | 1055.4 | 0.2266 |
| 21 | 0.000 | | 0.2128 | 5.856 | 850.1 | 0.2128 | 13.454 | 987.7 | 0.2187 |
| 22 | 0.000 | | 0.2074 | 4.920 | 796.4 | 0.2074 | 11.388 | 908.4 | 0.2121 |
| 23 | 0.000 | | 0.2031 | 3.998 | 746.9 | 0.2031 | 9.189 | 827.0 | 0.2068 |
| 24 | 0.000 | | 0.2001 | 1.790 | 640.2 | 0.2001 | 4.185 | 673.7 | 0.2034 |
| 25 | 0.000 | | 0.1989 | 1.090 | 609.3 | 0.1989 | 2.488 | 626.0 | 0.2017 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.228 | 619.9 | 0.7396 | 4.767 | 613.7 | 0.7396 | 6.054 | 640.8 | 0.7396 |
| 2 | 14.344 | 787.5 | 0.7396 | 16.120 | 751.5 | 0.7396 | 20.341 | 859.8 | 0.7396 |
| 3 | 19.472 | 814.4 | 0.7324 | 21.637 | 764.0 | 0.7342 | 27.006 | 899.0 | 0.7347 |
| 4 | 22.022 | 841.6 | 0.6940 | 24.338 | 780.2 | 0.6983 | 30.335 | 949.5 | 0.6999 |
| 5 | 22.897 | 855.5 | 0.6439 | 25.291 | 788.7 | 0.6514 | 31.665 | 981.3 | 0.6540 |
| 6 | 23.094 | 864.3 | 0.5915 | 25.549 | 795.4 | 0.6021 | 32.156 | 1001.6 | 0.6050 |
| 7 | 23.137 | 870.2 | 0.5431 | 25.647 | 801.5 | 0.5561 | 32.404 | 1014.8 | 0.5581 |
| 8 | 23.258 | 874.0 | 0.5001 | 25.818 | 807.1 | 0.5149 | 32.702 | 1026.2 | 0.5157 |
| 9 | 23.950 | 880.3 | 0.4615 | 26.584 | 815.5 | 0.4772 | 33.659 | 1043.6 | 0.4771 |
| 10 | 24.000 | 879.7 | 0.4277 | 26.669 | 819.5 | 0.4440 | 33.804 | 1049.1 | 0.4432 |
| 11 | 23.930 | 877.4 | 0.3984 | 26.624 | 822.3 | 0.4148 | 33.739 | 1047.2 | 0.4135 |
| 12 | 23.787 | 873.5 | 0.3728 | 26.501 | 824.6 | 0.3893 | 33.528 | 1039.2 | 0.3876 |
| 13 | 23.590 | 868.3 | 0.3503 | 26.319 | 826.3 | 0.3666 | 33.204 | 1026.3 | 0.3647 |
| 14 | 23.345 | 862.0 | 0.3305 | 26.083 | 827.4 | 0.3466 | 32.784 | 1009.8 | 0.3447 |
| 15 | 23.046 | 854.6 | 0.3129 | 25.787 | 827.7 | 0.3288 | 32.257 | 989.6 | 0.3268 |
| 16 | 22.679 | 846.1 | 0.2971 | 25.414 | 827.0 | 0.3128 | 31.594 | 964.8 | 0.3110 |
| 17 | 22.203 | 836.3 | 0.2831 | 24.923 | 825.3 | 0.2984 | 30.743 | 935.0 | 0.2969 |
| 18 | 21.559 | 825.6 | 0.2706 | 24.250 | 822.0 | 0.2857 | 29.678 | 903.6 | 0.2845 |
| 19 | 20.646 | 814.4 | 0.2597 | 23.293 | 817.0 | 0.2747 | 28.345 | 874.6 | 0.2737 |
| 20 | 19.347 | 801.5 | 0.2504 | 21.924 | 809.0 | 0.2654 | 26.628 | 848.6 | 0.2645 |
| 21 | 17.233 | 779.6 | 0.2428 | 19.653 | 791.5 | 0.2579 | 23.905 | 816.1 | 0.2569 |
| 22 | 14.719 | 750.5 | 0.2366 | 16.912 | 766.9 | 0.2519 | 20.615 | 778.3 | 0.2509 |
| 23 | 11.869 | 710.1 | 0.2309 | 13.688 | 728.1 | 0.2462 | 16.655 | 730.4 | 0.2453 |
| 24 | 5.366 | 624.7 | 0.2267 | 6.168 | 631.8 | 0.2414 | 7.485 | 633.1 | 0.2408 |
| 25 | 3.130 | 596.2 | 0.2233 | 3.561 | 599.4 | 0.2371 | 4.294 | 601.5 | 0.2370 |

Table 4-35. LS1 Burnup and TH Feedback Parameters Assembly C12 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.798 | 639.4 | 0.7396 | 8.196 | 650.5 | 0.7396 | 8.204 | 585.8 | 0.7396 |
| 2 | 22.690 | 841.0 | 0.7396 | 26.721 | 852.3 | 0.7396 | 26.744 | 635.8 | 0.7396 |
| 3 | 29.991 | 876.6 | 0.7350 | 34.711 | 858.5 | 0.7352 | 34.739 | 641.9 | 0.7352 |
| 4 | 33.676 | 924.0 | 0.7009 | 38.592 | 873.6 | 0.7018 | 38.624 | 653.7 | 0.7018 |
| 5 | 35.207 | 952.0 | 0.6557 | 40.215 | 880.8 | 0.6579 | 40.249 | 659.7 | 0.658 |
| 6 | 35.800 | 966.5 | 0.6070 | 40.918 | 889.5 | 0.6107 | 40.955 | 668.8 | 0.6108 |
| 7 | 36.091 | 972.7 | 0.5602 | 41.349 | 900.6 | 0.5651 | 41.389 | 678.0 | 0.5652 |
| 8 | 36.412 | 976.1 | 0.5175 | 41.832 | 913.7 | 0.5233 | 41.875 | 687.3 | 0.5235 |
| 9 | 37.421 | 983.6 | 0.4786 | 43.055 | 931.3 | 0.4850 | 43.101 | 696.8 | 0.4852 |
| 10 | 37.567 | 983.8 | 0.4445 | 43.374 | 945.9 | 0.4511 | 43.422 | 703.2 | 0.4513 |
| 11 | 37.484 | 981.2 | 0.4148 | 43.459 | 960.2 | 0.4214 | 43.508 | 706.4 | 0.4215 |
| 12 | 37.262 | 979.6 | 0.3887 | 43.405 | 974.7 | 0.3952 | 43.454 | 706.4 | 0.3953 |
| 13 | 36.948 | 981.0 | 0.3658 | 43.256 | 989.3 | 0.3720 | 43.306 | 709.6 | 0.3722 |
| 14 | 36.573 | 987.6 | 0.3457 | 43.038 | 1003.3 | 0.3514 | 43.087 | 706.4 | 0.3516 |
| 15 | 36.122 | 998.9 | 0.3277 | 42.728 | 1016.1 | 0.3331 | 42.776 | 703.2 | 0.3333 |
| 16 | 35.515 | 1007.2 | 0.3117 | 42.244 | 1027.4 | 0.3167 | 42.292 | 703.2 | 0.3168 |
| 17 | 34.640 | 1003.6 | 0.2974 | 41.469 | 1036.7 | 0.3019 | 41.515 | 696.8 | 0.3021 |
| 18 | 33.457 | 986.1 | 0.2848 | 40.336 | 1041.4 | 0.2888 | 40.380 | 690.5 | 0.2889 |
| 19 | 31.953 | 961.4 | 0.2737 | 38.789 | 1037.4 | 0.2772 | 38.831 | 684.2 | 0.2773 |
| 20 | 30.035 | 933.1 | 0.2643 | 36.683 | 1020.0 | 0.2671 | 36.723 | 678.0 | 0.2672 |
| 21 | 27.016 | 893.1 | 0.2566 | 33.209 | 979.1 | 0.2586 | 33.246 | 668.8 | 0.2588 |
| 22 | 23.352 | 845.2 | 0.2503 | 28.879 | 922.5 | 0.2517 | 28.911 | 653.7 | 0.2517 |
| 23 | 18.871 | 782.8 | 0.2446 | 23.392 | 843.5 | 0.2455 | 23.418 | 636.0 | 0.2455 |
| 24 | 8.494 | 655.5 | 0.2401 | 10.620 | 682.3 | 0.2409 | 10.632 | 596.1 | 0.2410 |
| 25 | 4.861 | 613.9 | 0.2365 | 6.059 | 628.2 | 0.2375 | 6.065 | 579.5 | 0.2376 |

Table 4-36. LS1 Burnup and TH Feedback Parameters Assembly C13

| Node No. | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|-------------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.574 | 639.7 | 0.7396 | 3.251 | 649.8 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.248 | 860.8 | 0.7396 | 10.882 | 908.3 | 0.7396 |
| 3 | 0.000 | | 0.7331 | 7.228 | 935.9 | 0.7331 | 15.022 | 1002.2 | 0.7283 |
| 4 | 0.000 | Data | 0.6948 | 8.418 | 1017.9 | 0.6948 | 17.208 | 1079.5 | 0.6842 |
| 5 | 0.000 | Not | 0.6426 | 8.920 | 1054.7 | 0.6426 | 17.991 | 1102.4 | 0.6272 |
| 6 | 0.000 | Required | 0.5852 | 9.065 | 1065.7 | 0.5852 | 18.191 | 1107.0 | 0.5684 |
| 7 | 0.000 | | 0.5304 | 9.092 | 1067.7 | 0.5304 | 18.260 | 1110.4 | 0.5149 |
| 8 | 0.000 | | 0.4825 | 9.151 | 1072.2 | 0.4825 | 18.408 | 1117.9 | 0.4690 |
| 9 | 0.000 | | 0.4411 | 9.531 | 1101.6 | 0.4411 | 19.084 | 1143.0 | 0.4293 |
| 10 | 0.000 | | 0.4056 | 9.520 | 1100.7 | 0.4056 | 19.183 | 1152.4 | 0.3949 |
| 11 | 0.000 | | 0.3753 | 9.413 | 1092.3 | 0.3753 | 19.177 | 1161.2 | 0.3656 |
| 12 | 0.000 | | 0.3495 | 9.254 | 1080.1 | 0.3495 | 19.109 | 1169.1 | 0.3401 |
| 13 | 0.000 | | 0.3274 | 9.063 | 1065.5 | 0.3274 | 19.004 | 1176.7 | 0.3180 |
| 14 | 0.000 | | 0.3083 | 8.851 | 1049.6 | 0.3083 | 18.867 | 1183.3 | 0.2985 |
| 15 | 0.000 | | 0.2916 | 8.622 | 1032.7 | 0.2916 | 18.693 | 1188.2 | 0.2813 |
| 16 | 0.000 | | 0.2770 | 8.376 | 1014.8 | 0.2770 | 18.472 | 1190.5 | 0.2659 |
| 17 | 0.000 | | 0.2640 | 8.112 | 996.1 | 0.2640 | 18.176 | 1187.6 | 0.2522 |
| 18 | 0.000 | | 0.2526 | 7.833 | 976.6 | 0.2526 | 17.763 | 1175.7 | 0.2399 |
| 19 | 0.000 | | 0.2425 | 7.513 | 954.9 | 0.2425 | 17.145 | 1149.7 | 0.2291 |
| 20 | 0.000 | | 0.2335 | 7.090 | 926.9 | 0.2335 | 16.198 | 1105.5 | 0.2196 |
| 21 | 0.000 | | 0.2256 | 6.343 | 879.6 | 0.2256 | 14.524 | 1031.5 | 0.2114 |
| 22 | 0.000 | | 0.2192 | 5.469 | 827.4 | 0.2192 | 12.485 | 946.0 | 0.2048 |
| 23 | 0.000 | | 0.2140 | 4.524 | 774.7 | 0.2140 | 10.196 | 856.7 | 0.1996 |
| 24 | 0.000 | | 0.2104 | 2.056 | 652.2 | 0.2104 | 4.699 | 686.1 | 0.1957 |
| 25 | 0.000 | | 0.2089 | 1.250 | 616.3 | 0.2089 | 2.816 | 633.8 | 0.1941 |
| Node No. | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.036 | 607.7 | 0.7396 | 4.907 | 648.5 | 0.7396 | 6.318 | 649.0 | 0.7396 |
| 2 | 13.677 | 743.4 | 0.7396 | 16.557 | 895.8 | 0.7396 | 21.139 | 890.8 | 0.7396 |
| 3 | 18.729 | 774.9 | 0.7316 | 22.232 | 920.7 | 0.7319 | 28.049 | 934.7 | 0.7321 |
| 4 | 21.531 | 816.6 | 0.6927 | 25.176 | 939.3 | 0.6940 | 31.610 | 986.5 | 0.6947 |
| 5 | 23.045 | 869.1 | 0.6433 | 26.648 | 933.7 | 0.6459 | 33.367 | 1011.4 | 0.6469 |
| 6 | 23.983 | 925.8 | 0.5921 | 27.518 | 924.9 | 0.5960 | 34.356 | 1022.1 | 0.5965 |
| 7 | 24.573 | 968.2 | 0.5430 | 28.050 | 917.4 | 0.5477 | 34.963 | 1028.8 | 0.5478 |
| 8 | 24.897 | 983.0 | 0.4972 | 28.351 | 914.4 | 0.5028 | 35.384 | 1039.7 | 0.5025 |
| 9 | 25.764 | 999.3 | 0.4565 | 29.247 | 918.2 | 0.4626 | 36.490 | 1059.1 | 0.4622 |
| 10 | 26.194 | 1028.3 | 0.4229 | 29.647 | 914.3 | 0.4291 | 36.922 | 1062.1 | 0.4283 |
| 11 | 26.211 | 1030.4 | 0.3918 | 29.658 | 913.5 | 0.3983 | 36.923 | 1061.1 | 0.3976 |
| 12 | 26.030 | 1020.4 | 0.3642 | 29.483 | 914.3 | 0.3710 | 36.677 | 1054.5 | 0.3704 |
| 13 | 25.820 | 1011.1 | 0.3403 | 29.278 | 914.9 | 0.3475 | 36.341 | 1042.5 | 0.3470 |
| 14 | 25.514 | 996.5 | 0.3192 | 28.977 | 915.6 | 0.3265 | 35.865 | 1026.6 | 0.3263 |
| 15 | 25.139 | 979.4 | 0.3005 | 28.603 | 915.7 | 0.3080 | 35.265 | 1006.4 | 0.3080 |
| 16 | 24.694 | 960.7 | 0.2840 | 28.149 | 914.6 | 0.2915 | 34.520 | 981.1 | 0.2917 |
| 17 | 24.154 | 940.7 | 0.2693 | 27.581 | 911.0 | 0.2769 | 33.584 | 950.0 | 0.2774 |
| 18 | 23.480 | 919.9 | 0.2564 | 26.859 | 904.9 | 0.2639 | 32.453 | 916.8 | 0.2647 |
| 19 | 22.604 | 899.7 | 0.2451 | 25.905 | 895.0 | 0.2526 | 31.095 | 885.1 | 0.2536 |
| 20 | 21.401 | 880.3 | 0.2357 | 24.582 | 880.1 | 0.2431 | 29.387 | 856.1 | 0.2443 |
| 21 | 19.275 | 846.9 | 0.2275 | 22.230 | 852.8 | 0.2349 | 26.548 | 820.7 | 0.2362 |
| 22 | 16.631 | 804.4 | 0.2207 | 19.271 | 816.2 | 0.2280 | 23.017 | 781.2 | 0.2294 |
| 23 | 13.496 | 748.5 | 0.2147 | 15.658 | 763.6 | 0.2220 | 18.657 | 732.4 | 0.2236 |
| 24 | 6.137 | 638.7 | 0.2102 | 7.099 | 646.1 | 0.2173 | 8.465 | 635.8 | 0.2192 |
| 25 | 3.606 | 603.9 | 0.2076 | 4.136 | 608.0 | 0.2144 | 4.901 | 603.2 | 0.2164 |

Table 4-36. LS1 Burnup and TH Feedback Parameters Assembly C13 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 7.121 | 646.0 | 0.7396 | 8.524 | 650.8 | 0.7396 |
| 2 | 23.649 | 864.0 | 0.7396 | 27.675 | 851.8 | 0.7396 |
| 3 | 31.235 | 903.1 | 0.7324 | 35.968 | 859.5 | 0.7329 |
| 4 | 35.152 | 952.0 | 0.6957 | 40.079 | 874.5 | 0.6972 |
| 5 | 37.074 | 975.6 | 0.6483 | 42.063 | 879.3 | 0.6514 |
| 6 | 38.117 | 983.5 | 0.5981 | 43.175 | 884.7 | 0.6028 |
| 7 | 38.734 | 985.0 | 0.5493 | 43.908 | 893.9 | 0.5554 |
| 8 | 39.170 | 987.2 | 0.5041 | 44.503 | 906.7 | 0.5113 |
| 9 | 40.324 | 994.3 | 0.4638 | 45.863 | 923.5 | 0.4717 |
| 10 | 40.732 | 990.7 | 0.4298 | 46.419 | 935.8 | 0.4379 |
| 11 | 40.711 | 987.5 | 0.3992 | 46.559 | 949.3 | 0.4075 |
| 12 | 40.453 | 985.7 | 0.3722 | 46.472 | 964.0 | 0.3805 |
| 13 | 40.116 | 985.6 | 0.3488 | 46.301 | 978.4 | 0.3571 |
| 14 | 39.655 | 987.8 | 0.3282 | 46.006 | 993.1 | 0.3362 |
| 15 | 39.071 | 990.1 | 0.3099 | 45.580 | 1007.3 | 0.3178 |
| 16 | 38.315 | 988.5 | 0.2936 | 44.968 | 1020.4 | 0.3013 |
| 17 | 37.309 | 978.2 | 0.2792 | 44.078 | 1031.1 | 0.2866 |
| 18 | 36.052 | 960.1 | 0.2665 | 42.876 | 1036.2 | 0.2735 |
| 19 | 34.533 | 937.4 | 0.2553 | 41.315 | 1032.3 | 0.2619 |
| 20 | 32.643 | 912.5 | 0.2459 | 39.235 | 1014.8 | 0.2519 |
| 21 | 29.536 | 877.0 | 0.2377 | 35.673 | 974.2 | 0.2432 |
| 22 | 25.656 | 833.0 | 0.2309 | 31.127 | 917.9 | 0.2359 |
| 23 | 20.803 | 774.8 | 0.2251 | 25.268 | 839.3 | 0.2297 |
| 24 | 9.469 | 655.1 | 0.2207 | 11.606 | 683.0 | 0.2254 |
| 25 | 5.469 | 614.0 | 0.2181 | 6.676 | 628.7 | 0.2226 |

Table 4-37. LS1 Burnup and TH Feedback Parameters Assembly C14

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.583 | 640.2 | 0.7396 | 2.878 | 628.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.296 | 864.1 | 0.7396 | 9.708 | 820.3 | 0.7396 |
| 3 | 0.000 | | 0.7331 | 7.325 | 942.3 | 0.7331 | 13.650 | 898.9 | 0.7349 |
| 4 | 0.000 | Data | 0.6946 | 8.519 | 1025.2 | 0.6946 | 15.877 | 970.3 | 0.6988 |
| 5 | 0.000 | Not | 0.6425 | 8.969 | 1058.4 | 0.6425 | 16.712 | 998.4 | 0.6495 |
| 6 | 0.000 | Required | 0.5857 | 9.046 | 1064.2 | 0.5857 | 16.917 | 1008.0 | 0.5955 |
| 7 | 0.000 | | 0.5316 | 9.014 | 1061.8 | 0.5316 | 16.950 | 1012.8 | 0.5437 |
| 8 | 0.000 | | 0.4845 | 9.030 | 1063.0 | 0.4845 | 17.063 | 1020.2 | 0.4979 |
| 9 | 0.000 | | 0.4437 | 9.378 | 1089.6 | 0.4437 | 17.704 | 1042.7 | 0.4575 |
| 10 | 0.000 | | 0.4087 | 9.351 | 1087.5 | 0.4087 | 17.773 | 1050.2 | 0.4226 |
| 11 | 0.000 | | 0.3788 | 9.238 | 1078.8 | 0.3788 | 17.731 | 1055.8 | 0.3925 |
| 12 | 0.000 | | 0.3531 | 9.078 | 1066.6 | 0.3531 | 17.633 | 1060.7 | 0.3663 |
| 13 | 0.000 | | 0.3311 | 8.890 | 1052.5 | 0.3311 | 17.504 | 1065.4 | 0.3437 |
| 14 | 0.000 | | 0.3121 | 8.677 | 1036.7 | 0.3121 | 17.343 | 1069.5 | 0.3237 |
| 15 | 0.000 | | 0.2955 | 8.438 | 1019.3 | 0.2955 | 17.141 | 1072.5 | 0.3061 |
| 16 | 0.000 | | 0.2809 | 8.161 | 999.5 | 0.2809 | 16.873 | 1073.2 | 0.2904 |
| 17 | 0.000 | | 0.2681 | 7.829 | 976.4 | 0.2681 | 16.499 | 1069.8 | 0.2764 |
| 18 | 0.000 | | 0.2569 | 7.419 | 948.6 | 0.2569 | 15.957 | 1059.3 | 0.2640 |
| 19 | 0.000 | | 0.2471 | 6.917 | 915.7 | 0.2471 | 15.171 | 1037.1 | 0.2529 |
| 20 | 0.000 | | 0.2387 | 6.305 | 877.2 | 0.2387 | 14.069 | 1000.0 | 0.2432 |
| 21 | 0.000 | | 0.2315 | 5.449 | 826.3 | 0.2315 | 12.359 | 938.6 | 0.2350 |
| 22 | 0.000 | | 0.2258 | 4.562 | 776.8 | 0.2258 | 10.416 | 868.2 | 0.2282 |
| 23 | 0.000 | | 0.2213 | 3.686 | 730.8 | 0.2213 | 8.364 | 796.4 | 0.2228 |
| 24 | 0.000 | | 0.2182 | 1.635 | 633.2 | 0.2182 | 3.771 | 661.0 | 0.2193 |
| 25 | 0.000 | | 0.2169 | 0.987 | 604.9 | 0.2169 | 2.225 | 618.6 | 0.2176 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.487 | 660.7 | 0.7396 | 5.491 | 662.9 | 0.7396 | 6.074 | 595.8 | 0.7396 |
| 2 | 15.252 | 970.7 | 0.7396 | 18.513 | 951.2 | 0.7396 | 20.326 | 676.2 | 0.7396 |
| 3 | 20.659 | 1028.2 | 0.7315 | 24.592 | 978.1 | 0.7307 | 26.781 | 682.9 | 0.7328 |
| 4 | 23.276 | 1063.5 | 0.6930 | 27.371 | 1000.7 | 0.6921 | 29.760 | 694.8 | 0.6971 |
| 5 | 24.054 | 1058.2 | 0.6426 | 28.140 | 999.4 | 0.6421 | 30.733 | 707.2 | 0.6513 |
| 6 | 24.078 | 1041.8 | 0.5886 | 28.114 | 992.4 | 0.5888 | 30.944 | 721.8 | 0.6031 |
| 7 | 23.934 | 1025.9 | 0.5377 | 27.921 | 985.6 | 0.5386 | 31.000 | 737.5 | 0.5580 |
| 8 | 23.924 | 1015.1 | 0.4930 | 27.877 | 980.9 | 0.4944 | 31.199 | 753.1 | 0.5181 |
| 9 | 24.563 | 1014.9 | 0.4539 | 28.540 | 984.2 | 0.4558 | 32.117 | 769.9 | 0.4825 |
| 10 | 24.547 | 1007.5 | 0.4203 | 28.500 | 980.9 | 0.4224 | 32.256 | 781.8 | 0.4513 |
| 11 | 24.399 | 998.3 | 0.3912 | 28.327 | 977.4 | 0.3935 | 32.217 | 790.9 | 0.4236 |
| 12 | 24.178 | 987.8 | 0.3659 | 28.081 | 974.0 | 0.3684 | 32.058 | 796.9 | 0.3988 |
| 13 | 23.917 | 976.6 | 0.3439 | 27.793 | 970.3 | 0.3465 | 31.816 | 800.1 | 0.3766 |
| 14 | 23.619 | 965.1 | 0.3246 | 27.466 | 966.3 | 0.3272 | 31.497 | 800.6 | 0.3566 |
| 15 | 23.272 | 953.2 | 0.3074 | 27.082 | 961.3 | 0.3101 | 31.091 | 799.1 | 0.3386 |
| 16 | 22.843 | 940.1 | 0.2922 | 26.603 | 954.6 | 0.2948 | 30.563 | 795.7 | 0.3225 |
| 17 | 22.285 | 925.3 | 0.2786 | 25.973 | 945.0 | 0.2813 | 29.858 | 790.6 | 0.3079 |
| 18 | 21.539 | 909.3 | 0.2664 | 25.131 | 932.3 | 0.2691 | 28.915 | 783.7 | 0.2950 |
| 19 | 20.549 | 893.5 | 0.2557 | 24.025 | 917.3 | 0.2583 | 27.674 | 774.7 | 0.2837 |
| 20 | 19.209 | 875.5 | 0.2462 | 22.535 | 898.2 | 0.2488 | 26.000 | 762.5 | 0.2737 |
| 21 | 17.079 | 844.7 | 0.2382 | 20.145 | 866.1 | 0.2408 | 23.307 | 742.8 | 0.2654 |
| 22 | 14.527 | 802.0 | 0.2316 | 17.238 | 824.3 | 0.2341 | 20.011 | 718.3 | 0.2586 |
| 23 | 11.612 | 745.2 | 0.2261 | 13.808 | 767.3 | 0.2286 | 16.003 | 683.3 | 0.2524 |
| 24 | 5.187 | 637.5 | 0.2226 | 6.147 | 645.9 | 0.2249 | 7.052 | 610.7 | 0.2469 |
| 25 | 3.012 | 603.8 | 0.2208 | 3.546 | 608.3 | 0.2230 | 4.004 | 587.0 | 0.2426 |

Table 4-37. LS1 Burnup and TH Feedback Parameters Assembly C14 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.318 | 585.4 | 0.7396 | 6.644 | 580.4 | 0.7396 | 6.665 | 629.0 | 0.7396 |
| 2 | 21.065 | 638.9 | 0.7396 | 22.019 | 620.7 | 0.7396 | 22.084 | 794.6 | 0.7396 |
| 3 | 27.658 | 642.9 | 0.7336 | 28.756 | 622.6 | 0.7345 | 28.838 | 820.6 | 0.7345 |
| 4 | 30.708 | 649.7 | 0.6989 | 31.859 | 625.6 | 0.7010 | 31.950 | 855.0 | 0.7011 |
| 5 | 31.755 | 656.8 | 0.6546 | 32.966 | 629.0 | 0.6583 | 33.063 | 878.7 | 0.6585 |
| 6 | 32.056 | 665.6 | 0.6083 | 33.354 | 633.9 | 0.6140 | 33.456 | 899.1 | 0.6142 |
| 7 | 32.212 | 675.5 | 0.5653 | 33.620 | 640.1 | 0.5732 | 33.725 | 911.5 | 0.5733 |
| 8 | 32.511 | 685.5 | 0.5275 | 34.049 | 647.6 | 0.5376 | 34.157 | 924.1 | 0.5377 |
| 9 | 33.540 | 696.8 | 0.4935 | 35.237 | 656.8 | 0.5060 | 35.349 | 941.2 | 0.5060 |
| 10 | 33.767 | 705.8 | 0.4639 | 35.619 | 666.0 | 0.4786 | 35.732 | 945.5 | 0.4788 |
| 11 | 33.808 | 714.2 | 0.4374 | 35.824 | 675.7 | 0.4546 | 35.937 | 945.5 | 0.4547 |
| 12 | 33.725 | 722.2 | 0.4137 | 35.916 | 686.3 | 0.4333 | 36.029 | 945.5 | 0.4333 |
| 13 | 33.554 | 729.8 | 0.3922 | 35.929 | 697.6 | 0.4143 | 36.041 | 941.2 | 0.4143 |
| 14 | 33.301 | 736.9 | 0.3729 | 35.865 | 709.3 | 0.3971 | 35.975 | 932.6 | 0.3971 |
| 15 | 32.953 | 743.2 | 0.3553 | 35.708 | 721.4 | 0.3814 | 35.815 | 919.9 | 0.3814 |
| 16 | 32.475 | 748.6 | 0.3393 | 35.418 | 733.5 | 0.3672 | 35.520 | 899.1 | 0.3671 |
| 17 | 31.810 | 753.1 | 0.3249 | 34.932 | 745.2 | 0.3542 | 35.028 | 874.7 | 0.3542 |
| 18 | 30.894 | 756.0 | 0.3121 | 34.173 | 755.7 | 0.3424 | 34.263 | 851.1 | 0.3424 |
| 19 | 29.664 | 757.3 | 0.3007 | 33.056 | 763.2 | 0.3319 | 33.139 | 824.4 | 0.3318 |
| 20 | 27.971 | 755.2 | 0.2910 | 31.406 | 766.1 | 0.3225 | 31.483 | 802.2 | 0.3225 |
| 21 | 25.182 | 744.6 | 0.2829 | 28.512 | 759.1 | 0.3149 | 28.582 | 777.1 | 0.3148 |
| 22 | 21.721 | 726.8 | 0.2763 | 24.817 | 743.5 | 0.3088 | 24.879 | 749.3 | 0.3088 |
| 23 | 17.396 | 693.7 | 0.2699 | 19.960 | 709.3 | 0.3019 | 20.010 | 709.6 | 0.3019 |
| 24 | 7.632 | 615.1 | 0.2634 | 8.715 | 621.8 | 0.2939 | 8.738 | 627.3 | 0.2938 |
| 25 | 4.294 | 588.8 | 0.2572 | 4.834 | 592.0 | 0.2849 | 4.847 | 598.9 | 0.2848 |

Table 4-38. LS1 Burnup and TH Feedback Parameters Assembly C15

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.716 | 647.2 | 0.7396 | 3.493 | 655.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.711 | 893.0 | 0.7396 | 11.708 | 936.0 | 0.7396 |
| 3 | 0.000 | | 0.7287 | 7.831 | 976.5 | 0.7287 | 16.009 | 1031.3 | 0.7240 |
| 4 | 0.000 | Data | 0.6846 | 9.036 | 1063.5 | 0.6846 | 18.136 | 1104.8 | 0.6746 |
| 5 | 0.000 | Not | 0.6264 | 9.466 | 1096.5 | 0.6264 | 18.799 | 1124.3 | 0.6133 |
| 6 | 0.000 | Required | 0.5655 | 9.511 | 1100.0 | 0.5655 | 18.888 | 1128.0 | 0.5524 |
| 7 | 0.000 | | 0.5103 | 9.451 | 1095.3 | 0.5103 | 18.873 | 1131.8 | 0.4991 |
| 8 | 0.000 | | 0.4635 | 9.445 | 1094.8 | 0.4635 | 18.952 | 1139.0 | 0.4541 |
| 9 | 0.000 | | 0.4238 | 9.780 | 1121.3 | 0.4238 | 19.572 | 1163.6 | 0.4155 |
| 10 | 0.000 | | 0.3897 | 9.735 | 1117.7 | 0.3897 | 19.632 | 1172.8 | 0.3824 |
| 11 | 0.000 | | 0.3608 | 9.608 | 1107.6 | 0.3608 | 19.599 | 1181.1 | 0.3540 |
| 12 | 0.000 | | 0.3362 | 9.441 | 1094.5 | 0.3362 | 19.519 | 1188.9 | 0.3294 |
| 13 | 0.000 | | 0.3152 | 9.252 | 1079.9 | 0.3152 | 19.407 | 1195.8 | 0.3080 |
| 14 | 0.000 | | 0.2969 | 9.047 | 1064.3 | 0.2969 | 19.263 | 1201.2 | 0.2893 |
| 15 | 0.000 | | 0.2810 | 8.828 | 1047.9 | 0.2810 | 19.081 | 1204.6 | 0.2727 |
| 16 | 0.000 | | 0.2669 | 8.594 | 1030.6 | 0.2669 | 18.847 | 1204.6 | 0.2578 |
| 17 | 0.000 | | 0.2545 | 8.346 | 1012.7 | 0.2545 | 18.538 | 1199.1 | 0.2446 |
| 18 | 0.000 | | 0.2434 | 8.083 | 994.0 | 0.2434 | 18.122 | 1185.4 | 0.2327 |
| 19 | 0.000 | | 0.2336 | 7.774 | 972.6 | 0.2336 | 17.515 | 1159.2 | 0.2222 |
| 20 | 0.000 | | 0.2248 | 7.352 | 944.1 | 0.2248 | 16.594 | 1116.6 | 0.2129 |
| 21 | 0.000 | | 0.2171 | 6.589 | 894.8 | 0.2171 | 14.936 | 1044.3 | 0.2048 |
| 22 | 0.000 | | 0.2108 | 5.686 | 840.1 | 0.2108 | 12.885 | 958.9 | 0.1982 |
| 23 | 0.000 | | 0.2057 | 4.703 | 784.4 | 0.2057 | 10.545 | 867.5 | 0.1930 |
| 24 | 0.000 | | 0.2021 | 2.141 | 656.1 | 0.2021 | 4.873 | 690.6 | 0.1892 |
| 25 | 0.000 | | 0.2006 | 1.304 | 618.6 | 0.2006 | 2.926 | 636.4 | 0.1876 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.086 | 659.6 | 0.7396 | 6.171 | 671.7 | 0.7396 | 6.912 | 605.7 | 0.7396 |
| 2 | 17.183 | 964.3 | 0.7396 | 20.662 | 984.2 | 0.7396 | 23.031 | 715.3 | 0.7396 |
| 3 | 23.034 | 1029.6 | 0.7236 | 27.283 | 1022.7 | 0.7234 | 30.347 | 736.5 | 0.7265 |
| 4 | 25.856 | 1093.5 | 0.6746 | 30.324 | 1054.9 | 0.6749 | 33.868 | 767.7 | 0.6824 |
| 5 | 26.788 | 1119.4 | 0.6136 | 31.259 | 1055.4 | 0.6148 | 35.210 | 795.1 | 0.6280 |
| 6 | 26.955 | 1127.0 | 0.5527 | 31.361 | 1045.7 | 0.5548 | 35.665 | 819.7 | 0.5736 |
| 7 | 26.933 | 1126.3 | 0.4991 | 31.268 | 1035.2 | 0.5017 | 35.862 | 840.6 | 0.5249 |
| 8 | 26.984 | 1123.6 | 0.4539 | 31.265 | 1027.4 | 0.4569 | 36.095 | 857.9 | 0.4828 |
| 9 | 27.646 | 1127.7 | 0.4155 | 31.920 | 1026.4 | 0.4188 | 36.961 | 873.8 | 0.4455 |
| 10 | 27.628 | 1120.1 | 0.3826 | 31.860 | 1020.3 | 0.3862 | 36.977 | 879.5 | 0.4127 |
| 11 | 27.470 | 1108.0 | 0.3544 | 31.665 | 1015.0 | 0.3582 | 36.771 | 878.7 | 0.3838 |
| 12 | 27.221 | 1091.8 | 0.3301 | 31.384 | 1010.4 | 0.3341 | 36.422 | 873.5 | 0.3585 |
| 13 | 26.917 | 1073.8 | 0.3090 | 31.052 | 1006.4 | 0.3130 | 35.981 | 865.3 | 0.3363 |
| 14 | 26.564 | 1054.5 | 0.2906 | 30.672 | 1002.6 | 0.2946 | 35.460 | 854.8 | 0.3167 |
| 15 | 26.151 | 1033.6 | 0.2743 | 30.231 | 998.6 | 0.2784 | 34.849 | 842.3 | 0.2993 |
| 16 | 25.657 | 1010.6 | 0.2598 | 29.699 | 993.3 | 0.2639 | 34.138 | 829.4 | 0.2839 |
| 17 | 25.044 | 984.4 | 0.2469 | 29.030 | 985.4 | 0.2510 | 33.211 | 811.1 | 0.2699 |
| 18 | 24.291 | 956.3 | 0.2355 | 28.189 | 973.3 | 0.2395 | 32.075 | 790.7 | 0.2573 |
| 19 | 23.352 | 929.4 | 0.2253 | 27.130 | 957.0 | 0.2292 | 30.772 | 774.2 | 0.2463 |
| 20 | 22.087 | 902.4 | 0.2163 | 25.694 | 934.3 | 0.2202 | 29.270 | 769.8 | 0.2376 |
| 21 | 19.925 | 864.3 | 0.2085 | 23.236 | 896.3 | 0.2124 | 26.622 | 757.3 | 0.2302 |
| 22 | 17.217 | 817.2 | 0.2021 | 20.131 | 847.9 | 0.2060 | 23.202 | 737.0 | 0.2241 |
| 23 | 13.998 | 758.3 | 0.1969 | 16.358 | 785.0 | 0.2007 | 18.855 | 701.3 | 0.2185 |
| 24 | 6.417 | 644.5 | 0.1932 | 7.486 | 655.9 | 0.1970 | 8.607 | 622.4 | 0.2143 |
| 25 | 3.793 | 608.0 | 0.1914 | 4.393 | 614.0 | 0.1950 | 5.077 | 598.9 | 0.2131 |

Table 4-38. LS1 Burnup and TH Feedback Parameters Assembly C15 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 7.365 | 607.5 | 0.7396 | 8.806 | 653.4 | 0.7396 |
| 2 | 24.458 | 719.5 | 0.7396 | 28.517 | 854.7 | 0.7396 |
| 3 | 32.206 | 742.8 | 0.7280 | 36.962 | 861.3 | 0.7288 |
| 4 | 36.024 | 776.0 | 0.6861 | 41.001 | 878.4 | 0.6884 |
| 5 | 37.588 | 801.7 | 0.6342 | 42.683 | 887.6 | 0.6384 |
| 6 | 38.202 | 820.6 | 0.5822 | 43.424 | 897.7 | 0.5880 |
| 7 | 38.513 | 834.5 | 0.5351 | 43.890 | 910.2 | 0.5422 |
| 8 | 38.833 | 845.3 | 0.4938 | 44.391 | 925.0 | 0.5016 |
| 9 | 39.785 | 856.1 | 0.4567 | 45.579 | 944.8 | 0.4648 |
| 10 | 39.841 | 861.1 | 0.4238 | 45.834 | 961.7 | 0.4321 |
| 11 | 39.654 | 863.5 | 0.3947 | 45.845 | 978.9 | 0.4029 |
| 12 | 39.321 | 865.6 | 0.3691 | 45.707 | 996.2 | 0.3772 |
| 13 | 38.909 | 869.3 | 0.3467 | 45.483 | 1013.2 | 0.3545 |
| 14 | 38.507 | 884.7 | 0.3272 | 45.245 | 1028.2 | 0.3345 |
| 15 | 38.402 | 953.5 | 0.3109 | 45.213 | 1035.0 | 0.3174 |
| 16 | 38.523 | 1079.6 | 0.2968 | 45.321 | 1033.8 | 0.3026 |
| 17 | 37.711 | 1098.4 | 0.2819 | 44.588 | 1041.2 | 0.2874 |
| 18 | 36.391 | 1068.5 | 0.2680 | 43.318 | 1045.9 | 0.2735 |
| 19 | 34.822 | 1026.8 | 0.2559 | 41.692 | 1040.5 | 0.2611 |
| 20 | 33.001 | 979.1 | 0.2460 | 39.640 | 1019.1 | 0.2507 |
| 21 | 29.952 | 922.5 | 0.2378 | 36.109 | 976.0 | 0.2420 |
| 22 | 26.074 | 862.1 | 0.2311 | 31.550 | 918.3 | 0.2349 |
| 23 | 21.141 | 790.9 | 0.2251 | 25.607 | 839.4 | 0.2285 |
| 24 | 9.651 | 658.9 | 0.2208 | 11.797 | 683.6 | 0.2242 |
| 25 | 5.649 | 614.4 | 0.2190 | 6.850 | 628.4 | 0.2221 |

Table 4-39. LS1 Burnup and TH Feedback Parameters Assembly C16

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.693 | 646.0 | 0.7396 | 3.305 | 646.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.595 | 884.8 | 0.7396 | 11.013 | 892.1 | 0.7396 |
| 3 | 0.000 | | 0.7302 | 7.640 | 963.4 | 0.7302 | 15.141 | 980.6 | 0.7284 |
| 4 | 0.000 | Data | 0.6881 | 8.840 | 1048.8 | 0.6881 | 17.323 | 1055.0 | 0.6845 |
| 5 | 0.000 | Not | 0.6317 | 9.328 | 1085.8 | 0.6317 | 18.124 | 1080.0 | 0.6271 |
| 6 | 0.000 | Required | 0.5714 | 9.457 | 1095.8 | 0.5714 | 18.344 | 1087.3 | 0.5675 |
| 7 | 0.000 | | 0.5155 | 9.473 | 1097.0 | 0.5155 | 18.427 | 1092.8 | 0.5133 |
| 8 | 0.000 | | 0.4677 | 9.523 | 1100.9 | 0.4677 | 18.582 | 1101.4 | 0.4670 |
| 9 | 0.000 | | 0.4269 | 9.898 | 1130.7 | 0.4269 | 19.251 | 1125.9 | 0.4272 |
| 10 | 0.000 | | 0.3920 | 9.874 | 1128.8 | 0.3920 | 19.344 | 1135.9 | 0.3930 |
| 11 | 0.000 | | 0.3624 | 9.757 | 1119.4 | 0.3624 | 19.330 | 1144.7 | 0.3636 |
| 12 | 0.000 | | 0.3372 | 9.587 | 1105.9 | 0.3372 | 19.253 | 1152.7 | 0.3383 |
| 13 | 0.000 | | 0.3156 | 9.383 | 1090.0 | 0.3156 | 19.135 | 1160.1 | 0.3163 |
| 14 | 0.000 | | 0.2970 | 9.156 | 1072.6 | 0.2970 | 18.982 | 1166.6 | 0.2970 |
| 15 | 0.000 | | 0.2808 | 8.908 | 1053.8 | 0.2808 | 18.794 | 1171.9 | 0.2799 |
| 16 | 0.000 | | 0.2666 | 8.637 | 1033.8 | 0.2666 | 18.566 | 1175.6 | 0.2647 |
| 17 | 0.000 | | 0.2541 | 8.336 | 1012.0 | 0.2541 | 18.267 | 1175.8 | 0.2510 |
| 18 | 0.000 | | 0.2431 | 7.991 | 987.6 | 0.2431 | 17.837 | 1168.3 | 0.2389 |
| 19 | 0.000 | | 0.2333 | 7.571 | 958.8 | 0.2333 | 17.166 | 1146.6 | 0.2280 |
| 20 | 0.000 | | 0.2249 | 7.033 | 923.2 | 0.2249 | 16.136 | 1105.1 | 0.2185 |
| 21 | 0.000 | | 0.2176 | 6.199 | 870.7 | 0.2176 | 14.384 | 1031.8 | 0.2104 |
| 22 | 0.000 | | 0.2117 | 5.292 | 817.3 | 0.2117 | 12.310 | 946.1 | 0.2038 |
| 23 | 0.000 | | 0.2069 | 4.364 | 766.1 | 0.2069 | 10.044 | 857.2 | 0.1986 |
| 24 | 0.000 | | 0.2036 | 1.985 | 649.0 | 0.2036 | 4.642 | 686.8 | 0.1949 |
| 25 | 0.000 | | 0.2022 | 1.212 | 614.6 | 0.2022 | 2.785 | 634.1 | 0.1933 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.053 | 670.0 | 0.7396 | 6.139 | 671.8 | 0.7396 | 7.544 | 648.6 | 0.7396 |
| 2 | 16.975 | 1010.3 | 0.7396 | 20.450 | 983.6 | 0.7396 | 24.754 | 866.8 | 0.7396 |
| 3 | 22.691 | 1077.5 | 0.7249 | 26.932 | 1021.6 | 0.7243 | 32.258 | 895.7 | 0.7261 |
| 4 | 25.431 | 1131.0 | 0.6782 | 29.920 | 1058.1 | 0.6776 | 35.789 | 939.0 | 0.6819 |
| 5 | 26.302 | 1138.0 | 0.6192 | 30.867 | 1069.5 | 0.6190 | 37.095 | 968.9 | 0.6263 |
| 6 | 26.423 | 1128.2 | 0.5593 | 31.010 | 1072.9 | 0.5595 | 37.482 | 989.8 | 0.5691 |
| 7 | 26.378 | 1115.7 | 0.5058 | 30.973 | 1074.1 | 0.5062 | 37.598 | 1003.1 | 0.5169 |
| 8 | 26.421 | 1104.9 | 0.4605 | 31.007 | 1072.7 | 0.4612 | 37.732 | 1012.0 | 0.4719 |
| 9 | 27.072 | 1103.2 | 0.4220 | 31.675 | 1075.3 | 0.4229 | 38.511 | 1021.9 | 0.4331 |
| 10 | 27.057 | 1092.9 | 0.3889 | 31.631 | 1070.9 | 0.3900 | 38.445 | 1019.9 | 0.3997 |
| 11 | 26.921 | 1081.3 | 0.3605 | 31.468 | 1066.8 | 0.3617 | 38.194 | 1012.1 | 0.3710 |
| 12 | 26.712 | 1069.0 | 0.3360 | 31.232 | 1062.7 | 0.3374 | 37.827 | 1000.5 | 0.3462 |
| 13 | 26.450 | 1055.8 | 0.3147 | 30.946 | 1059.1 | 0.3161 | 37.373 | 985.9 | 0.3246 |
| 14 | 26.138 | 1041.3 | 0.2960 | 30.606 | 1054.9 | 0.2975 | 36.836 | 969.1 | 0.3056 |
| 15 | 25.766 | 1024.9 | 0.2796 | 30.200 | 1049.9 | 0.2810 | 36.198 | 949.6 | 0.2889 |
| 16 | 25.317 | 1005.5 | 0.2649 | 29.703 | 1042.7 | 0.2664 | 35.426 | 927.1 | 0.2739 |
| 17 | 24.748 | 982.3 | 0.2517 | 29.064 | 1032.5 | 0.2532 | 34.463 | 901.4 | 0.2605 |
| 18 | 24.025 | 957.8 | 0.2400 | 28.245 | 1018.5 | 0.2414 | 33.303 | 875.1 | 0.2487 |
| 19 | 23.076 | 935.2 | 0.2296 | 27.171 | 1000.7 | 0.2310 | 31.918 | 851.8 | 0.2384 |
| 20 | 21.771 | 913.4 | 0.2204 | 25.694 | 976.7 | 0.2218 | 30.100 | 827.0 | 0.2293 |
| 21 | 19.573 | 879.2 | 0.2126 | 23.186 | 935.1 | 0.2138 | 27.137 | 795.1 | 0.2214 |
| 22 | 16.873 | 833.5 | 0.2061 | 20.066 | 881.6 | 0.2073 | 23.475 | 758.8 | 0.2148 |
| 23 | 13.715 | 772.5 | 0.2009 | 16.320 | 812.2 | 0.2020 | 19.023 | 713.9 | 0.2093 |
| 24 | 6.299 | 650.8 | 0.1973 | 7.494 | 667.5 | 0.1984 | 8.705 | 627.3 | 0.2056 |
| 25 | 3.723 | 611.7 | 0.1956 | 4.403 | 621.0 | 0.1967 | 5.065 | 597.7 | 0.2034 |

Table 4-39. LS1 Burnup and TH Feedback Parameters Assembly C16 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 8.240 | 634.1 | 0.7396 | 9.192 | 620.6 | 0.7396 |
| 2 | 26.803 | 799.6 | 0.7396 | 29.442 | 739.8 | 0.7396 |
| 3 | 34.808 | 822.2 | 0.7273 | 37.917 | 744.4 | 0.7291 |
| 4 | 38.645 | 860.1 | 0.6848 | 41.964 | 758.3 | 0.6890 |
| 5 | 40.171 | 888.5 | 0.6312 | 43.672 | 770.6 | 0.6384 |
| 6 | 40.723 | 910.4 | 0.5757 | 44.425 | 784.5 | 0.5862 |
| 7 | 40.959 | 926.8 | 0.5246 | 44.889 | 800.5 | 0.5379 |
| 8 | 41.188 | 939.9 | 0.4800 | 45.360 | 817.8 | 0.4955 |
| 9 | 42.080 | 955.8 | 0.4411 | 46.529 | 838.1 | 0.4582 |
| 10 | 42.068 | 963.5 | 0.4075 | 46.755 | 856.0 | 0.4255 |
| 11 | 41.849 | 968.1 | 0.3785 | 46.757 | 873.0 | 0.3971 |
| 12 | 41.505 | 971.4 | 0.3534 | 46.635 | 890.4 | 0.3722 |
| 13 | 41.070 | 974.2 | 0.3315 | 46.471 | 912.2 | 0.3504 |
| 14 | 40.540 | 975.2 | 0.3122 | 46.149 | 929.3 | 0.3309 |
| 15 | 39.885 | 972.7 | 0.2952 | 45.670 | 944.0 | 0.3134 |
| 16 | 39.058 | 964.8 | 0.2799 | 44.997 | 957.1 | 0.2978 |
| 17 | 37.993 | 950.3 | 0.2663 | 44.048 | 967.1 | 0.2837 |
| 18 | 36.687 | 929.9 | 0.2542 | 42.793 | 971.5 | 0.2711 |
| 19 | 35.128 | 906.3 | 0.2436 | 41.188 | 967.5 | 0.2600 |
| 20 | 33.111 | 880.0 | 0.2343 | 39.003 | 953.1 | 0.2500 |
| 21 | 29.869 | 844.5 | 0.2263 | 35.360 | 919.5 | 0.2414 |
| 22 | 25.860 | 802.5 | 0.2197 | 30.755 | 872.0 | 0.2342 |
| 23 | 20.933 | 748.4 | 0.2140 | 24.900 | 803.1 | 0.2280 |
| 24 | 9.580 | 642.7 | 0.2102 | 11.425 | 665.5 | 0.2240 |
| 25 | 5.547 | 606.1 | 0.2079 | 6.553 | 617.5 | 0.2208 |

Table 4-40. LS1 Burnup and TH Feedback Parameters Assembly C17

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.693 | 646.0 | 0.7396 | 3.141 | 637.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.624 | 886.8 | 0.7396 | 10.561 | 857.1 | 0.7396 |
| 3 | 0.000 | | 0.7300 | 7.728 | 969.4 | 0.7300 | 14.728 | 944.9 | 0.7308 |
| 4 | 0.000 | Data | 0.6876 | 8.959 | 1057.7 | 0.6876 | 17.006 | 1021.2 | 0.6894 |
| 5 | 0.000 | Not | 0.6308 | 9.429 | 1093.6 | 0.6308 | 17.841 | 1049.4 | 0.6344 |
| 6 | 0.000 | Required | 0.5704 | 9.517 | 1100.5 | 0.5704 | 18.031 | 1057.4 | 0.5761 |
| 7 | 0.000 | | 0.5146 | 9.491 | 1098.4 | 0.5146 | 18.054 | 1061.3 | 0.5223 |
| 8 | 0.000 | | 0.4671 | 9.513 | 1100.1 | 0.4671 | 18.159 | 1067.9 | 0.4759 |
| 9 | 0.000 | | 0.4267 | 9.872 | 1128.6 | 0.4267 | 18.788 | 1089.7 | 0.4360 |
| 10 | 0.000 | | 0.3920 | 9.837 | 1125.8 | 0.3920 | 18.844 | 1097.1 | 0.4016 |
| 11 | 0.000 | | 0.3625 | 9.707 | 1115.4 | 0.3625 | 18.787 | 1103.2 | 0.3722 |
| 12 | 0.000 | | 0.3375 | 9.525 | 1101.1 | 0.3375 | 18.671 | 1108.6 | 0.3468 |
| 13 | 0.000 | | 0.3161 | 9.312 | 1084.5 | 0.3161 | 18.518 | 1113.6 | 0.3247 |
| 14 | 0.000 | | 0.2976 | 9.072 | 1066.2 | 0.2976 | 18.329 | 1117.9 | 0.3054 |
| 15 | 0.000 | | 0.2815 | 8.803 | 1046.0 | 0.2815 | 18.100 | 1121.2 | 0.2884 |
| 16 | 0.000 | | 0.2676 | 8.498 | 1023.7 | 0.2676 | 17.819 | 1123.2 | 0.2732 |
| 17 | 0.000 | | 0.2552 | 8.144 | 998.3 | 0.2552 | 17.451 | 1122.1 | 0.2597 |
| 18 | 0.000 | | 0.2444 | 7.722 | 969.0 | 0.2444 | 16.929 | 1113.7 | 0.2476 |
| 19 | 0.000 | | 0.2350 | 7.209 | 934.7 | 0.2350 | 16.148 | 1091.6 | 0.2369 |
| 20 | 0.000 | | 0.2268 | 6.580 | 894.3 | 0.2268 | 15.012 | 1051.0 | 0.2275 |
| 21 | 0.000 | | 0.2200 | 5.695 | 840.6 | 0.2200 | 13.210 | 981.6 | 0.2196 |
| 22 | 0.000 | | 0.2145 | 4.782 | 788.8 | 0.2145 | 11.155 | 902.1 | 0.2131 |
| 23 | 0.000 | | 0.2101 | 3.886 | 741.1 | 0.2101 | 8.994 | 821.9 | 0.2079 |
| 24 | 0.000 | | 0.2071 | 1.740 | 637.9 | 0.2071 | 4.099 | 672.0 | 0.2044 |
| 25 | 0.000 | | 0.2059 | 1.058 | 607.9 | 0.2059 | 2.440 | 625.2 | 0.2028 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.341 | 633.9 | 0.7396 | 5.040 | 630.3 | 0.7396 | 6.142 | 628.7 | 0.7396 |
| 2 | 14.730 | 850.2 | 0.7396 | 17.032 | 817.4 | 0.7396 | 20.568 | 803.6 | 0.7396 |
| 3 | 20.048 | 889.1 | 0.7329 | 22.849 | 834.7 | 0.7340 | 27.292 | 829.7 | 0.7352 |
| 4 | 22.748 | 921.8 | 0.6950 | 25.717 | 854.5 | 0.6980 | 30.695 | 869.0 | 0.7014 |
| 5 | 23.693 | 930.6 | 0.6445 | 26.717 | 861.0 | 0.6500 | 32.113 | 901.1 | 0.6561 |
| 6 | 23.885 | 930.7 | 0.5904 | 26.937 | 864.4 | 0.5985 | 32.691 | 929.6 | 0.6070 |
| 7 | 23.874 | 928.0 | 0.5394 | 26.948 | 867.1 | 0.5495 | 33.009 | 954.9 | 0.5594 |
| 8 | 23.941 | 925.0 | 0.4944 | 27.032 | 869.1 | 0.5056 | 33.363 | 977.7 | 0.5157 |
| 9 | 24.603 | 927.6 | 0.4548 | 27.743 | 875.1 | 0.4665 | 34.356 | 1002.1 | 0.4760 |
| 10 | 24.612 | 923.9 | 0.4206 | 27.762 | 876.3 | 0.4326 | 34.489 | 1012.2 | 0.4413 |
| 11 | 24.488 | 918.6 | 0.3911 | 27.642 | 876.8 | 0.4031 | 34.366 | 1011.9 | 0.4110 |
| 12 | 24.294 | 912.5 | 0.3658 | 27.445 | 876.5 | 0.3777 | 34.079 | 1003.9 | 0.3848 |
| 13 | 24.078 | 907.6 | 0.3438 | 27.220 | 875.4 | 0.3556 | 33.702 | 990.7 | 0.3619 |
| 14 | 23.791 | 900.0 | 0.3243 | 26.925 | 874.4 | 0.3358 | 33.208 | 973.6 | 0.3416 |
| 15 | 23.441 | 890.7 | 0.3068 | 26.562 | 872.8 | 0.3182 | 32.598 | 952.8 | 0.3235 |
| 16 | 23.019 | 880.0 | 0.2912 | 26.117 | 870.0 | 0.3024 | 31.852 | 928.1 | 0.3075 |
| 17 | 22.488 | 867.9 | 0.2773 | 25.547 | 865.3 | 0.2883 | 30.920 | 899.3 | 0.2931 |
| 18 | 21.786 | 854.6 | 0.2649 | 24.791 | 858.8 | 0.2758 | 29.772 | 869.2 | 0.2806 |
| 19 | 20.818 | 841.1 | 0.2541 | 23.753 | 850.4 | 0.2649 | 28.395 | 844.1 | 0.2699 |
| 20 | 19.466 | 825.7 | 0.2449 | 22.303 | 838.9 | 0.2556 | 26.595 | 818.9 | 0.2607 |
| 21 | 17.300 | 800.5 | 0.2372 | 19.943 | 816.5 | 0.2480 | 23.795 | 788.4 | 0.2530 |
| 22 | 14.738 | 766.8 | 0.2310 | 17.111 | 786.4 | 0.2417 | 20.449 | 754.1 | 0.2467 |
| 23 | 11.857 | 721.2 | 0.2254 | 13.807 | 741.5 | 0.2361 | 16.478 | 712.0 | 0.2410 |
| 24 | 5.361 | 629.1 | 0.2214 | 6.220 | 636.8 | 0.2318 | 7.398 | 625.5 | 0.2366 |
| 25 | 3.134 | 598.9 | 0.2188 | 3.603 | 602.7 | 0.2286 | 4.259 | 597.4 | 0.2335 |

Table 4-40. LS1 Burnup and TH Feedback Parameters Assembly C17 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.553 | 603.0 | 0.7396 | 7.849 | 643.5 | 0.7396 | 7.857 | 585.8 | 0.7396 |
| 2 | 21.891 | 706.8 | 0.7396 | 25.682 | 831.9 | 0.7396 | 25.703 | 629.0 | 0.7396 |
| 3 | 29.029 | 729.7 | 0.7363 | 33.512 | 840.7 | 0.7366 | 33.536 | 630.2 | 0.7366 |
| 4 | 32.726 | 761.8 | 0.7041 | 37.374 | 853.1 | 0.7052 | 37.401 | 638.9 | 0.7052 |
| 5 | 34.374 | 788.0 | 0.6611 | 39.031 | 853.7 | 0.6636 | 39.059 | 641.9 | 0.6636 |
| 6 | 35.129 | 808.8 | 0.6142 | 39.789 | 854.0 | 0.6182 | 39.821 | 653.7 | 0.6182 |
| 7 | 35.589 | 825.8 | 0.5685 | 40.289 | 857.0 | 0.5737 | 40.324 | 662.7 | 0.5738 |
| 8 | 36.073 | 841.8 | 0.5261 | 40.860 | 863.7 | 0.5323 | 40.898 | 671.9 | 0.5325 |
| 9 | 37.202 | 858.8 | 0.4872 | 42.162 | 877.0 | 0.4940 | 42.203 | 681.1 | 0.4942 |
| 10 | 37.418 | 869.4 | 0.4526 | 42.541 | 889.9 | 0.4600 | 42.584 | 687.3 | 0.4602 |
| 11 | 37.341 | 875.3 | 0.4222 | 42.648 | 904.6 | 0.4298 | 42.694 | 696.8 | 0.4300 |
| 12 | 37.077 | 878.3 | 0.3956 | 42.589 | 921.3 | 0.4034 | 42.636 | 700.0 | 0.4036 |
| 13 | 36.699 | 878.2 | 0.3723 | 42.431 | 939.5 | 0.3800 | 42.479 | 703.2 | 0.3803 |
| 14 | 36.177 | 874.6 | 0.3516 | 42.141 | 959.2 | 0.3592 | 42.189 | 703.2 | 0.3593 |
| 15 | 35.503 | 866.3 | 0.3330 | 41.698 | 979.3 | 0.3403 | 41.746 | 703.1 | 0.3405 |
| 16 | 34.652 | 853.0 | 0.3165 | 41.058 | 998.0 | 0.3234 | 41.106 | 703.2 | 0.3236 |
| 17 | 33.572 | 834.6 | 0.3016 | 40.142 | 1012.8 | 0.3081 | 40.189 | 700.0 | 0.3083 |
| 18 | 32.242 | 812.6 | 0.2886 | 38.893 | 1020.2 | 0.2945 | 38.940 | 700.0 | 0.2946 |
| 19 | 30.680 | 790.8 | 0.2775 | 37.292 | 1016.7 | 0.2826 | 37.338 | 696.8 | 0.2827 |
| 20 | 28.697 | 769.8 | 0.2680 | 35.131 | 1000.5 | 0.2723 | 35.175 | 690.5 | 0.2724 |
| 21 | 25.675 | 745.1 | 0.2601 | 31.699 | 964.4 | 0.2637 | 31.741 | 684.2 | 0.2638 |
| 22 | 22.074 | 717.8 | 0.2537 | 27.439 | 909.3 | 0.2565 | 27.476 | 668.8 | 0.2567 |
| 23 | 17.767 | 683.2 | 0.2479 | 22.144 | 832.8 | 0.2500 | 22.174 | 647.8 | 0.2501 |
| 24 | 7.983 | 615.6 | 0.2436 | 10.043 | 678.4 | 0.2454 | 10.056 | 598.9 | 0.2455 |
| 25 | 4.684 | 601.0 | 0.2422 | 5.910 | 629.8 | 0.2447 | 5.917 | 582.2 | 0.2448 |

Table 4-41. LS1 Burnup and TH Feedback Parameters Assembly C18

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.723 | 647.6 | 0.7396 | 3.519 | 656.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.741 | 895.1 | 0.7396 | 11.820 | 942.4 | 0.7396 |
| 3 | 0.000 | | 0.7284 | 7.893 | 980.8 | 0.7284 | 16.200 | 1041.2 | 0.7235 |
| 4 | 0.000 | Data | 0.6837 | 9.148 | 1072.0 | 0.6837 | 18.398 | 1117.3 | 0.6735 |
| 5 | 0.000 | Not | 0.6245 | 9.619 | 1108.5 | 0.6245 | 19.095 | 1136.4 | 0.6110 |
| 6 | 0.000 | Required | 0.5626 | 9.695 | 1114.5 | 0.5626 | 19.196 | 1138.5 | 0.5493 |
| 7 | 0.000 | | 0.5066 | 9.661 | 1111.8 | 0.5066 | 19.188 | 1140.7 | 0.4955 |
| 8 | 0.000 | | 0.4594 | 9.677 | 1113.1 | 0.4594 | 19.275 | 1146.8 | 0.4502 |
| 9 | 0.000 | | 0.4193 | 10.033 | 1141.7 | 0.4193 | 19.903 | 1170.5 | 0.4116 |
| 10 | 0.000 | | 0.3850 | 9.989 | 1138.1 | 0.3850 | 19.958 | 1179.2 | 0.3784 |
| 11 | 0.000 | | 0.3560 | 9.851 | 1126.9 | 0.3560 | 19.908 | 1187.0 | 0.3500 |
| 12 | 0.000 | | 0.3314 | 9.663 | 1111.9 | 0.3314 | 19.800 | 1194.1 | 0.3256 |
| 13 | 0.000 | | 0.3104 | 9.449 | 1095.1 | 0.3104 | 19.659 | 1200.7 | 0.3044 |
| 14 | 0.000 | | 0.2922 | 9.217 | 1077.2 | 0.2922 | 19.485 | 1205.9 | 0.2858 |
| 15 | 0.000 | | 0.2763 | 8.968 | 1058.3 | 0.2763 | 19.274 | 1209.4 | 0.2693 |
| 16 | 0.000 | | 0.2625 | 8.701 | 1038.5 | 0.2625 | 19.010 | 1209.7 | 0.2546 |
| 17 | 0.000 | | 0.2503 | 8.410 | 1017.3 | 0.2503 | 18.662 | 1204.5 | 0.2415 |
| 18 | 0.000 | | 0.2394 | 8.080 | 993.8 | 0.2394 | 18.176 | 1190.5 | 0.2299 |
| 19 | 0.000 | | 0.2299 | 7.680 | 966.2 | 0.2299 | 17.464 | 1162.9 | 0.2195 |
| 20 | 0.000 | | 0.2214 | 7.160 | 931.4 | 0.2214 | 16.412 | 1117.5 | 0.2104 |
| 21 | 0.000 | | 0.2142 | 6.331 | 878.8 | 0.2142 | 14.643 | 1041.6 | 0.2026 |
| 22 | 0.000 | | 0.2083 | 5.408 | 823.9 | 0.2083 | 12.528 | 953.3 | 0.1962 |
| 23 | 0.000 | | 0.2036 | 4.444 | 770.4 | 0.2036 | 10.185 | 861.1 | 0.1912 |
| 24 | 0.000 | | 0.2002 | 2.010 | 650.1 | 0.2002 | 4.682 | 687.6 | 0.1875 |
| 25 | 0.000 | | 0.1989 | 1.226 | 615.2 | 0.1989 | 2.811 | 634.7 | 0.1861 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.248 | 668.7 | 0.7396 | 6.464 | 686.3 | 0.7396 | 7.497 | 624.3 | 0.7396 |
| 2 | 17.657 | 998.3 | 0.7396 | 21.471 | 1037.2 | 0.7396 | 24.631 | 774.2 | 0.7396 |
| 3 | 23.509 | 1055.2 | 0.7224 | 28.087 | 1071.5 | 0.7210 | 32.049 | 795.9 | 0.7235 |
| 4 | 26.207 | 1102.0 | 0.6724 | 30.975 | 1100.8 | 0.6707 | 35.444 | 831.5 | 0.6767 |
| 5 | 26.954 | 1106.8 | 0.6107 | 31.719 | 1100.4 | 0.6092 | 36.612 | 862.6 | 0.6196 |
| 6 | 26.952 | 1097.0 | 0.5498 | 31.670 | 1093.0 | 0.5488 | 36.929 | 890.5 | 0.5632 |
| 7 | 26.827 | 1085.9 | 0.4966 | 31.500 | 1086.1 | 0.4960 | 37.063 | 914.3 | 0.5131 |
| 8 | 26.847 | 1079.6 | 0.4519 | 31.490 | 1081.4 | 0.4517 | 37.306 | 934.7 | 0.4704 |
| 9 | 27.515 | 1083.3 | 0.4139 | 32.175 | 1084.1 | 0.4141 | 38.233 | 954.6 | 0.4333 |
| 10 | 27.498 | 1076.6 | 0.3813 | 32.135 | 1080.5 | 0.3817 | 38.287 | 962.5 | 0.4009 |
| 11 | 27.335 | 1066.1 | 0.3533 | 31.948 | 1076.9 | 0.3540 | 38.097 | 962.2 | 0.3725 |
| 12 | 27.092 | 1053.7 | 0.3293 | 31.681 | 1073.2 | 0.3301 | 37.763 | 956.6 | 0.3478 |
| 13 | 26.803 | 1040.2 | 0.3083 | 31.368 | 1069.5 | 0.3093 | 37.357 | 948.9 | 0.3263 |
| 14 | 26.473 | 1026.3 | 0.2900 | 31.013 | 1065.8 | 0.2910 | 37.004 | 949.0 | 0.3078 |
| 15 | 26.098 | 1011.8 | 0.2738 | 30.606 | 1060.9 | 0.2749 | 37.006 | 983.6 | 0.2933 |
| 16 | 25.662 | 996.9 | 0.2593 | 30.125 | 1054.2 | 0.2604 | 36.530 | 984.0 | 0.2784 |
| 17 | 25.136 | 981.7 | 0.2465 | 29.530 | 1043.9 | 0.2476 | 35.632 | 958.3 | 0.2642 |
| 18 | 24.480 | 967.5 | 0.2350 | 28.769 | 1028.5 | 0.2361 | 34.462 | 924.7 | 0.2512 |
| 19 | 23.630 | 956.0 | 0.2248 | 27.777 | 1008.1 | 0.2259 | 33.081 | 893.9 | 0.2402 |
| 20 | 22.398 | 941.4 | 0.2159 | 26.352 | 981.0 | 0.2170 | 31.233 | 861.7 | 0.2304 |
| 21 | 20.214 | 908.4 | 0.2083 | 23.844 | 937.3 | 0.2093 | 28.195 | 823.1 | 0.2221 |
| 22 | 17.440 | 858.6 | 0.2019 | 20.639 | 882.4 | 0.2029 | 24.398 | 782.0 | 0.2155 |
| 23 | 14.128 | 790.6 | 0.1967 | 16.731 | 812.0 | 0.1977 | 19.720 | 731.8 | 0.2098 |
| 24 | 6.446 | 656.8 | 0.1930 | 7.636 | 667.0 | 0.1940 | 8.988 | 635.1 | 0.2058 |
| 25 | 3.800 | 614.4 | 0.1912 | 4.477 | 620.7 | 0.1922 | 5.219 | 602.0 | 0.2032 |

Table 4-41. LS1 Burnup and TH Feedback Parameters Assembly C18 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 7.910 | 603.2 | 0.7396 | 8.878 | 621.6 | 0.7396 |
| 2 | 25.886 | 698.6 | 0.7396 | 28.622 | 747.2 | 0.7396 |
| 3 | 33.677 | 718.1 | 0.7250 | 36.949 | 755.2 | 0.7272 |
| 4 | 37.353 | 748.3 | 0.6803 | 40.851 | 770.4 | 0.6853 |
| 5 | 38.763 | 775.4 | 0.6261 | 42.407 | 780.4 | 0.6343 |
| 6 | 39.281 | 798.6 | 0.5725 | 43.068 | 790.4 | 0.5837 |
| 7 | 39.575 | 817.6 | 0.5246 | 43.523 | 801.7 | 0.5382 |
| 8 | 39.953 | 834.0 | 0.4833 | 44.080 | 814.5 | 0.4984 |
| 9 | 41.012 | 850.4 | 0.4466 | 45.363 | 830.9 | 0.4627 |
| 10 | 41.143 | 860.1 | 0.4144 | 45.693 | 845.7 | 0.4310 |
| 11 | 41.000 | 866.1 | 0.3859 | 45.750 | 860.8 | 0.4028 |
| 12 | 40.696 | 869.9 | 0.3608 | 45.648 | 876.4 | 0.3779 |
| 13 | 40.303 | 871.6 | 0.3388 | 45.455 | 892.2 | 0.3557 |
| 14 | 39.934 | 869.5 | 0.3198 | 45.271 | 907.0 | 0.3364 |
| 15 | 39.852 | 858.8 | 0.3043 | 45.314 | 917.2 | 0.3200 |
| 16 | 39.290 | 848.0 | 0.2889 | 44.909 | 930.1 | 0.3041 |
| 17 | 38.286 | 834.9 | 0.2741 | 44.058 | 942.9 | 0.2891 |
| 18 | 36.983 | 818.7 | 0.2609 | 42.879 | 953.4 | 0.2757 |
| 19 | 35.473 | 803.3 | 0.2495 | 41.516 | 966.0 | 0.2642 |
| 20 | 33.561 | 795.8 | 0.2397 | 39.636 | 968.8 | 0.2543 |
| 21 | 30.475 | 790.2 | 0.2319 | 36.453 | 960.4 | 0.2465 |
| 22 | 26.843 | 809.6 | 0.2269 | 32.351 | 920.9 | 0.2408 |
| 23 | 21.927 | 781.8 | 0.2219 | 26.539 | 850.3 | 0.2352 |
| 24 | 10.037 | 659.4 | 0.2182 | 12.273 | 689.0 | 0.2313 |
| 25 | 5.808 | 615.9 | 0.2152 | 7.102 | 633.7 | 0.2284 |

Table 4-42. LS1 Burnup and TH Feedback Parameters Assembly C19

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.713 | 647.1 | 0.7396 | 3.387 | 649.7 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.696 | 891.9 | 0.7396 | 11.365 | 910.9 | 0.7396 |
| 3 | 0.000 | | 0.7293 | 7.806 | 974.8 | 0.7293 | 15.626 | 1004.1 | 0.7267 |
| 4 | 0.000 | Data | 0.6858 | 9.026 | 1062.7 | 0.6858 | 17.811 | 1079.1 | 0.6805 |
| 5 | 0.000 | Not | 0.6280 | 9.494 | 1098.7 | 0.6280 | 18.546 | 1100.8 | 0.6211 |
| 6 | 0.000 | Required | 0.5669 | 9.591 | 1106.3 | 0.5669 | 18.692 | 1104.9 | 0.5605 |
| 7 | 0.000 | | 0.5108 | 9.579 | 1105.3 | 0.5108 | 18.716 | 1107.9 | 0.5062 |
| 8 | 0.000 | | 0.4633 | 9.611 | 1107.8 | 0.4633 | 18.825 | 1114.3 | 0.4604 |
| 9 | 0.000 | | 0.4229 | 9.974 | 1136.9 | 0.4229 | 19.462 | 1137.4 | 0.4212 |
| 10 | 0.000 | | 0.3883 | 9.938 | 1133.9 | 0.3883 | 19.525 | 1145.9 | 0.3874 |
| 11 | 0.000 | | 0.3590 | 9.807 | 1123.4 | 0.3590 | 19.484 | 1153.6 | 0.3585 |
| 12 | 0.000 | | 0.3341 | 9.625 | 1108.9 | 0.3341 | 19.382 | 1160.6 | 0.3336 |
| 13 | 0.000 | | 0.3128 | 9.411 | 1092.2 | 0.3128 | 19.243 | 1167.1 | 0.3120 |
| 14 | 0.000 | | 0.2944 | 9.174 | 1073.9 | 0.2944 | 19.069 | 1172.7 | 0.2930 |
| 15 | 0.000 | | 0.2784 | 8.913 | 1054.2 | 0.2784 | 18.858 | 1177.1 | 0.2762 |
| 16 | 0.000 | | 0.2645 | 8.624 | 1032.8 | 0.2645 | 18.602 | 1180.0 | 0.2613 |
| 17 | 0.000 | | 0.2522 | 8.296 | 1009.1 | 0.2522 | 18.265 | 1179.2 | 0.2479 |
| 18 | 0.000 | | 0.2413 | 7.910 | 982.0 | 0.2413 | 17.783 | 1170.7 | 0.2359 |
| 19 | 0.000 | | 0.2318 | 7.438 | 949.8 | 0.2318 | 17.043 | 1147.4 | 0.2253 |
| 20 | 0.000 | | 0.2236 | 6.847 | 911.2 | 0.2236 | 15.941 | 1104.3 | 0.2160 |
| 21 | 0.000 | | 0.2166 | 5.980 | 857.5 | 0.2166 | 14.132 | 1029.3 | 0.2081 |
| 22 | 0.000 | | 0.2110 | 5.063 | 804.3 | 0.2110 | 12.021 | 941.9 | 0.2017 |
| 23 | 0.000 | | 0.2065 | 4.139 | 754.2 | 0.2065 | 9.742 | 852.4 | 0.1967 |
| 24 | 0.000 | | 0.2034 | 1.861 | 643.4 | 0.2034 | 4.464 | 684.1 | 0.1931 |
| 25 | 0.000 | | 0.2021 | 1.133 | 611.2 | 0.2021 | 2.671 | 632.5 | 0.1915 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.289 | 615.0 | 0.7396 | 4.805 | 611.4 | 0.7396 | 5.496 | 602.5 | 0.7396 |
| 2 | 14.512 | 769.6 | 0.7396 | 16.218 | 743.0 | 0.7396 | 18.583 | 715.0 | 0.7396 |
| 3 | 19.654 | 796.3 | 0.7310 | 21.736 | 755.2 | 0.7329 | 24.819 | 737.7 | 0.7354 |
| 4 | 22.251 | 824.8 | 0.6907 | 24.475 | 770.3 | 0.6954 | 27.995 | 766.1 | 0.7015 |
| 5 | 23.224 | 841.7 | 0.6386 | 25.518 | 777.8 | 0.6467 | 29.380 | 789.0 | 0.6575 |
| 6 | 23.547 | 854.5 | 0.5850 | 25.898 | 784.0 | 0.5961 | 30.056 | 809.5 | 0.6116 |
| 7 | 23.706 | 864.4 | 0.5358 | 26.111 | 789.9 | 0.5495 | 30.528 | 827.8 | 0.5687 |
| 8 | 23.908 | 871.3 | 0.4926 | 26.364 | 795.5 | 0.5080 | 31.009 | 844.3 | 0.5297 |
| 9 | 24.657 | 879.7 | 0.4539 | 27.188 | 803.9 | 0.4703 | 32.059 | 861.0 | 0.4930 |
| 10 | 24.734 | 880.7 | 0.4200 | 27.303 | 808.1 | 0.4371 | 32.273 | 868.4 | 0.4598 |
| 11 | 24.670 | 879.0 | 0.3904 | 27.270 | 811.6 | 0.4079 | 32.252 | 869.3 | 0.4300 |
| 12 | 24.518 | 875.2 | 0.3647 | 27.142 | 814.3 | 0.3822 | 32.073 | 865.5 | 0.4033 |
| 13 | 24.306 | 869.8 | 0.3421 | 26.951 | 816.7 | 0.3596 | 31.786 | 858.3 | 0.3796 |
| 14 | 24.041 | 863.0 | 0.3222 | 26.702 | 818.5 | 0.3395 | 31.406 | 848.6 | 0.3585 |
| 15 | 23.723 | 855.2 | 0.3046 | 26.394 | 819.7 | 0.3217 | 30.931 | 836.4 | 0.3397 |
| 16 | 23.341 | 846.1 | 0.2888 | 26.013 | 819.8 | 0.3057 | 30.340 | 821.4 | 0.3227 |
| 17 | 22.862 | 835.9 | 0.2747 | 25.523 | 818.5 | 0.2912 | 29.594 | 803.4 | 0.3074 |
| 18 | 22.224 | 824.8 | 0.2621 | 24.862 | 815.9 | 0.2785 | 28.643 | 783.5 | 0.2938 |
| 19 | 21.319 | 813.3 | 0.2511 | 23.917 | 811.4 | 0.2674 | 27.414 | 764.6 | 0.2820 |
| 20 | 20.020 | 799.8 | 0.2418 | 22.551 | 803.9 | 0.2581 | 25.802 | 748.5 | 0.2723 |
| 21 | 17.879 | 777.5 | 0.2342 | 20.258 | 787.0 | 0.2507 | 23.316 | 736.1 | 0.2649 |
| 22 | 15.318 | 748.3 | 0.2280 | 17.471 | 762.7 | 0.2447 | 20.185 | 714.6 | 0.2589 |
| 23 | 12.383 | 707.7 | 0.2223 | 14.163 | 724.2 | 0.2389 | 16.441 | 688.2 | 0.2533 |
| 24 | 5.620 | 623.4 | 0.2177 | 6.400 | 629.8 | 0.2337 | 7.408 | 616.2 | 0.2477 |
| 25 | 3.294 | 595.2 | 0.2141 | 3.710 | 598.2 | 0.2289 | 4.335 | 595.8 | 0.2444 |

Table 4-42. LS1 Burnup and TH Feedback Parameters Assembly C19 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.116 | 625.7 | 0.7396 | 7.652 | 660.0 | 0.7396 | 7.659 | 582.5 | 0.7396 |
| 2 | 20.584 | 793.2 | 0.7396 | 25.076 | 892.7 | 0.7396 | 25.097 | 629.0 | 0.7396 |
| 3 | 27.336 | 818.2 | 0.7352 | 32.570 | 898.7 | 0.7346 | 32.596 | 636.0 | 0.7346 |
| 4 | 30.777 | 850.8 | 0.7018 | 36.157 | 910.5 | 0.7012 | 36.185 | 641.9 | 0.7012 |
| 5 | 32.327 | 871.7 | 0.6587 | 37.703 | 910.1 | 0.6585 | 37.733 | 647.8 | 0.6586 |
| 6 | 33.114 | 886.1 | 0.6137 | 38.487 | 909.9 | 0.6142 | 38.520 | 656.7 | 0.6144 |
| 7 | 33.667 | 896.8 | 0.5715 | 39.076 | 912.8 | 0.5725 | 39.112 | 665.8 | 0.5726 |
| 8 | 34.225 | 907.1 | 0.5330 | 39.715 | 919.4 | 0.5342 | 39.754 | 674.9 | 0.5344 |
| 9 | 35.405 | 924.7 | 0.4966 | 41.058 | 932.9 | 0.4982 | 41.100 | 684.2 | 0.4984 |
| 10 | 35.805 | 950.6 | 0.4636 | 41.592 | 944.2 | 0.4655 | 41.636 | 690.5 | 0.4657 |
| 11 | 35.881 | 964.4 | 0.4336 | 41.838 | 958.6 | 0.4356 | 41.884 | 696.8 | 0.4358 |
| 12 | 35.903 | 993.7 | 0.4070 | 42.035 | 973.8 | 0.4090 | 42.082 | 700.0 | 0.4092 |
| 13 | 36.308 | 1102.0 | 0.3842 | 42.551 | 983.5 | 0.3859 | 42.598 | 700.0 | 0.3862 |
| 14 | 36.094 | 1129.8 | 0.3622 | 42.538 | 1001.4 | 0.3639 | 42.585 | 700.0 | 0.3641 |
| 15 | 35.542 | 1116.8 | 0.3421 | 42.216 | 1022.3 | 0.3439 | 42.263 | 700.0 | 0.3440 |
| 16 | 34.790 | 1090.2 | 0.3243 | 41.685 | 1042.9 | 0.3258 | 41.731 | 696.8 | 0.3260 |
| 17 | 33.827 | 1055.3 | 0.3083 | 40.902 | 1059.9 | 0.3097 | 40.948 | 696.8 | 0.3098 |
| 18 | 32.625 | 1016.4 | 0.2943 | 39.807 | 1070.2 | 0.2952 | 39.852 | 693.6 | 0.2953 |
| 19 | 31.135 | 977.7 | 0.2822 | 38.312 | 1069.7 | 0.2825 | 38.357 | 693.6 | 0.2827 |
| 20 | 29.245 | 938.1 | 0.2721 | 36.257 | 1053.9 | 0.2718 | 36.300 | 687.3 | 0.2720 |
| 21 | 26.398 | 889.3 | 0.2645 | 32.943 | 1010.5 | 0.2633 | 32.983 | 678.0 | 0.2635 |
| 22 | 22.863 | 837.8 | 0.2582 | 28.725 | 950.5 | 0.2562 | 28.761 | 665.8 | 0.2563 |
| 23 | 18.592 | 775.4 | 0.2524 | 23.408 | 865.9 | 0.2498 | 23.438 | 647.8 | 0.2500 |
| 24 | 8.380 | 652.0 | 0.2469 | 10.662 | 691.8 | 0.2443 | 10.675 | 598.9 | 0.2445 |
| 25 | 4.875 | 611.4 | 0.2439 | 6.160 | 633.1 | 0.2414 | 6.167 | 582.2 | 0.2415 |

Table 4-43. LS1 Burnup and TH Feedback Parameters Assembly C20

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.632 | 642.8 | 0.7396 | 3.216 | 644.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.443 | 874.2 | 0.7396 | 10.859 | 892.0 | 0.7396 |
| 3 | 0.000 | | 0.7316 | 7.520 | 955.3 | 0.7316 | 15.177 | 992.0 | 0.7290 |
| 4 | 0.000 | Data | 0.6908 | 8.776 | 1044.0 | 0.6908 | 17.530 | 1076.6 | 0.6850 |
| 5 | 0.000 | Not | 0.6356 | 9.295 | 1083.2 | 0.6356 | 18.374 | 1103.1 | 0.6272 |
| 6 | 0.000 | Required | 0.5759 | 9.423 | 1093.1 | 0.5759 | 18.543 | 1106.5 | 0.5673 |
| 7 | 0.000 | | 0.5200 | 9.426 | 1093.4 | 0.5200 | 18.546 | 1106.5 | 0.5130 |
| 8 | 0.000 | | 0.4720 | 9.471 | 1096.9 | 0.4720 | 18.637 | 1110.3 | 0.4667 |
| 9 | 0.000 | | 0.4309 | 9.852 | 1127.0 | 0.4309 | 19.266 | 1131.1 | 0.4271 |
| 10 | 0.000 | | 0.3958 | 9.823 | 1124.7 | 0.3958 | 19.309 | 1137.2 | 0.3930 |
| 11 | 0.000 | | 0.3660 | 9.690 | 1114.1 | 0.3660 | 19.234 | 1142.2 | 0.3638 |
| 12 | 0.000 | | 0.3406 | 9.501 | 1099.2 | 0.3406 | 19.097 | 1146.6 | 0.3387 |
| 13 | 0.000 | | 0.3189 | 9.281 | 1082.1 | 0.3189 | 18.924 | 1150.7 | 0.3170 |
| 14 | 0.000 | | 0.3003 | 9.037 | 1063.5 | 0.3003 | 18.719 | 1154.1 | 0.2979 |
| 15 | 0.000 | | 0.2841 | 8.766 | 1043.3 | 0.2841 | 18.473 | 1156.2 | 0.2811 |
| 16 | 0.000 | | 0.2699 | 8.462 | 1021.0 | 0.2699 | 18.164 | 1155.8 | 0.2661 |
| 17 | 0.000 | | 0.2575 | 8.109 | 995.9 | 0.2575 | 17.753 | 1150.8 | 0.2528 |
| 18 | 0.000 | | 0.2466 | 7.689 | 966.8 | 0.2466 | 17.174 | 1137.1 | 0.2409 |
| 19 | 0.000 | | 0.2371 | 7.176 | 932.5 | 0.2371 | 16.334 | 1109.6 | 0.2304 |
| 20 | 0.000 | | 0.2289 | 6.546 | 892.2 | 0.2289 | 15.142 | 1063.9 | 0.2213 |
| 21 | 0.000 | | 0.2220 | 5.658 | 838.4 | 0.2220 | 13.289 | 990.1 | 0.2136 |
| 22 | 0.000 | | 0.2164 | 4.742 | 786.6 | 0.2164 | 11.183 | 906.6 | 0.2073 |
| 23 | 0.000 | | 0.2121 | 3.839 | 738.6 | 0.2121 | 8.972 | 823.4 | 0.2024 |
| 24 | 0.000 | | 0.2091 | 1.708 | 636.5 | 0.2091 | 4.065 | 671.9 | 0.1989 |
| 25 | 0.000 | | 0.2079 | 1.035 | 606.9 | 0.2079 | 2.420 | 625.3 | 0.1975 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.099 | 679.1 | 0.7396 | 6.121 | 664.8 | 0.7396 | 7.327 | 635.5 | 0.7396 |
| 2 | 17.230 | 1050.6 | 0.7396 | 20.480 | 949.5 | 0.7396 | 24.158 | 815.0 | 0.7396 |
| 3 | 23.101 | 1113.1 | 0.7229 | 27.056 | 981.1 | 0.7233 | 31.611 | 837.7 | 0.7254 |
| 4 | 25.907 | 1157.8 | 0.6746 | 30.109 | 1016.0 | 0.6758 | 35.180 | 876.0 | 0.6809 |
| 5 | 26.763 | 1159.1 | 0.6146 | 31.057 | 1029.3 | 0.6169 | 36.538 | 907.8 | 0.6256 |
| 6 | 26.828 | 1148.6 | 0.5543 | 31.163 | 1035.2 | 0.5576 | 36.996 | 936.1 | 0.5694 |
| 7 | 26.733 | 1138.9 | 0.5009 | 31.087 | 1038.0 | 0.5047 | 37.238 | 962.4 | 0.5186 |
| 8 | 26.761 | 1132.6 | 0.4559 | 31.120 | 1038.8 | 0.4599 | 37.502 | 982.0 | 0.4745 |
| 9 | 27.436 | 1137.2 | 0.4177 | 31.828 | 1043.6 | 0.4217 | 38.422 | 1000.4 | 0.4361 |
| 10 | 27.428 | 1132.1 | 0.3848 | 31.806 | 1041.6 | 0.3888 | 38.458 | 1005.5 | 0.4028 |
| 11 | 27.283 | 1125.3 | 0.3566 | 31.645 | 1039.2 | 0.3607 | 38.277 | 1003.8 | 0.3741 |
| 12 | 27.060 | 1116.9 | 0.3323 | 31.403 | 1036.4 | 0.3365 | 38.043 | 1004.5 | 0.3495 |
| 13 | 26.781 | 1106.6 | 0.3113 | 31.104 | 1033.5 | 0.3153 | 38.015 | 1028.6 | 0.3291 |
| 14 | 26.437 | 1093.3 | 0.2928 | 30.739 | 1030.4 | 0.2968 | 37.570 | 1021.4 | 0.3097 |
| 15 | 26.008 | 1076.1 | 0.2765 | 30.282 | 1026.4 | 0.2804 | 36.863 | 999.3 | 0.2922 |
| 16 | 25.464 | 1054.4 | 0.2621 | 29.701 | 1021.0 | 0.2659 | 35.957 | 971.3 | 0.2767 |
| 17 | 24.759 | 1027.9 | 0.2493 | 28.943 | 1013.4 | 0.2530 | 34.818 | 939.5 | 0.2630 |
| 18 | 23.847 | 998.7 | 0.2379 | 27.968 | 1004.4 | 0.2415 | 33.443 | 907.3 | 0.2510 |
| 19 | 22.673 | 970.4 | 0.2278 | 26.720 | 994.0 | 0.2313 | 31.843 | 880.0 | 0.2407 |
| 20 | 21.133 | 941.8 | 0.2190 | 25.062 | 977.6 | 0.2224 | 29.812 | 852.0 | 0.2316 |
| 21 | 18.758 | 900.5 | 0.2114 | 22.425 | 942.2 | 0.2147 | 26.693 | 817.2 | 0.2237 |
| 22 | 15.953 | 848.3 | 0.2052 | 19.226 | 891.5 | 0.2084 | 22.932 | 778.5 | 0.2173 |
| 23 | 12.780 | 781.6 | 0.2003 | 15.462 | 820.9 | 0.2034 | 18.430 | 730.5 | 0.2121 |
| 24 | 5.766 | 653.2 | 0.1970 | 6.976 | 666.9 | 0.1999 | 8.309 | 634.0 | 0.2086 |
| 25 | 3.389 | 613.4 | 0.1956 | 4.072 | 621.3 | 0.1984 | 4.813 | 601.9 | 0.2065 |

Table 4-43. LS1 Burnup and TH Feedback Parameters Assembly C20 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 7.735 | 602.7 | 0.7396 | 8.704 | 621.7 | 0.7396 |
| 2 | 25.403 | 697.4 | 0.7396 | 28.128 | 746.4 | 0.7396 |
| 3 | 33.222 | 716.3 | 0.7268 | 36.447 | 752.1 | 0.7289 |
| 4 | 37.052 | 744.3 | 0.6843 | 40.487 | 766.2 | 0.6890 |
| 5 | 38.625 | 768.1 | 0.6317 | 42.221 | 777.1 | 0.6395 |
| 6 | 39.259 | 788.2 | 0.5782 | 43.038 | 789.8 | 0.5890 |
| 7 | 39.641 | 804.6 | 0.5294 | 43.626 | 804.4 | 0.5428 |
| 8 | 40.025 | 818.9 | 0.4868 | 44.236 | 820.6 | 0.5021 |
| 9 | 41.069 | 834.0 | 0.4492 | 45.545 | 840.1 | 0.4655 |
| 10 | 41.179 | 843.2 | 0.4163 | 45.884 | 857.4 | 0.4331 |
| 11 | 41.044 | 848.9 | 0.3874 | 45.967 | 874.2 | 0.4045 |
| 12 | 40.835 | 852.0 | 0.3625 | 45.960 | 890.0 | 0.3795 |
| 13 | 40.795 | 850.5 | 0.3415 | 46.079 | 902.7 | 0.3579 |
| 14 | 40.352 | 850.8 | 0.3218 | 45.833 | 918.7 | 0.3378 |
| 15 | 39.634 | 849.4 | 0.3040 | 45.323 | 935.9 | 0.3197 |
| 16 | 38.683 | 843.8 | 0.2881 | 44.572 | 952.8 | 0.3036 |
| 17 | 37.456 | 832.9 | 0.2740 | 43.511 | 967.1 | 0.2891 |
| 18 | 35.951 | 817.1 | 0.2616 | 42.129 | 977.8 | 0.2763 |
| 19 | 34.198 | 799.0 | 0.2508 | 40.486 | 987.5 | 0.2654 |
| 20 | 32.002 | 779.8 | 0.2414 | 38.179 | 977.7 | 0.2552 |
| 21 | 28.666 | 755.4 | 0.2335 | 34.472 | 945.8 | 0.2467 |
| 22 | 24.655 | 728.2 | 0.2270 | 29.970 | 905.2 | 0.2400 |
| 23 | 19.838 | 695.2 | 0.2217 | 24.201 | 831.8 | 0.2340 |
| 24 | 8.959 | 621.6 | 0.2183 | 11.025 | 678.7 | 0.2303 |
| 25 | 5.265 | 603.4 | 0.2180 | 6.460 | 628.1 | 0.2298 |

Table 4-44. LS1 Burnup and TH Feedback Parameters Assembly C21

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.372 | 629.0 | 0.7396 | 2.586 | 624.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.579 | 816.3 | 0.7396 | 8.655 | 797.5 | 0.7396 |
| 3 | 0.000 | | 0.7395 | 6.287 | 876.1 | 0.7395 | 12.151 | 925.8 | 0.7396 |
| 4 | 0.000 | Data | 0.7108 | 7.339 | 943.2 | 0.7108 | 14.287 | 941.2 | 0.7110 |
| 5 | 0.000 | Not | 0.6699 | 7.838 | 977.0 | 0.6699 | 15.241 | 973.5 | 0.6696 |
| 6 | 0.000 | Required | 0.6219 | 8.044 | 991.3 | 0.6219 | 15.611 | 985.4 | 0.6218 |
| 7 | 0.000 | | 0.5723 | 8.138 | 997.9 | 0.5723 | 15.788 | 991.5 | 0.5729 |
| 8 | 0.000 | | 0.5256 | 8.246 | 1005.6 | 0.5256 | 16.002 | 999.4 | 0.5273 |
| 9 | 0.000 | | 0.4832 | 8.637 | 1033.8 | 0.4832 | 16.710 | 1023.2 | 0.4858 |
| 10 | 0.000 | | 0.4458 | 8.661 | 1035.5 | 0.4458 | 16.833 | 1030.8 | 0.4492 |
| 11 | 0.000 | | 0.4139 | 8.590 | 1030.3 | 0.4139 | 16.829 | 1036.0 | 0.4177 |
| 12 | 0.000 | | 0.3864 | 8.470 | 1021.6 | 0.3864 | 16.769 | 1040.6 | 0.3902 |
| 13 | 0.000 | | 0.3625 | 8.318 | 1010.7 | 0.3625 | 16.671 | 1044.8 | 0.3661 |
| 14 | 0.000 | | 0.3419 | 8.139 | 998.0 | 0.3419 | 16.537 | 1048.3 | 0.3450 |
| 15 | 0.000 | | 0.3238 | 7.932 | 983.5 | 0.3238 | 16.357 | 1050.4 | 0.3263 |
| 16 | 0.000 | | 0.3079 | 7.686 | 966.6 | 0.3079 | 16.103 | 1049.8 | 0.3096 |
| 17 | 0.000 | | 0.2940 | 7.386 | 946.4 | 0.2940 | 15.738 | 1044.7 | 0.2948 |
| 18 | 0.000 | | 0.2817 | 7.017 | 922.1 | 0.2817 | 15.212 | 1032.6 | 0.2815 |
| 19 | 0.000 | | 0.2710 | 6.560 | 893.0 | 0.2710 | 14.458 | 1010.0 | 0.2698 |
| 20 | 0.000 | | 0.2617 | 6.000 | 858.7 | 0.2617 | 13.411 | 974.1 | 0.2595 |
| 21 | 0.000 | | 0.2539 | 5.203 | 812.2 | 0.2539 | 11.791 | 916.5 | 0.2508 |
| 22 | 0.000 | | 0.2476 | 4.380 | 767.0 | 0.2476 | 9.966 | 851.3 | 0.2437 |
| 23 | 0.000 | | 0.2426 | 3.559 | 724.4 | 0.2426 | 8.042 | 785.1 | 0.2380 |
| 24 | 0.000 | | 0.2393 | 1.578 | 630.7 | 0.2393 | 3.632 | 657.0 | 0.2342 |
| 25 | 0.000 | | 0.2378 | 0.944 | 603.0 | 0.2378 | 2.132 | 618.3 | 0.2325 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.150 | 657.7 | 0.7396 | 5.122 | 659.4 | 0.7396 | 6.023 | 615.8 | 0.7396 |
| 2 | 14.120 | 963.4 | 0.7396 | 17.393 | 953.0 | 0.7396 | 20.290 | 754.1 | 0.7396 |
| 3 | 19.359 | 1137.6 | 0.7338 | 23.414 | 995.1 | 0.7326 | 26.969 | 768.4 | 0.7348 |
| 4 | 22.056 | 1098.2 | 0.6989 | 26.336 | 1027.2 | 0.6967 | 30.214 | 790.1 | 0.7019 |
| 5 | 22.988 | 1096.1 | 0.6526 | 27.257 | 1025.6 | 0.6499 | 31.394 | 808.0 | 0.6589 |
| 6 | 23.148 | 1076.3 | 0.6021 | 27.337 | 1014.1 | 0.5993 | 31.723 | 825.6 | 0.6124 |
| 7 | 23.112 | 1056.6 | 0.5534 | 27.218 | 1002.3 | 0.5508 | 31.814 | 840.7 | 0.5673 |
| 8 | 23.181 | 1043.4 | 0.5092 | 27.227 | 993.8 | 0.5071 | 31.979 | 852.1 | 0.5259 |
| 9 | 23.879 | 1042.5 | 0.4700 | 27.929 | 994.4 | 0.4684 | 32.826 | 862.9 | 0.4880 |
| 10 | 23.893 | 1032.7 | 0.4355 | 27.902 | 988.6 | 0.4345 | 32.843 | 866.2 | 0.4541 |
| 11 | 23.748 | 1020.2 | 0.4058 | 27.714 | 982.7 | 0.4051 | 32.654 | 866.1 | 0.4245 |
| 12 | 23.535 | 1006.8 | 0.3799 | 27.459 | 976.9 | 0.3796 | 32.361 | 863.3 | 0.3984 |
| 13 | 23.307 | 995.5 | 0.3575 | 27.186 | 970.7 | 0.3574 | 32.019 | 858.1 | 0.3755 |
| 14 | 23.009 | 981.6 | 0.3375 | 26.846 | 965.0 | 0.3376 | 31.586 | 851.3 | 0.3550 |
| 15 | 22.641 | 965.8 | 0.3198 | 26.433 | 958.9 | 0.3201 | 31.059 | 842.9 | 0.3368 |
| 16 | 22.177 | 948.5 | 0.3040 | 25.915 | 951.6 | 0.3044 | 30.402 | 832.8 | 0.3206 |
| 17 | 21.564 | 928.5 | 0.2899 | 25.225 | 941.4 | 0.2905 | 29.554 | 821.5 | 0.3061 |
| 18 | 20.756 | 906.3 | 0.2774 | 24.313 | 927.7 | 0.2780 | 28.462 | 808.8 | 0.2934 |
| 19 | 19.733 | 885.7 | 0.2663 | 23.171 | 912.4 | 0.2669 | 27.110 | 794.3 | 0.2820 |
| 20 | 18.405 | 864.7 | 0.2565 | 21.693 | 893.4 | 0.2571 | 25.375 | 776.9 | 0.2720 |
| 21 | 16.340 | 832.5 | 0.2481 | 19.368 | 861.5 | 0.2488 | 22.673 | 752.0 | 0.2634 |
| 22 | 13.890 | 789.3 | 0.2411 | 16.557 | 819.2 | 0.2418 | 19.400 | 722.6 | 0.2563 |
| 23 | 11.130 | 735.2 | 0.2357 | 13.279 | 762.3 | 0.2363 | 15.503 | 685.0 | 0.2503 |
| 24 | 4.996 | 634.6 | 0.2321 | 5.937 | 644.2 | 0.2327 | 6.860 | 611.7 | 0.2458 |
| 25 | 2.897 | 602.6 | 0.2305 | 3.422 | 607.5 | 0.2311 | 3.901 | 588.1 | 0.2429 |

Table 4-44. LS1 Burnup and TH Feedback Parameters Assembly C21 (Continue)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.384 | 597.7 | 0.7396 | 6.805 | 586.4 | 0.7396 | 6.819 | 605.4 | 0.7396 |
| 2 | 21.404 | 681.9 | 0.7396 | 22.649 | 640.1 | 0.7396 | 22.691 | 704.0 | 0.7396 |
| 3 | 28.314 | 688.8 | 0.7358 | 29.766 | 642.7 | 0.7368 | 29.816 | 709.6 | 0.7369 |
| 4 | 31.686 | 701.8 | 0.7043 | 33.225 | 647.7 | 0.7067 | 33.280 | 725.9 | 0.7068 |
| 5 | 32.995 | 715.2 | 0.6633 | 34.633 | 653.4 | 0.6676 | 34.691 | 735.9 | 0.6677 |
| 6 | 33.467 | 730.4 | 0.6192 | 35.239 | 661.2 | 0.6259 | 35.302 | 752.7 | 0.6261 |
| 7 | 33.702 | 746.0 | 0.5763 | 35.643 | 671.2 | 0.5858 | 35.709 | 763.1 | 0.5860 |
| 8 | 34.003 | 761.1 | 0.5368 | 36.137 | 682.8 | 0.5491 | 36.205 | 770.0 | 0.5493 |
| 9 | 34.990 | 776.9 | 0.5002 | 37.353 | 696.8 | 0.5152 | 37.424 | 780.6 | 0.5155 |
| 10 | 35.109 | 788.6 | 0.4674 | 37.690 | 710.4 | 0.4852 | 37.762 | 784.2 | 0.4854 |
| 11 | 35.007 | 798.7 | 0.4383 | 37.806 | 724.2 | 0.4586 | 37.880 | 791.3 | 0.4589 |
| 12 | 34.786 | 807.2 | 0.4125 | 37.809 | 738.7 | 0.4350 | 37.882 | 787.7 | 0.4353 |
| 13 | 34.502 | 814.1 | 0.3894 | 37.747 | 753.4 | 0.4139 | 37.819 | 784.2 | 0.4141 |
| 14 | 34.115 | 819.7 | 0.3688 | 37.573 | 767.7 | 0.3947 | 37.644 | 780.6 | 0.3949 |
| 15 | 33.617 | 823.2 | 0.3503 | 37.274 | 781.3 | 0.3772 | 37.345 | 780.6 | 0.3774 |
| 16 | 32.973 | 824.8 | 0.3338 | 36.815 | 794.2 | 0.3613 | 36.883 | 770.0 | 0.3616 |
| 17 | 32.118 | 823.9 | 0.3190 | 36.125 | 805.9 | 0.3469 | 36.190 | 759.6 | 0.3471 |
| 18 | 30.996 | 820.3 | 0.3059 | 35.136 | 815.5 | 0.3340 | 35.199 | 752.7 | 0.3342 |
| 19 | 29.586 | 813.3 | 0.2943 | 33.802 | 821.0 | 0.3223 | 33.862 | 742.6 | 0.3225 |
| 20 | 27.753 | 801.7 | 0.2840 | 31.954 | 819.9 | 0.3119 | 32.011 | 732.5 | 0.3121 |
| 21 | 24.865 | 780.1 | 0.2753 | 28.871 | 805.9 | 0.3031 | 28.922 | 712.8 | 0.3033 |
| 22 | 21.338 | 751.5 | 0.2681 | 24.995 | 781.3 | 0.2958 | 25.041 | 696.8 | 0.2960 |
| 23 | 17.051 | 709.7 | 0.2619 | 20.039 | 736.5 | 0.2889 | 20.076 | 668.8 | 0.2891 |
| 24 | 7.511 | 621.7 | 0.2567 | 8.782 | 632.4 | 0.2823 | 8.798 | 607.3 | 0.2825 |
| 25 | 4.235 | 592.8 | 0.2529 | 4.879 | 597.6 | 0.2763 | 4.887 | 585.0 | 0.2765 |

Table 4-45. LS1 Burnup and TH Feedback Parameters Assembly C22

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.934 | 659.0 | 0.7396 | 3.737 | 657.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.373 | 940.8 | 0.7396 | 12.520 | 947.7 | 0.7396 |
| 3 | 0.000 | | 0.7205 | 8.696 | 1038.1 | 0.7205 | 17.049 | 1044.8 | 0.7187 |
| 4 | 0.000 | Data | 0.6668 | 9.957 | 1135.5 | 0.6668 | 19.235 | 1119.6 | 0.6631 |
| 5 | 0.000 | Not | 0.5998 | 10.314 | 1164.8 | 0.5998 | 19.836 | 1140.3 | 0.5964 |
| 6 | 0.000 | Required | 0.5348 | 10.253 | 1159.7 | 0.5348 | 19.836 | 1145.5 | 0.5334 |
| 7 | 0.000 | | 0.4797 | 10.114 | 1148.3 | 0.4797 | 19.745 | 1149.7 | 0.4803 |
| 8 | 0.000 | | 0.4346 | 10.055 | 1143.4 | 0.4346 | 19.763 | 1156.3 | 0.4363 |
| 9 | 0.000 | | 0.3966 | 10.375 | 1169.8 | 0.3966 | 20.347 | 1179.4 | 0.3988 |
| 10 | 0.000 | | 0.3642 | 10.306 | 1164.1 | 0.3642 | 20.374 | 1188.0 | 0.3666 |
| 11 | 0.000 | | 0.3369 | 10.160 | 1152.0 | 0.3369 | 20.313 | 1195.6 | 0.3393 |
| 12 | 0.000 | | 0.3137 | 9.979 | 1137.3 | 0.3137 | 20.209 | 1202.5 | 0.3158 |
| 13 | 0.000 | | 0.2939 | 9.780 | 1121.3 | 0.2939 | 20.079 | 1208.7 | 0.2953 |
| 14 | 0.000 | | 0.2768 | 9.565 | 1104.2 | 0.2768 | 19.919 | 1213.7 | 0.2773 |
| 15 | 0.000 | | 0.2617 | 9.335 | 1086.3 | 0.2617 | 19.718 | 1216.4 | 0.2614 |
| 16 | 0.000 | | 0.2486 | 9.085 | 1067.2 | 0.2486 | 19.455 | 1215.2 | 0.2472 |
| 17 | 0.000 | | 0.2370 | 8.809 | 1046.5 | 0.2370 | 19.106 | 1208.6 | 0.2346 |
| 18 | 0.000 | | 0.2268 | 8.496 | 1023.5 | 0.2268 | 18.628 | 1193.7 | 0.2234 |
| 19 | 0.000 | | 0.2179 | 8.103 | 995.4 | 0.2179 | 17.930 | 1166.7 | 0.2133 |
| 20 | 0.000 | | 0.2099 | 7.563 | 958.2 | 0.2099 | 16.886 | 1123.4 | 0.2045 |
| 21 | 0.000 | | 0.2030 | 6.677 | 900.4 | 0.2030 | 15.100 | 1050.3 | 0.1967 |
| 22 | 0.000 | | 0.1972 | 5.695 | 840.6 | 0.1972 | 12.956 | 963.3 | 0.1904 |
| 23 | 0.000 | | 0.1926 | 4.693 | 783.9 | 0.1926 | 10.587 | 870.8 | 0.1854 |
| 24 | 0.000 | | 0.1892 | 2.149 | 656.5 | 0.1892 | 4.917 | 692.4 | 0.1817 |
| 25 | 0.000 | | 0.1878 | 1.321 | 619.4 | 0.1878 | 2.970 | 637.7 | 0.1801 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.145 | 647.4 | 0.7396 | 6.001 | 646.9 | 0.7396 | 6.883 | 614.6 | 0.7396 |
| 2 | 17.345 | 905.9 | 0.7396 | 20.105 | 879.0 | 0.7396 | 22.916 | 747.7 | 0.7396 |
| 3 | 23.202 | 955.0 | 0.7221 | 26.598 | 907.0 | 0.7238 | 30.127 | 766.7 | 0.7263 |
| 4 | 25.978 | 1004.8 | 0.6713 | 29.607 | 937.2 | 0.6753 | 33.532 | 793.3 | 0.6816 |
| 5 | 26.820 | 1025.9 | 0.6094 | 30.522 | 946.8 | 0.6162 | 34.747 | 814.2 | 0.6270 |
| 6 | 26.896 | 1032.7 | 0.5493 | 30.609 | 948.3 | 0.5581 | 35.090 | 832.4 | 0.5734 |
| 7 | 26.801 | 1032.3 | 0.4969 | 30.502 | 946.7 | 0.5067 | 35.204 | 848.5 | 0.5254 |
| 8 | 26.802 | 1030.8 | 0.4525 | 30.491 | 945.1 | 0.4628 | 35.415 | 864.9 | 0.4837 |
| 9 | 27.442 | 1035.8 | 0.4144 | 31.161 | 949.1 | 0.4246 | 36.525 | 898.6 | 0.4475 |
| 10 | 27.397 | 1029.4 | 0.3818 | 31.100 | 947.0 | 0.3919 | 37.465 | 980.6 | 0.4177 |
| 11 | 27.220 | 1019.1 | 0.3540 | 30.901 | 944.0 | 0.3640 | 37.582 | 1008.1 | 0.3884 |
| 12 | 26.969 | 1006.3 | 0.3299 | 30.630 | 941.4 | 0.3398 | 37.370 | 1013.3 | 0.3622 |
| 13 | 26.675 | 992.1 | 0.3090 | 30.315 | 938.6 | 0.3188 | 37.260 | 1031.7 | 0.3403 |
| 14 | 26.339 | 977.2 | 0.2907 | 29.957 | 935.7 | 0.3002 | 36.833 | 1025.5 | 0.3200 |
| 15 | 25.947 | 961.2 | 0.2744 | 29.539 | 932.3 | 0.2839 | 36.240 | 1009.8 | 0.3018 |
| 16 | 25.471 | 943.8 | 0.2600 | 29.027 | 927.6 | 0.2692 | 35.599 | 998.5 | 0.2862 |
| 17 | 24.874 | 923.9 | 0.2472 | 28.375 | 920.5 | 0.2562 | 34.674 | 974.9 | 0.2718 |
| 18 | 24.118 | 902.1 | 0.2357 | 27.539 | 910.2 | 0.2446 | 33.502 | 946.7 | 0.2590 |
| 19 | 23.146 | 881.2 | 0.2256 | 26.467 | 897.5 | 0.2343 | 32.105 | 920.3 | 0.2480 |
| 20 | 21.813 | 859.7 | 0.2167 | 25.000 | 880.9 | 0.2254 | 30.246 | 892.9 | 0.2384 |
| 21 | 19.593 | 828.5 | 0.2093 | 22.541 | 852.0 | 0.2178 | 27.243 | 848.5 | 0.2302 |
| 22 | 16.870 | 788.6 | 0.2030 | 19.482 | 813.0 | 0.2115 | 23.533 | 802.0 | 0.2235 |
| 23 | 13.702 | 736.9 | 0.1977 | 15.822 | 759.2 | 0.2060 | 19.017 | 744.9 | 0.2173 |
| 24 | 6.294 | 635.3 | 0.1936 | 7.238 | 644.5 | 0.2017 | 8.638 | 637.7 | 0.2126 |
| 25 | 3.731 | 602.4 | 0.1912 | 4.250 | 607.0 | 0.1989 | 5.007 | 602.8 | 0.2092 |

Table 4-45. LS1 Burnup and TH Feedback Parameters Assembly C22 (Continue)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 7.253 | 598.7 | 0.7396 | 8.191 | 619.7 | 0.7396 | 8.196 | 576.1 | 0.7396 |
| 2 | 24.070 | 686.6 | 0.7396 | 26.756 | 743.4 | 0.7396 | 26.770 | 605.4 | 0.7396 |
| 3 | 31.589 | 700.8 | 0.7276 | 34.753 | 748.0 | 0.7296 | 34.770 | 610.2 | 0.7296 |
| 4 | 35.190 | 721.2 | 0.6849 | 38.547 | 760.9 | 0.6896 | 38.566 | 615.8 | 0.6897 |
| 5 | 36.571 | 739.0 | 0.6330 | 40.089 | 771.8 | 0.6410 | 40.109 | 618.7 | 0.641 |
| 6 | 37.055 | 754.5 | 0.5819 | 40.758 | 784.5 | 0.5929 | 40.781 | 627.3 | 0.593 |
| 7 | 37.284 | 767.3 | 0.5361 | 41.190 | 798.8 | 0.5496 | 41.215 | 633.1 | 0.5498 |
| 8 | 37.584 | 777.4 | 0.4960 | 41.693 | 813.2 | 0.5112 | 41.719 | 636.0 | 0.5114 |
| 9 | 38.768 | 785.9 | 0.4603 | 43.088 | 828.6 | 0.4764 | 43.117 | 644.8 | 0.4766 |
| 10 | 39.703 | 785.4 | 0.4304 | 44.120 | 835.8 | 0.4463 | 44.150 | 647.8 | 0.4466 |
| 11 | 39.838 | 787.4 | 0.4011 | 44.414 | 847.6 | 0.4174 | 44.446 | 653.7 | 0.4176 |
| 12 | 39.649 | 790.1 | 0.3751 | 44.404 | 861.2 | 0.3914 | 44.437 | 656.7 | 0.3916 |
| 13 | 39.544 | 790.7 | 0.3529 | 44.450 | 872.8 | 0.3691 | 44.484 | 659.7 | 0.3693 |
| 14 | 39.141 | 793.5 | 0.3325 | 44.224 | 886.7 | 0.3485 | 44.258 | 659.7 | 0.3488 |
| 15 | 38.572 | 796.3 | 0.3143 | 43.834 | 900.9 | 0.3302 | 43.869 | 662.7 | 0.3304 |
| 16 | 37.934 | 796.6 | 0.2985 | 43.354 | 913.7 | 0.3141 | 43.388 | 659.7 | 0.3143 |
| 17 | 36.995 | 795.0 | 0.2841 | 42.563 | 925.9 | 0.2994 | 42.596 | 656.7 | 0.2996 |
| 18 | 35.789 | 791.0 | 0.2711 | 41.469 | 935.2 | 0.2862 | 41.502 | 656.7 | 0.2864 |
| 19 | 34.348 | 785.9 | 0.2600 | 40.090 | 940.4 | 0.2748 | 40.122 | 653.7 | 0.2750 |
| 20 | 32.526 | 790.2 | 0.2507 | 38.207 | 935.3 | 0.2652 | 38.237 | 647.8 | 0.2653 |
| 21 | 29.842 | 828.2 | 0.2449 | 35.138 | 903.7 | 0.2581 | 35.166 | 641.9 | 0.2583 |
| 22 | 25.996 | 811.8 | 0.2386 | 30.779 | 863.4 | 0.2512 | 30.803 | 630.2 | 0.2514 |
| 23 | 21.023 | 759.0 | 0.2319 | 24.950 | 800.2 | 0.2441 | 24.970 | 618.7 | 0.2443 |
| 24 | 9.531 | 644.4 | 0.2266 | 11.368 | 665.1 | 0.2389 | 11.377 | 587.8 | 0.2390 |
| 25 | 5.514 | 608.4 | 0.2230 | 6.534 | 618.3 | 0.2352 | 6.539 | 576.7 | 0.2353 |

Table 4-46. LS1 Burnup and TH Feedback Parameters Assembly C23

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 2.003 | 662.8 | 0.7396 | 3.794 | 656.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.638 | 960.6 | 0.7396 | 12.750 | 945.0 | 0.7396 |
| 3 | 0.000 | | 0.7187 | 9.030 | 1063.0 | 0.7187 | 17.271 | 1036.1 | 0.7184 |
| 4 | 0.000 | Data | 0.6626 | 10.259 | 1160.2 | 0.6626 | 19.377 | 1106.3 | 0.6625 |
| 5 | 0.000 | Not | 0.5934 | 10.552 | 1184.7 | 0.5934 | 19.916 | 1126.9 | 0.5952 |
| 6 | 0.000 | Required | 0.5272 | 10.447 | 1175.9 | 0.5272 | 19.885 | 1133.1 | 0.5318 |
| 7 | 0.000 | | 0.4720 | 10.283 | 1162.2 | 0.4720 | 19.784 | 1138.5 | 0.4785 |
| 8 | 0.000 | | 0.4273 | 10.206 | 1155.8 | 0.4273 | 19.792 | 1145.8 | 0.4347 |
| 9 | 0.000 | | 0.3897 | 10.508 | 1181.0 | 0.3897 | 20.363 | 1169.1 | 0.3973 |
| 10 | 0.000 | | 0.3578 | 10.427 | 1174.2 | 0.3578 | 20.384 | 1178.1 | 0.3653 |
| 11 | 0.000 | | 0.3309 | 10.274 | 1161.4 | 0.3309 | 20.322 | 1186.2 | 0.3381 |
| 12 | 0.000 | | 0.3081 | 10.089 | 1146.2 | 0.3081 | 20.221 | 1193.7 | 0.3147 |
| 13 | 0.000 | | 0.2886 | 9.887 | 1129.8 | 0.2886 | 20.095 | 1200.5 | 0.2943 |
| 14 | 0.000 | | 0.2717 | 9.670 | 1112.5 | 0.2717 | 19.940 | 1206.1 | 0.2765 |
| 15 | 0.000 | | 0.2569 | 9.437 | 1094.2 | 0.2569 | 19.744 | 1209.5 | 0.2606 |
| 16 | 0.000 | | 0.2439 | 9.184 | 1074.7 | 0.2439 | 19.488 | 1209.2 | 0.2465 |
| 17 | 0.000 | | 0.2324 | 8.899 | 1053.2 | 0.2324 | 19.143 | 1203.8 | 0.2338 |
| 18 | 0.000 | | 0.2222 | 8.564 | 1028.4 | 0.2222 | 18.661 | 1190.6 | 0.2225 |
| 19 | 0.000 | | 0.2131 | 8.137 | 997.8 | 0.2131 | 17.953 | 1165.7 | 0.2124 |
| 20 | 0.000 | | 0.2053 | 7.571 | 958.8 | 0.2053 | 16.907 | 1124.5 | 0.2034 |
| 21 | 0.000 | | 0.1984 | 6.680 | 900.6 | 0.1984 | 15.134 | 1052.7 | 0.1958 |
| 22 | 0.000 | | 0.1928 | 5.699 | 840.8 | 0.1928 | 12.999 | 966.1 | 0.1894 |
| 23 | 0.000 | | 0.1884 | 4.683 | 783.3 | 0.1884 | 10.600 | 872.3 | 0.1844 |
| 24 | 0.000 | | 0.1851 | 2.125 | 655.4 | 0.1851 | 4.890 | 692.3 | 0.1808 |
| 25 | 0.000 | | 0.1838 | 1.302 | 618.5 | 0.1838 | 2.942 | 637.3 | 0.1792 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.607 | 674.3 | 0.7396 | 6.684 | 670.8 | 0.7396 | 8.053 | 646.2 | 0.7396 |
| 2 | 18.798 | 1018.7 | 0.7396 | 22.155 | 965.6 | 0.7396 | 26.246 | 848.8 | 0.7396 |
| 3 | 24.838 | 1079.1 | 0.7177 | 28.914 | 998.0 | 0.7186 | 34.049 | 880.9 | 0.7214 |
| 4 | 27.524 | 1134.9 | 0.6623 | 31.846 | 1033.3 | 0.6649 | 37.644 | 933.2 | 0.6715 |
| 5 | 28.215 | 1150.0 | 0.5959 | 32.606 | 1043.5 | 0.6002 | 38.896 | 974.2 | 0.6110 |
| 6 | 28.169 | 1148.5 | 0.5328 | 32.560 | 1043.5 | 0.5383 | 39.204 | 1004.8 | 0.5519 |
| 7 | 28.006 | 1142.3 | 0.4796 | 32.375 | 1040.2 | 0.4854 | 39.258 | 1026.1 | 0.5000 |
| 8 | 27.952 | 1136.2 | 0.4357 | 32.294 | 1036.3 | 0.4416 | 39.356 | 1042.4 | 0.4557 |
| 9 | 28.541 | 1138.0 | 0.3985 | 32.895 | 1038.0 | 0.4043 | 40.146 | 1059.8 | 0.4175 |
| 10 | 28.464 | 1128.3 | 0.3668 | 32.791 | 1034.1 | 0.3726 | 40.062 | 1061.7 | 0.3848 |
| 11 | 28.270 | 1115.4 | 0.3398 | 32.571 | 1030.3 | 0.3455 | 39.772 | 1055.2 | 0.3568 |
| 12 | 28.006 | 1099.7 | 0.3166 | 32.283 | 1026.8 | 0.3222 | 39.357 | 1043.5 | 0.3326 |
| 13 | 27.698 | 1082.5 | 0.2964 | 31.953 | 1023.6 | 0.3019 | 38.856 | 1027.9 | 0.3116 |
| 14 | 27.346 | 1064.1 | 0.2787 | 31.578 | 1020.3 | 0.2841 | 38.264 | 1008.5 | 0.2932 |
| 15 | 26.933 | 1044.3 | 0.2631 | 31.144 | 1017.2 | 0.2685 | 37.559 | 984.9 | 0.2770 |
| 16 | 26.435 | 1022.7 | 0.2493 | 30.625 | 1014.2 | 0.2545 | 36.705 | 956.4 | 0.2626 |
| 17 | 25.811 | 998.3 | 0.2369 | 29.978 | 1010.9 | 0.2420 | 35.654 | 923.3 | 0.2497 |
| 18 | 25.020 | 972.1 | 0.2259 | 29.135 | 1003.5 | 0.2309 | 34.372 | 888.8 | 0.2382 |
| 19 | 24.000 | 946.3 | 0.2161 | 28.021 | 990.3 | 0.2210 | 32.845 | 857.5 | 0.2281 |
| 20 | 22.617 | 919.3 | 0.2074 | 26.472 | 967.4 | 0.2122 | 30.925 | 830.4 | 0.2192 |
| 21 | 20.335 | 880.1 | 0.2000 | 23.878 | 925.9 | 0.2047 | 27.882 | 798.8 | 0.2118 |
| 22 | 17.532 | 831.3 | 0.1938 | 20.653 | 872.8 | 0.1984 | 24.129 | 763.2 | 0.2055 |
| 23 | 14.230 | 769.8 | 0.1888 | 16.762 | 804.0 | 0.1932 | 19.551 | 719.3 | 0.2003 |
| 24 | 6.521 | 649.3 | 0.1853 | 7.674 | 663.6 | 0.1897 | 8.964 | 631.6 | 0.1969 |
| 25 | 3.863 | 610.8 | 0.1835 | 4.512 | 618.3 | 0.1878 | 5.235 | 601.0 | 0.1947 |

Table 4-46. LS1 Burnup and TH Feedback Parameters Assembly C23 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 8.793 | 639.0 | 0.7396 | 10.048 | 640.8 | 0.7396 |
| 2 | 28.412 | 815.5 | 0.7396 | 31.816 | 799.9 | 0.7396 |
| 3 | 36.807 | 847.8 | 0.7228 | 40.823 | 806.6 | 0.7248 |
| 4 | 40.800 | 899.1 | 0.6748 | 45.087 | 826.2 | 0.6792 |
| 5 | 42.330 | 936.9 | 0.6164 | 46.794 | 839.2 | 0.6239 |
| 6 | 42.812 | 961.4 | 0.5588 | 47.459 | 853.0 | 0.5690 |
| 7 | 42.972 | 976.6 | 0.5075 | 47.824 | 868.7 | 0.5198 |
| 8 | 43.150 | 988.3 | 0.4632 | 48.219 | 885.6 | 0.4769 |
| 9 | 44.049 | 1004.5 | 0.4247 | 49.377 | 906.3 | 0.4391 |
| 10 | 44.009 | 1011.1 | 0.3916 | 49.561 | 924.5 | 0.4063 |
| 11 | 43.739 | 1014.2 | 0.3632 | 49.494 | 941.5 | 0.3780 |
| 12 | 43.340 | 1016.6 | 0.3388 | 49.289 | 957.9 | 0.3534 |
| 13 | 42.850 | 1018.3 | 0.3175 | 48.988 | 974.3 | 0.3317 |
| 14 | 42.256 | 1018.0 | 0.2988 | 48.581 | 990.8 | 0.3128 |
| 15 | 41.517 | 1012.8 | 0.2822 | 48.025 | 1007.2 | 0.2958 |
| 16 | 40.579 | 1000.2 | 0.2675 | 47.251 | 1022.2 | 0.2808 |
| 17 | 39.380 | 978.4 | 0.2544 | 46.171 | 1033.2 | 0.2672 |
| 18 | 37.893 | 949.0 | 0.2427 | 44.733 | 1037.7 | 0.2551 |
| 19 | 36.134 | 916.9 | 0.2323 | 42.913 | 1032.0 | 0.2442 |
| 20 | 33.973 | 884.8 | 0.2233 | 40.539 | 1012.5 | 0.2346 |
| 21 | 30.621 | 845.4 | 0.2157 | 36.711 | 970.1 | 0.2264 |
| 22 | 26.506 | 801.6 | 0.2094 | 31.911 | 912.5 | 0.2196 |
| 23 | 21.458 | 748.1 | 0.2041 | 25.840 | 833.2 | 0.2137 |
| 24 | 9.859 | 644.6 | 0.2008 | 11.954 | 680.5 | 0.2102 |
| 25 | 5.741 | 608.3 | 0.1985 | 6.919 | 627.1 | 0.2076 |

Table 4-47. LS1 Burnup and TH Feedback Parameters Assembly C24

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.906 | 657.5 | 0.7396 | 3.657 | 654.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.354 | 939.4 | 0.7396 | 12.335 | 934.8 | 0.7396 |
| 3 | 0.000 | | 0.7220 | 8.697 | 1038.2 | 0.7220 | 16.825 | 1027.4 | 0.7213 |
| 4 | 0.000 | Data | 0.6695 | 9.944 | 1134.4 | 0.6695 | 18.965 | 1098.3 | 0.6687 |
| 5 | 0.000 | Not | 0.6031 | 10.283 | 1162.2 | 0.6031 | 19.537 | 1117.6 | 0.6035 |
| 6 | 0.000 | Required | 0.5378 | 10.220 | 1157.0 | 0.5378 | 19.523 | 1121.7 | 0.5405 |
| 7 | 0.000 | | 0.4822 | 10.082 | 1145.6 | 0.4822 | 19.429 | 1125.4 | 0.4867 |
| 8 | 0.000 | | 0.4368 | 10.025 | 1141.0 | 0.4368 | 19.449 | 1132.0 | 0.4422 |
| 9 | 0.000 | | 0.3986 | 10.337 | 1166.7 | 0.3986 | 20.028 | 1154.8 | 0.4044 |
| 10 | 0.000 | | 0.3660 | 10.262 | 1160.4 | 0.3660 | 20.056 | 1163.8 | 0.3719 |
| 11 | 0.000 | | 0.3386 | 10.110 | 1147.9 | 0.3386 | 19.994 | 1171.7 | 0.3442 |
| 12 | 0.000 | | 0.3153 | 9.923 | 1132.7 | 0.3153 | 19.889 | 1178.9 | 0.3204 |
| 13 | 0.000 | | 0.2954 | 9.717 | 1116.2 | 0.2954 | 19.757 | 1185.5 | 0.2998 |
| 14 | 0.000 | | 0.2782 | 9.495 | 1098.7 | 0.2782 | 19.598 | 1191.1 | 0.2815 |
| 15 | 0.000 | | 0.2631 | 9.255 | 1080.1 | 0.2631 | 19.398 | 1194.7 | 0.2654 |
| 16 | 0.000 | | 0.2498 | 8.994 | 1060.3 | 0.2498 | 19.143 | 1195.2 | 0.2510 |
| 17 | 0.000 | | 0.2380 | 8.704 | 1038.7 | 0.2380 | 18.805 | 1190.9 | 0.2382 |
| 18 | 0.000 | | 0.2276 | 8.366 | 1014.1 | 0.2276 | 18.338 | 1179.4 | 0.2266 |
| 19 | 0.000 | | 0.2184 | 7.945 | 984.4 | 0.2184 | 17.662 | 1157.1 | 0.2164 |
| 20 | 0.000 | | 0.2103 | 7.394 | 946.9 | 0.2103 | 16.666 | 1119.1 | 0.2072 |
| 21 | 0.000 | | 0.2034 | 6.527 | 891.0 | 0.2034 | 14.946 | 1050.0 | 0.1994 |
| 22 | 0.000 | | 0.1977 | 5.566 | 833.1 | 0.1977 | 12.845 | 964.6 | 0.1930 |
| 23 | 0.000 | | 0.1932 | 4.562 | 776.8 | 0.1932 | 10.456 | 870.8 | 0.1878 |
| 24 | 0.000 | | 0.1900 | 2.059 | 652.4 | 0.1900 | 4.800 | 691.1 | 0.1842 |
| 25 | 0.000 | | 0.1887 | 1.257 | 616.6 | 0.1887 | 2.878 | 636.4 | 0.1827 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.480 | 675.0 | 0.7396 | 6.543 | 669.3 | 0.7396 | 7.284 | 605.7 | 0.7396 |
| 2 | 18.419 | 1022.2 | 0.7396 | 21.752 | 962.0 | 0.7396 | 24.095 | 713.4 | 0.7396 |
| 3 | 24.386 | 1078.5 | 0.7199 | 28.436 | 994.4 | 0.7206 | 31.444 | 733.0 | 0.7239 |
| 4 | 27.013 | 1125.2 | 0.6672 | 31.302 | 1028.5 | 0.6692 | 34.771 | 762.7 | 0.6770 |
| 5 | 27.631 | 1129.7 | 0.6029 | 31.979 | 1037.2 | 0.6065 | 35.858 | 790.2 | 0.6203 |
| 6 | 27.510 | 1119.2 | 0.5406 | 31.849 | 1035.8 | 0.5455 | 36.095 | 815.6 | 0.5652 |
| 7 | 27.297 | 1107.7 | 0.4874 | 31.606 | 1031.4 | 0.4927 | 36.158 | 837.5 | 0.5170 |
| 8 | 27.244 | 1100.7 | 0.4433 | 31.527 | 1027.7 | 0.4487 | 36.325 | 855.5 | 0.4758 |
| 9 | 27.856 | 1103.8 | 0.4060 | 32.158 | 1030.4 | 0.4113 | 37.175 | 871.9 | 0.4392 |
| 10 | 27.798 | 1095.6 | 0.3739 | 32.076 | 1026.9 | 0.3793 | 37.187 | 879.1 | 0.4070 |
| 11 | 27.604 | 1083.1 | 0.3466 | 31.855 | 1023.0 | 0.3520 | 36.979 | 880.1 | 0.3788 |
| 12 | 27.340 | 1068.3 | 0.3232 | 31.562 | 1018.8 | 0.3284 | 36.639 | 876.5 | 0.3540 |
| 13 | 27.035 | 1052.4 | 0.3027 | 31.229 | 1014.8 | 0.3080 | 36.215 | 869.6 | 0.3322 |
| 14 | 26.691 | 1035.7 | 0.2848 | 30.856 | 1010.7 | 0.2899 | 35.718 | 860.3 | 0.3130 |
| 15 | 26.295 | 1018.2 | 0.2690 | 30.429 | 1006.2 | 0.2740 | 35.140 | 849.1 | 0.2959 |
| 16 | 25.823 | 999.3 | 0.2549 | 29.925 | 1001.7 | 0.2598 | 34.472 | 837.2 | 0.2807 |
| 17 | 25.235 | 978.0 | 0.2423 | 29.301 | 996.6 | 0.2472 | 33.606 | 819.8 | 0.2668 |
| 18 | 24.485 | 954.5 | 0.2311 | 28.491 | 988.2 | 0.2358 | 32.516 | 800.2 | 0.2544 |
| 19 | 23.532 | 932.0 | 0.2211 | 27.437 | 974.3 | 0.2258 | 31.225 | 784.0 | 0.2436 |
| 20 | 22.232 | 908.0 | 0.2122 | 25.972 | 951.9 | 0.2168 | 29.692 | 779.4 | 0.2349 |
| 21 | 20.039 | 872.0 | 0.2046 | 23.478 | 912.5 | 0.2091 | 26.995 | 765.9 | 0.2275 |
| 22 | 17.296 | 825.5 | 0.1983 | 20.324 | 861.5 | 0.2028 | 23.510 | 744.3 | 0.2214 |
| 23 | 14.019 | 765.5 | 0.1932 | 16.471 | 795.1 | 0.1975 | 19.059 | 706.9 | 0.2159 |
| 24 | 6.390 | 647.0 | 0.1896 | 7.498 | 659.4 | 0.1939 | 8.652 | 624.2 | 0.2117 |
| 25 | 3.771 | 609.3 | 0.1878 | 4.391 | 615.8 | 0.1919 | 5.092 | 599.8 | 0.2104 |

Table 4-47. LS1 Burnup and TH Feedback Parameters Assembly C24 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 7.726 | 606.3 | 0.7396 | 9.134 | 651.2 | 0.7396 |
| 2 | 25.455 | 711.3 | 0.7396 | 29.335 | 839.4 | 0.7396 |
| 3 | 33.189 | 730.5 | 0.7254 | 37.705 | 843.1 | 0.7268 |
| 4 | 36.782 | 759.6 | 0.6808 | 41.528 | 860.5 | 0.6842 |
| 5 | 38.087 | 784.3 | 0.6268 | 42.987 | 872.4 | 0.6325 |
| 6 | 38.496 | 804.4 | 0.5742 | 43.559 | 885.1 | 0.5819 |
| 7 | 38.687 | 819.7 | 0.5279 | 43.933 | 899.7 | 0.5368 |
| 8 | 38.950 | 831.3 | 0.4876 | 44.391 | 915.4 | 0.4973 |
| 9 | 39.891 | 842.5 | 0.4513 | 45.577 | 935.7 | 0.4612 |
| 10 | 39.948 | 848.1 | 0.4191 | 45.839 | 953.0 | 0.4291 |
| 11 | 39.765 | 851.3 | 0.3907 | 45.859 | 970.5 | 0.4005 |
| 12 | 39.447 | 854.0 | 0.3656 | 45.739 | 987.8 | 0.3752 |
| 13 | 39.060 | 858.7 | 0.3436 | 45.542 | 1004.8 | 0.3528 |
| 14 | 38.695 | 875.6 | 0.3245 | 45.342 | 1019.9 | 0.3331 |
| 15 | 38.635 | 945.4 | 0.3086 | 45.355 | 1026.6 | 0.3165 |
| 16 | 38.812 | 1072.3 | 0.2950 | 45.525 | 1025.9 | 0.3019 |
| 17 | 38.090 | 1095.8 | 0.2803 | 44.887 | 1033.7 | 0.2870 |
| 18 | 36.850 | 1071.4 | 0.2665 | 43.715 | 1040.1 | 0.2730 |
| 19 | 35.322 | 1034.1 | 0.2543 | 42.154 | 1037.0 | 0.2606 |
| 20 | 33.493 | 989.4 | 0.2445 | 40.122 | 1018.2 | 0.2502 |
| 21 | 30.412 | 934.5 | 0.2362 | 36.587 | 977.5 | 0.2415 |
| 22 | 26.480 | 874.7 | 0.2295 | 32.004 | 922.2 | 0.2343 |
| 23 | 21.436 | 801.6 | 0.2235 | 25.967 | 844.2 | 0.2279 |
| 24 | 9.739 | 663.1 | 0.2192 | 11.925 | 686.0 | 0.2237 |
| 25 | 5.684 | 616.2 | 0.2172 | 6.906 | 629.6 | 0.2214 |

Table 4-48. LS1 Burnup and TH Feedback Parameters Assembly C25

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.512 | 636.4 | 0.7396 | 3.252 | 653.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.065 | 848.4 | 0.7396 | 10.936 | 926.3 | 0.7396 |
| 3 | 0.000 | | 0.7349 | 7.005 | 921.4 | 0.7349 | 15.147 | 1028.5 | 0.7276 |
| 4 | 0.000 | Data | 0.6989 | 8.207 | 1002.8 | 0.6989 | 17.382 | 1111.0 | 0.6827 |
| 5 | 0.000 | Not | 0.6491 | 8.749 | 1042.0 | 0.6491 | 18.182 | 1132.7 | 0.6253 |
| 6 | 0.000 | Required | 0.5934 | 8.931 | 1055.6 | 0.5934 | 18.371 | 1133.3 | 0.5666 |
| 7 | 0.000 | | 0.5390 | 8.981 | 1059.3 | 0.5390 | 18.411 | 1132.5 | 0.5134 |
| 8 | 0.000 | | 0.4909 | 9.051 | 1064.6 | 0.4909 | 18.521 | 1135.9 | 0.4676 |
| 9 | 0.000 | | 0.4489 | 9.431 | 1093.7 | 0.4489 | 19.165 | 1158.6 | 0.4282 |
| 10 | 0.000 | | 0.4129 | 9.415 | 1092.5 | 0.4129 | 19.225 | 1165.2 | 0.3940 |
| 11 | 0.000 | | 0.3824 | 9.298 | 1083.4 | 0.3824 | 19.176 | 1171.2 | 0.3648 |
| 12 | 0.000 | | 0.3562 | 9.127 | 1070.4 | 0.3562 | 19.067 | 1176.6 | 0.3395 |
| 13 | 0.000 | | 0.3338 | 8.924 | 1055.0 | 0.3338 | 18.921 | 1181.7 | 0.3175 |
| 14 | 0.000 | | 0.3144 | 8.697 | 1038.2 | 0.3144 | 18.740 | 1185.7 | 0.2982 |
| 15 | 0.000 | | 0.2976 | 8.446 | 1019.9 | 0.2976 | 18.517 | 1188.2 | 0.2811 |
| 16 | 0.000 | | 0.2829 | 8.164 | 999.7 | 0.2829 | 18.229 | 1187.7 | 0.2659 |
| 17 | 0.000 | | 0.2699 | 7.839 | 977.1 | 0.2699 | 17.838 | 1181.8 | 0.2524 |
| 18 | 0.000 | | 0.2586 | 7.451 | 950.7 | 0.2586 | 17.280 | 1166.9 | 0.2403 |
| 19 | 0.000 | | 0.2486 | 6.981 | 919.8 | 0.2486 | 16.472 | 1137.7 | 0.2296 |
| 20 | 0.000 | | 0.2401 | 6.408 | 883.6 | 0.2401 | 15.331 | 1090.3 | 0.2204 |
| 21 | 0.000 | | 0.2329 | 5.585 | 834.2 | 0.2329 | 13.535 | 1013.9 | 0.2125 |
| 22 | 0.000 | | 0.2271 | 4.721 | 785.4 | 0.2271 | 11.470 | 927.5 | 0.2062 |
| 23 | 0.000 | | 0.2224 | 3.849 | 739.1 | 0.2224 | 9.266 | 840.8 | 0.2012 |
| 24 | 0.000 | | 0.2191 | 1.721 | 637.1 | 0.2191 | 4.227 | 679.2 | 0.1975 |
| 25 | 0.000 | | 0.2178 | 1.041 | 607.2 | 0.2178 | 2.523 | 629.9 | 0.1960 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.378 | 629.2 | 0.7396 | 5.085 | 631.1 | 0.7396 | 6.334 | 638.3 | 0.7396 |
| 2 | 14.876 | 831.5 | 0.7396 | 17.216 | 822.4 | 0.7396 | 21.244 | 843.6 | 0.7396 |
| 3 | 20.232 | 871.4 | 0.7307 | 23.112 | 843.9 | 0.7320 | 28.116 | 871.0 | 0.7323 |
| 4 | 23.008 | 912.7 | 0.6903 | 26.081 | 867.0 | 0.6938 | 31.570 | 908.4 | 0.6950 |
| 5 | 24.091 | 935.1 | 0.6382 | 27.224 | 874.3 | 0.6442 | 33.045 | 935.1 | 0.6469 |
| 6 | 24.451 | 949.0 | 0.5839 | 27.604 | 876.7 | 0.5922 | 33.698 | 957.6 | 0.5962 |
| 7 | 24.592 | 957.3 | 0.5332 | 27.754 | 877.8 | 0.5431 | 34.110 | 979.8 | 0.5481 |
| 8 | 24.757 | 961.8 | 0.4881 | 27.928 | 878.9 | 0.4990 | 34.478 | 996.6 | 0.5045 |
| 9 | 25.501 | 970.1 | 0.4482 | 28.719 | 884.7 | 0.4596 | 35.465 | 1013.8 | 0.4653 |
| 10 | 25.548 | 969.0 | 0.4137 | 28.774 | 885.7 | 0.4253 | 35.575 | 1018.7 | 0.4309 |
| 11 | 25.433 | 963.6 | 0.3839 | 28.660 | 885.8 | 0.3956 | 35.443 | 1017.1 | 0.4010 |
| 12 | 25.223 | 955.2 | 0.3581 | 28.449 | 885.7 | 0.3697 | 35.243 | 1018.1 | 0.3753 |
| 13 | 24.953 | 945.1 | 0.3356 | 28.179 | 885.7 | 0.3471 | 35.251 | 1043.3 | 0.3537 |
| 14 | 24.632 | 933.8 | 0.3158 | 27.855 | 885.3 | 0.3272 | 34.848 | 1036.1 | 0.3332 |
| 15 | 24.250 | 921.1 | 0.2983 | 27.466 | 884.5 | 0.3096 | 34.206 | 1013.3 | 0.3148 |
| 16 | 23.785 | 907.3 | 0.2827 | 26.983 | 882.2 | 0.2938 | 33.396 | 984.7 | 0.2985 |
| 17 | 23.190 | 891.5 | 0.2687 | 26.354 | 878.1 | 0.2799 | 32.385 | 952.4 | 0.2840 |
| 18 | 22.408 | 874.6 | 0.2564 | 25.519 | 871.6 | 0.2673 | 31.149 | 919.6 | 0.2714 |
| 19 | 21.375 | 858.0 | 0.2457 | 24.416 | 863.1 | 0.2565 | 29.686 | 891.3 | 0.2607 |
| 20 | 19.986 | 840.0 | 0.2365 | 22.926 | 851.0 | 0.2473 | 27.799 | 861.1 | 0.2514 |
| 21 | 17.794 | 812.1 | 0.2289 | 20.532 | 827.4 | 0.2397 | 24.891 | 823.7 | 0.2436 |
| 22 | 15.187 | 775.5 | 0.2227 | 17.635 | 794.6 | 0.2336 | 21.399 | 782.4 | 0.2373 |
| 23 | 12.219 | 726.8 | 0.2173 | 14.220 | 746.8 | 0.2280 | 17.219 | 732.4 | 0.2317 |
| 24 | 5.523 | 630.9 | 0.2132 | 6.402 | 638.6 | 0.2235 | 7.720 | 633.2 | 0.2272 |
| 25 | 3.234 | 599.8 | 0.2107 | 3.712 | 603.5 | 0.2204 | 4.442 | 601.3 | 0.2242 |

Table 4-48. LS1 Burnup and TH Feedback Parameters Assembly C25 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.766 | 605.3 | 0.7396 | 7.798 | 625.9 | 0.7396 | 7.803 | 576.1 | 0.7396 |
| 2 | 22.622 | 713.5 | 0.7396 | 25.606 | 766.4 | 0.7396 | 25.623 | 615.4 | 0.7396 |
| 3 | 29.883 | 732.9 | 0.7336 | 33.390 | 771.0 | 0.7351 | 33.409 | 615.8 | 0.7351 |
| 4 | 33.590 | 760.6 | 0.6982 | 37.274 | 783.2 | 0.7018 | 37.295 | 621.5 | 0.7018 |
| 5 | 35.268 | 783.6 | 0.6523 | 39.075 | 791.8 | 0.6585 | 39.098 | 627.3 | 0.6585 |
| 6 | 36.088 | 803.1 | 0.6039 | 40.044 | 802.3 | 0.6126 | 40.069 | 633.1 | 0.6126 |
| 7 | 36.631 | 818.7 | 0.5576 | 40.765 | 815.0 | 0.5683 | 40.793 | 641.9 | 0.5685 |
| 8 | 37.110 | 832.2 | 0.5153 | 41.451 | 830.1 | 0.5276 | 41.481 | 647.8 | 0.5277 |
| 9 | 38.209 | 846.0 | 0.4766 | 42.804 | 849.1 | 0.4898 | 42.837 | 656.7 | 0.4900 |
| 10 | 38.381 | 853.8 | 0.4425 | 43.195 | 865.7 | 0.4562 | 43.230 | 662.7 | 0.4564 |
| 11 | 38.290 | 859.0 | 0.4125 | 43.319 | 882.4 | 0.4264 | 43.356 | 668.8 | 0.4266 |
| 12 | 38.110 | 861.5 | 0.3864 | 43.343 | 898.6 | 0.4002 | 43.382 | 674.9 | 0.4004 |
| 13 | 38.102 | 859.5 | 0.3642 | 43.501 | 912.0 | 0.3774 | 43.540 | 674.9 | 0.3777 |
| 14 | 37.697 | 859.2 | 0.3435 | 43.299 | 928.7 | 0.3564 | 43.339 | 678.0 | 0.3566 |
| 15 | 37.042 | 857.6 | 0.3249 | 42.856 | 946.4 | 0.3374 | 42.896 | 678.0 | 0.3376 |
| 16 | 36.188 | 852.0 | 0.3083 | 42.205 | 963.8 | 0.3205 | 42.245 | 678.0 | 0.3207 |
| 17 | 35.094 | 841.7 | 0.2935 | 41.288 | 979.2 | 0.3053 | 41.328 | 678.0 | 0.3055 |
| 18 | 33.737 | 826.8 | 0.2806 | 40.068 | 991.3 | 0.2919 | 40.108 | 678.0 | 0.2920 |
| 19 | 32.126 | 809.0 | 0.2694 | 38.582 | 1002.5 | 0.2804 | 38.621 | 674.9 | 0.2806 |
| 20 | 30.068 | 788.9 | 0.2598 | 36.421 | 993.3 | 0.2699 | 36.458 | 668.8 | 0.2702 |
| 21 | 26.933 | 763.1 | 0.2519 | 32.909 | 960.3 | 0.2612 | 32.944 | 662.7 | 0.2614 |
| 22 | 23.181 | 734.5 | 0.2455 | 28.666 | 919.0 | 0.2543 | 28.698 | 653.7 | 0.2545 |
| 23 | 18.675 | 700.2 | 0.2398 | 23.194 | 843.3 | 0.2479 | 23.219 | 633.1 | 0.2481 |
| 24 | 8.382 | 622.7 | 0.2354 | 10.507 | 682.3 | 0.2432 | 10.518 | 593.3 | 0.2434 |
| 25 | 4.899 | 603.9 | 0.2339 | 6.125 | 629.8 | 0.2418 | 6.131 | 579.5 | 0.2420 |

Table 4-49. LS1 Burnup and TH Feedback Parameters Assembly C26

| Node No. | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|-------------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.514 | 636.5 | 0.7396 | 3.034 | 641.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.066 | 848.5 | 0.7396 | 10.245 | 874.6 | 0.7396 |
| 3 | 0.000 | | 0.7350 | 7.014 | 921.9 | 0.7350 | 14.403 | 972.5 | 0.7319 |
| 4 | 0.000 | Data | 0.6992 | 8.223 | 1003.9 | 0.6992 | 16.757 | 1059.0 | 0.6916 |
| 5 | 0.000 | Not | 0.6495 | 8.762 | 1043.0 | 0.6495 | 17.655 | 1087.8 | 0.6375 |
| 6 | 0.000 | Required | 0.5937 | 8.935 | 1055.9 | 0.5937 | 17.878 | 1091.9 | 0.5801 |
| 7 | 0.000 | | 0.5394 | 8.978 | 1059.1 | 0.5394 | 17.915 | 1091.4 | 0.5266 |
| 8 | 0.000 | | 0.4911 | 9.050 | 1064.5 | 0.4911 | 18.030 | 1094.9 | 0.4802 |
| 9 | 0.000 | | 0.4492 | 9.441 | 1094.5 | 0.4492 | 18.677 | 1116.1 | 0.4401 |
| 10 | 0.000 | | 0.4131 | 9.429 | 1093.6 | 0.4131 | 18.730 | 1121.6 | 0.4054 |
| 11 | 0.000 | | 0.3824 | 9.312 | 1084.5 | 0.3824 | 18.660 | 1125.5 | 0.3756 |
| 12 | 0.000 | | 0.3562 | 9.139 | 1071.3 | 0.3562 | 18.530 | 1129.2 | 0.3500 |
| 13 | 0.000 | | 0.3338 | 8.936 | 1055.9 | 0.3338 | 18.365 | 1132.4 | 0.3277 |
| 14 | 0.000 | | 0.3144 | 8.708 | 1039.0 | 0.3144 | 18.166 | 1134.8 | 0.3082 |
| 15 | 0.000 | | 0.2975 | 8.454 | 1020.5 | 0.2975 | 17.920 | 1135.5 | 0.2910 |
| 16 | 0.000 | | 0.2828 | 8.163 | 999.7 | 0.2828 | 17.600 | 1133.1 | 0.2756 |
| 17 | 0.000 | | 0.2699 | 7.821 | 975.8 | 0.2699 | 17.168 | 1125.4 | 0.2621 |
| 18 | 0.000 | | 0.2585 | 7.410 | 948.0 | 0.2585 | 16.561 | 1109.0 | 0.2500 |
| 19 | 0.000 | | 0.2486 | 6.908 | 915.1 | 0.2486 | 15.701 | 1079.7 | 0.2393 |
| 20 | 0.000 | | 0.2401 | 6.293 | 876.5 | 0.2401 | 14.512 | 1034.4 | 0.2300 |
| 21 | 0.000 | | 0.2330 | 5.431 | 825.3 | 0.2330 | 12.697 | 963.7 | 0.2221 |
| 22 | 0.000 | | 0.2273 | 4.540 | 775.6 | 0.2273 | 10.652 | 884.9 | 0.2157 |
| 23 | 0.000 | | 0.2228 | 3.659 | 729.4 | 0.2228 | 8.516 | 806.9 | 0.2107 |
| 24 | 0.000 | | 0.2197 | 1.614 | 632.3 | 0.2197 | 3.830 | 664.9 | 0.2072 |
| 25 | 0.000 | | 0.2185 | 0.970 | 604.1 | 0.2185 | 2.266 | 621.2 | 0.2057 |
| Node No. | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.168 | 629.7 | 0.7396 | 5.408 | 689.0 | 0.7396 | 6.874 | 652.7 | 0.7396 |
| 2 | 14.212 | 833.7 | 0.7396 | 18.194 | 1064.7 | 0.7396 | 22.838 | 896.2 | 0.7396 |
| 3 | 19.502 | 872.5 | 0.7324 | 24.234 | 1095.2 | 0.7279 | 30.002 | 930.8 | 0.7288 |
| 4 | 22.255 | 902.8 | 0.6946 | 27.109 | 1114.4 | 0.6874 | 33.410 | 975.1 | 0.6893 |
| 5 | 23.271 | 911.9 | 0.6449 | 28.086 | 1108.2 | 0.6360 | 34.685 | 1000.9 | 0.6391 |
| 6 | 23.524 | 914.3 | 0.5921 | 28.272 | 1097.7 | 0.5826 | 35.045 | 1016.2 | 0.5865 |
| 7 | 23.571 | 915.1 | 0.5425 | 28.267 | 1089.6 | 0.5330 | 35.126 | 1023.9 | 0.5370 |
| 8 | 23.693 | 915.6 | 0.4982 | 28.353 | 1084.1 | 0.4894 | 35.254 | 1027.7 | 0.4930 |
| 9 | 24.399 | 920.3 | 0.4588 | 29.082 | 1087.6 | 0.4509 | 36.041 | 1033.0 | 0.4541 |
| 10 | 24.426 | 918.2 | 0.4245 | 29.092 | 1085.0 | 0.4173 | 35.988 | 1027.3 | 0.4204 |
| 11 | 24.297 | 913.6 | 0.3948 | 28.948 | 1082.7 | 0.3882 | 35.733 | 1017.3 | 0.3912 |
| 12 | 24.085 | 907.2 | 0.3690 | 28.721 | 1080.4 | 0.3628 | 35.358 | 1004.2 | 0.3658 |
| 13 | 23.822 | 899.6 | 0.3465 | 28.441 | 1077.8 | 0.3407 | 34.897 | 988.4 | 0.3436 |
| 14 | 23.519 | 891.6 | 0.3267 | 28.117 | 1074.6 | 0.3213 | 34.365 | 970.6 | 0.3241 |
| 15 | 23.161 | 883.1 | 0.3092 | 27.731 | 1070.3 | 0.3040 | 33.740 | 950.5 | 0.3069 |
| 16 | 22.732 | 874.9 | 0.2936 | 27.258 | 1063.6 | 0.2886 | 32.989 | 927.8 | 0.2917 |
| 17 | 22.262 | 872.1 | 0.2801 | 26.714 | 1052.5 | 0.2752 | 32.117 | 901.7 | 0.2783 |
| 18 | 21.985 | 897.1 | 0.2694 | 26.302 | 1032.6 | 0.2644 | 31.313 | 871.5 | 0.2673 |
| 19 | 21.783 | 949.2 | 0.2609 | 25.902 | 1004.1 | 0.2559 | 30.493 | 840.3 | 0.2586 |
| 20 | 20.882 | 973.0 | 0.2525 | 24.786 | 974.1 | 0.2474 | 28.981 | 812.1 | 0.2500 |
| 21 | 18.866 | 956.3 | 0.2448 | 22.446 | 930.7 | 0.2396 | 26.171 | 779.8 | 0.2422 |
| 22 | 16.107 | 899.4 | 0.2375 | 19.282 | 879.4 | 0.2323 | 22.481 | 745.2 | 0.2351 |
| 23 | 12.825 | 815.6 | 0.2308 | 15.425 | 811.6 | 0.2257 | 17.956 | 703.4 | 0.2289 |
| 24 | 5.684 | 661.8 | 0.2260 | 6.850 | 664.8 | 0.2211 | 7.967 | 622.2 | 0.2245 |
| 25 | 3.285 | 616.0 | 0.2232 | 3.949 | 619.6 | 0.2185 | 4.559 | 595.0 | 0.2218 |

Table 4-49. LS1 Burnup and TH Feedback Parameters Assembly C26 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 7.446 | 620.4 | 0.7396 | 8.307 | 614.6 | 0.7396 | 8.313 | 579.3 | 0.7396 |
| 2 | 24.581 | 759.3 | 0.7396 | 27.055 | 727.4 | 0.7396 | 27.074 | 622.1 | 0.7396 |
| 3 | 32.182 | 778.7 | 0.7300 | 35.120 | 733.2 | 0.7317 | 35.142 | 624.4 | 0.7318 |
| 4 | 35.853 | 809.4 | 0.6921 | 38.998 | 746.8 | 0.6960 | 39.022 | 630.2 | 0.6961 |
| 5 | 37.329 | 833.7 | 0.6439 | 40.651 | 758.5 | 0.6507 | 40.678 | 638.9 | 0.6507 |
| 6 | 37.859 | 854.8 | 0.5933 | 41.387 | 772.5 | 0.6030 | 41.417 | 647.8 | 0.6031 |
| 7 | 38.085 | 873.3 | 0.5453 | 41.843 | 788.4 | 0.5579 | 41.875 | 653.7 | 0.5580 |
| 8 | 38.334 | 889.0 | 0.5021 | 42.333 | 805.4 | 0.5171 | 42.369 | 665.8 | 0.5172 |
| 9 | 39.257 | 907.1 | 0.4635 | 43.534 | 825.4 | 0.4801 | 43.572 | 671.9 | 0.4803 |
| 10 | 39.293 | 919.1 | 0.4297 | 43.797 | 842.2 | 0.4474 | 43.838 | 681.1 | 0.4476 |
| 11 | 39.130 | 931.7 | 0.4003 | 43.839 | 857.7 | 0.4186 | 43.862 | 687.3 | 0.4188 |
| 12 | 38.878 | 948.9 | 0.3748 | 43.772 | 871.9 | 0.3932 | 43.815 | 687.3 | 0.3933 |
| 13 | 38.545 | 967.1 | 0.3523 | 43.613 | 885.5 | 0.3706 | 43.657 | 690.5 | 0.3708 |
| 14 | 38.095 | 979.0 | 0.3325 | 43.335 | 899.2 | 0.3505 | 43.380 | 693.6 | 0.3507 |
| 15 | 37.472 | 979.3 | 0.3148 | 42.889 | 913.5 | 0.3325 | 42.933 | 690.5 | 0.3327 |
| 16 | 36.655 | 969.7 | 0.2989 | 42.239 | 927.2 | 0.3164 | 42.283 | 690.5 | 0.3166 |
| 17 | 35.661 | 952.3 | 0.2850 | 41.374 | 937.9 | 0.3021 | 41.417 | 687.3 | 0.3023 |
| 18 | 34.680 | 927.6 | 0.2734 | 40.438 | 941.7 | 0.2898 | 40.479 | 681.1 | 0.2900 |
| 19 | 33.643 | 898.3 | 0.2638 | 39.330 | 935.8 | 0.2793 | 39.370 | 678.0 | 0.2794 |
| 20 | 31.909 | 869.3 | 0.2549 | 37.426 | 921.7 | 0.2695 | 37.464 | 671.9 | 0.2697 |
| 21 | 28.812 | 833.3 | 0.2469 | 33.955 | 891.4 | 0.2609 | 33.990 | 662.7 | 0.2611 |
| 22 | 24.782 | 792.7 | 0.2397 | 29.384 | 849.6 | 0.2533 | 29.415 | 650.7 | 0.2535 |
| 23 | 19.794 | 740.6 | 0.2334 | 23.536 | 787.2 | 0.2466 | 23.561 | 633.1 | 0.2467 |
| 24 | 8.787 | 637.5 | 0.2290 | 10.492 | 657.3 | 0.2422 | 10.503 | 593.3 | 0.2424 |
| 25 | 5.003 | 602.7 | 0.2263 | 5.920 | 612.6 | 0.2388 | 5.925 | 576.7 | 0.2389 |

Table 4-50. LS1 Burnup and TH Feedback Parameters Assembly C27

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.381 | 629.5 | 0.7396 | 2.667 | 628.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.603 | 817.8 | 0.7396 | 8.950 | 815.8 | 0.7396 |
| 3 | 0.000 | | 0.7390 | 6.378 | 881.7 | 0.7390 | 12.671 | 896.8 | 0.7383 |
| 4 | 0.000 | Data | 0.7094 | 7.500 | 954.0 | 0.7094 | 14.934 | 975.8 | 0.7068 |
| 5 | 0.000 | Not | 0.6670 | 8.022 | 989.8 | 0.6670 | 15.889 | 1007.7 | 0.6623 |
| 6 | 0.000 | Required | 0.6175 | 8.220 | 1003.7 | 0.6175 | 16.204 | 1016.5 | 0.6117 |
| 7 | 0.000 | | 0.5668 | 8.296 | 1009.1 | 0.5668 | 16.320 | 1019.5 | 0.5614 |
| 8 | 0.000 | | 0.5196 | 8.388 | 1015.7 | 0.5196 | 16.487 | 1025.2 | 0.5154 |
| 9 | 0.000 | | 0.4772 | 8.774 | 1043.9 | 0.4772 | 17.166 | 1047.9 | 0.4741 |
| 10 | 0.000 | | 0.4400 | 8.783 | 1044.5 | 0.4400 | 17.254 | 1054.1 | 0.4380 |
| 11 | 0.000 | | 0.4084 | 8.694 | 1038.0 | 0.4084 | 17.215 | 1058.0 | 0.4070 |
| 12 | 0.000 | | 0.3812 | 8.557 | 1027.9 | 0.3812 | 17.121 | 1061.4 | 0.3800 |
| 13 | 0.000 | | 0.3575 | 8.389 | 1015.8 | 0.3575 | 16.994 | 1064.7 | 0.3565 |
| 14 | 0.000 | | 0.3371 | 8.195 | 1001.9 | 0.3371 | 16.832 | 1067.2 | 0.3358 |
| 15 | 0.000 | | 0.3193 | 7.971 | 986.2 | 0.3193 | 16.621 | 1068.2 | 0.3175 |
| 16 | 0.000 | | 0.3037 | 7.708 | 968.1 | 0.3037 | 16.334 | 1066.3 | 0.3012 |
| 17 | 0.000 | | 0.2900 | 7.390 | 946.6 | 0.2900 | 15.934 | 1059.8 | 0.2867 |
| 18 | 0.000 | | 0.2780 | 7.004 | 921.3 | 0.2780 | 15.370 | 1045.8 | 0.2739 |
| 19 | 0.000 | | 0.2674 | 6.533 | 891.3 | 0.2674 | 14.576 | 1020.9 | 0.2625 |
| 20 | 0.000 | | 0.2584 | 5.960 | 856.3 | 0.2584 | 13.485 | 982.4 | 0.2526 |
| 21 | 0.000 | | 0.2508 | 5.152 | 809.4 | 0.2508 | 11.817 | 921.7 | 0.2441 |
| 22 | 0.000 | | 0.2447 | 4.318 | 763.7 | 0.2447 | 9.942 | 853.7 | 0.2372 |
| 23 | 0.000 | | 0.2398 | 3.497 | 721.3 | 0.2398 | 7.988 | 785.6 | 0.2318 |
| 24 | 0.000 | | 0.2366 | 1.553 | 629.6 | 0.2366 | 3.608 | 657.1 | 0.2282 |
| 25 | 0.000 | | 0.2353 | 0.932 | 602.5 | 0.2353 | 2.126 | 616.5 | 0.2265 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 3.839 | 632.2 | 0.7396 | 4.509 | 627.3 | 0.7396 | 5.699 | 634.5 | 0.7396 |
| 2 | 13.070 | 846.2 | 0.7396 | 15.339 | 813.1 | 0.7396 | 19.262 | 834.9 | 0.7396 |
| 3 | 18.114 | 898.5 | 0.7383 | 20.901 | 833.0 | 0.7388 | 25.880 | 869.1 | 0.7385 |
| 4 | 20.877 | 937.9 | 0.7077 | 23.834 | 853.0 | 0.7094 | 29.405 | 914.9 | 0.7093 |
| 5 | 21.997 | 951.3 | 0.6649 | 25.007 | 859.4 | 0.6684 | 30.983 | 947.8 | 0.6687 |
| 6 | 22.364 | 955.5 | 0.6163 | 25.402 | 862.7 | 0.6218 | 31.689 | 973.9 | 0.6225 |
| 7 | 22.483 | 955.8 | 0.5676 | 25.543 | 865.4 | 0.5749 | 32.079 | 995.4 | 0.5756 |
| 8 | 22.633 | 954.4 | 0.5225 | 25.713 | 867.8 | 0.5310 | 32.466 | 1014.5 | 0.5314 |
| 9 | 23.356 | 958.0 | 0.4818 | 26.486 | 873.9 | 0.4910 | 33.488 | 1036.9 | 0.4911 |
| 10 | 23.389 | 953.5 | 0.4462 | 26.531 | 875.4 | 0.4558 | 33.614 | 1044.3 | 0.4553 |
| 11 | 23.271 | 947.0 | 0.4155 | 26.419 | 876.1 | 0.4253 | 33.473 | 1041.6 | 0.4243 |
| 12 | 23.075 | 938.8 | 0.3888 | 26.223 | 876.1 | 0.3986 | 33.175 | 1032.3 | 0.3973 |
| 13 | 22.828 | 929.1 | 0.3654 | 25.975 | 876.0 | 0.3753 | 32.792 | 1020.2 | 0.3737 |
| 14 | 22.533 | 918.6 | 0.3449 | 25.676 | 875.5 | 0.3546 | 32.348 | 1007.3 | 0.3530 |
| 15 | 22.174 | 907.0 | 0.3267 | 25.309 | 874.5 | 0.3363 | 31.811 | 992.4 | 0.3346 |
| 16 | 21.724 | 894.4 | 0.3105 | 24.843 | 872.5 | 0.3200 | 31.107 | 971.9 | 0.3184 |
| 17 | 21.141 | 880.6 | 0.2961 | 24.232 | 869.1 | 0.3055 | 30.154 | 943.3 | 0.3040 |
| 18 | 20.379 | 865.8 | 0.2834 | 23.427 | 863.9 | 0.2927 | 28.934 | 909.9 | 0.2912 |
| 19 | 19.379 | 850.7 | 0.2721 | 22.364 | 856.4 | 0.2813 | 27.462 | 878.1 | 0.2801 |
| 20 | 18.044 | 833.2 | 0.2624 | 20.935 | 845.2 | 0.2716 | 25.632 | 848.1 | 0.2705 |
| 21 | 15.968 | 804.7 | 0.2543 | 18.662 | 822.3 | 0.2634 | 22.861 | 812.3 | 0.2624 |
| 22 | 13.528 | 767.0 | 0.2475 | 15.935 | 790.1 | 0.2567 | 19.554 | 772.7 | 0.2557 |
| 23 | 10.807 | 718.5 | 0.2418 | 12.761 | 741.9 | 0.2508 | 15.646 | 725.2 | 0.2500 |
| 24 | 4.829 | 626.9 | 0.2379 | 5.671 | 635.3 | 0.2465 | 6.940 | 630.5 | 0.2458 |
| 25 | 2.797 | 597.7 | 0.2358 | 3.253 | 601.6 | 0.2439 | 3.963 | 600.3 | 0.2434 |

Table 4-50. LS1 Burnup and TH Feedback Parameters Assembly C27 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.420 | 636.9 | 0.7396 | 7.804 | 649.5 | 0.7396 | 7.813 | 589.0 | 0.7396 |
| 2 | 21.570 | 835.2 | 0.7396 | 25.654 | 856.8 | 0.7396 | 25.679 | 642.7 | 0.7396 |
| 3 | 28.833 | 872.5 | 0.7384 | 33.654 | 866.3 | 0.7382 | 33.685 | 650.7 | 0.7382 |
| 4 | 32.744 | 923.8 | 0.7092 | 37.741 | 879.9 | 0.7092 | 37.774 | 656.7 | 0.7092 |
| 5 | 34.570 | 958.4 | 0.6687 | 39.590 | 881.7 | 0.6694 | 39.626 | 665.8 | 0.6695 |
| 6 | 35.424 | 979.7 | 0.6225 | 40.476 | 884.3 | 0.6243 | 40.514 | 671.9 | 0.6244 |
| 7 | 35.905 | 993.1 | 0.5754 | 41.035 | 890.4 | 0.5785 | 41.076 | 681.1 | 0.5786 |
| 8 | 36.366 | 1004.1 | 0.5310 | 41.620 | 900.3 | 0.5351 | 41.663 | 687.3 | 0.5353 |
| 9 | 37.492 | 1019.8 | 0.4904 | 42.948 | 916.7 | 0.4953 | 42.994 | 696.8 | 0.4955 |
| 10 | 37.668 | 1027.4 | 0.4546 | 43.302 | 931.3 | 0.4599 | 43.349 | 700.0 | 0.4601 |
| 11 | 37.551 | 1031.1 | 0.4235 | 43.372 | 947.0 | 0.4290 | 43.421 | 706.4 | 0.4292 |
| 12 | 37.271 | 1033.9 | 0.3964 | 43.284 | 963.5 | 0.4019 | 43.333 | 706.4 | 0.4020 |
| 13 | 36.893 | 1034.7 | 0.3726 | 43.103 | 980.6 | 0.3780 | 43.153 | 709.6 | 0.3781 |
| 14 | 36.427 | 1031.3 | 0.3517 | 42.836 | 998.3 | 0.3569 | 42.886 | 709.6 | 0.3571 |
| 15 | 35.829 | 1021.9 | 0.3333 | 42.434 | 1016.0 | 0.3381 | 42.482 | 703.2 | 0.3383 |
| 16 | 35.016 | 1005.4 | 0.3170 | 41.808 | 1033.3 | 0.3213 | 41.856 | 703.2 | 0.3215 |
| 17 | 33.904 | 981.9 | 0.3026 | 40.856 | 1048.3 | 0.3064 | 40.902 | 696.8 | 0.3066 |
| 18 | 32.481 | 952.7 | 0.2898 | 39.533 | 1057.8 | 0.2931 | 39.578 | 693.6 | 0.2932 |
| 19 | 30.801 | 923.8 | 0.2787 | 37.858 | 1058.2 | 0.2813 | 37.901 | 687.3 | 0.2814 |
| 20 | 28.767 | 896.3 | 0.2691 | 35.687 | 1045.2 | 0.2708 | 35.729 | 684.2 | 0.2709 |
| 21 | 25.738 | 862.8 | 0.2609 | 32.241 | 1006.7 | 0.2618 | 32.279 | 671.9 | 0.2619 |
| 22 | 22.115 | 823.5 | 0.2541 | 27.961 | 949.2 | 0.2542 | 27.994 | 656.7 | 0.2543 |
| 23 | 17.759 | 771.1 | 0.2482 | 22.569 | 865.4 | 0.2478 | 22.596 | 638.9 | 0.2479 |
| 24 | 7.910 | 651.8 | 0.2441 | 10.167 | 690.3 | 0.2433 | 10.179 | 596.1 | 0.2434 |
| 25 | 4.518 | 612.8 | 0.2417 | 5.803 | 633.1 | 0.2408 | 5.809 | 579.5 | 0.2409 |

Table 4-51. LS1 Burnup and TH Feedback Parameters Assembly C28

| Node | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|------|--------------------------|------------|----------------------|-------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.934 | 659.0 | 0.7396 | 3.737 | 657.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.373 | 940.8 | 0.7396 | 12.523 | 948.0 | 0.7396 |
| 3 | 0.000 | | 0.7205 | 8.698 | 1038.3 | 0.7205 | 17.055 | 1045.1 | 0.7187 |
| 4 | 0.000 | Data | 0.6668 | 9.963 | 1136.0 | 0.6668 | 19.245 | 1120.0 | 0.6631 |
| 5 | 0.000 | Not | 0.5998 | 10.318 | 1165.1 | 0.5998 | 19.845 | 1140.7 | 0.5963 |
| 6 | 0.000 | Required | 0.5348 | 10.257 | 1160.0 | 0.5348 | 19.845 | 1146.0 | 0.5333 |
| 7 | 0.000 | | 0.4796 | 10.119 | 1148.7 | 0.4796 | 19.754 | 1150.0 | 0.4802 |
| 8 | 0.000 | | 0.4345 | 10.060 | 1143.8 | 0.4345 | 19.772 | 1156.7 | 0.4362 |
| 9 | 0.000 | | 0.3966 | 10.380 | 1170.2 | 0.3966 | 20.356 | 1179.8 | 0.3987 |
| 10 | 0.000 | | 0.3641 | 10.310 | 1164.4 | 0.3641 | 20.382 | 1188.3 | 0.3665 |
| 11 | 0.000 | | 0.3368 | 10.165 | 1152.4 | 0.3368 | 20.321 | 1195.8 | 0.3392 |
| 12 | 0.000 | | 0.3137 | 9.984 | 1137.7 | 0.3137 | 20.217 | 1202.8 | 0.3157 |
| 13 | 0.000 | | 0.2938 | 9.784 | 1121.6 | 0.2938 | 20.087 | 1209.1 | 0.2953 |
| 14 | 0.000 | | 0.2767 | 9.570 | 1104.6 | 0.2767 | 19.927 | 1214.0 | 0.2773 |
| 15 | 0.000 | | 0.2616 | 9.340 | 1086.7 | 0.2616 | 19.726 | 1216.7 | 0.2614 |
| 16 | 0.000 | | 0.2485 | 9.089 | 1067.5 | 0.2485 | 19.463 | 1215.6 | 0.2472 |
| 17 | 0.000 | | 0.2370 | 8.813 | 1046.8 | 0.2370 | 19.114 | 1208.9 | 0.2346 |
| 18 | 0.000 | | 0.2268 | 8.501 | 1023.9 | 0.2268 | 18.636 | 1194.0 | 0.2233 |
| 19 | 0.000 | | 0.2178 | 8.107 | 995.7 | 0.2178 | 17.937 | 1166.9 | 0.2133 |
| 20 | 0.000 | | 0.2099 | 7.567 | 958.5 | 0.2099 | 16.894 | 1123.8 | 0.2044 |
| 21 | 0.000 | | 0.2029 | 6.681 | 900.6 | 0.2029 | 15.107 | 1050.5 | 0.1967 |
| 22 | 0.000 | | 0.1972 | 5.699 | 840.8 | 0.1972 | 12.963 | 963.5 | 0.1904 |
| 23 | 0.000 | | 0.1926 | 4.697 | 784.1 | 0.1926 | 10.593 | 870.9 | 0.1853 |
| 24 | 0.000 | | 0.1891 | 2.150 | 656.6 | 0.1891 | 4.919 | 692.5 | 0.1816 |
| 25 | 0.000 | | 0.1878 | 1.322 | 619.4 | 0.1878 | 2.972 | 637.7 | 0.1800 |
| Node | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.142 | 647.2 | 0.7396 | 5.997 | 646.8 | 0.7396 | 6.881 | 614.7 | 0.7396 |
| 2 | 17.340 | 905.2 | 0.7396 | 20.099 | 878.9 | 0.7396 | 22.915 | 748.1 | 0.7396 |
| 3 | 23.200 | 954.3 | 0.7221 | 26.595 | 906.9 | 0.7238 | 30.130 | 767.1 | 0.7263 |
| 4 | 25.980 | 1004.1 | 0.6713 | 29.608 | 937.0 | 0.6753 | 33.538 | 793.7 | 0.6816 |
| 5 | 26.822 | 1025.3 | 0.6095 | 30.523 | 946.7 | 0.6162 | 34.754 | 814.6 | 0.6270 |
| 6 | 26.899 | 1032.2 | 0.5493 | 30.611 | 948.2 | 0.5582 | 35.096 | 832.7 | 0.5734 |
| 7 | 26.805 | 1031.9 | 0.4969 | 30.505 | 946.6 | 0.5068 | 35.210 | 848.7 | 0.5254 |
| 8 | 26.807 | 1030.5 | 0.4526 | 30.494 | 944.8 | 0.4629 | 35.422 | 865.2 | 0.4838 |
| 9 | 27.448 | 1035.6 | 0.4144 | 31.166 | 949.0 | 0.4246 | 36.533 | 898.8 | 0.4475 |
| 10 | 27.404 | 1029.3 | 0.3818 | 31.105 | 946.7 | 0.3920 | 37.475 | 981.0 | 0.4177 |
| 11 | 27.227 | 1019.0 | 0.3540 | 30.907 | 943.9 | 0.3640 | 37.592 | 1008.4 | 0.3884 |
| 12 | 26.977 | 1006.3 | 0.3299 | 30.636 | 941.1 | 0.3399 | 37.381 | 1013.8 | 0.3622 |
| 13 | 26.683 | 992.1 | 0.3090 | 30.322 | 938.5 | 0.3188 | 37.271 | 1032.1 | 0.3403 |
| 14 | 26.347 | 977.2 | 0.2907 | 29.964 | 935.6 | 0.3002 | 36.844 | 1025.8 | 0.3199 |
| 15 | 25.955 | 961.2 | 0.2744 | 29.546 | 932.2 | 0.2839 | 36.251 | 1010.2 | 0.3018 |
| 16 | 25.479 | 943.8 | 0.2600 | 29.035 | 927.6 | 0.2692 | 35.611 | 998.8 | 0.2861 |
| 17 | 24.881 | 923.8 | 0.2472 | 28.383 | 920.6 | 0.2562 | 34.685 | 975.2 | 0.2718 |
| 18 | 24.125 | 902.1 | 0.2357 | 27.546 | 910.2 | 0.2446 | 33.512 | 947.0 | 0.2590 |
| 19 | 23.154 | 881.3 | 0.2256 | 26.474 | 897.4 | 0.2343 | 32.115 | 920.5 | 0.2480 |
| 20 | 21.821 | 859.7 | 0.2167 | 25.008 | 880.9 | 0.2254 | 30.257 | 889.7 | 0.2383 |
| 21 | 19.601 | 828.6 | 0.2092 | 22.548 | 851.8 | 0.2178 | 27.253 | 848.7 | 0.2301 |
| 22 | 16.877 | 788.6 | 0.2030 | 19.490 | 813.1 | 0.2116 | 23.543 | 802.2 | 0.2234 |
| 23 | 13.710 | 737.0 | 0.1976 | 15.829 | 759.1 | 0.2060 | 19.026 | 745.0 | 0.2173 |
| 24 | 6.296 | 635.3 | 0.1936 | 7.239 | 644.4 | 0.2017 | 8.639 | 637.7 | 0.2126 |
| 25 | 3.733 | 602.4 | 0.1912 | 4.252 | 607.0 | 0.1989 | 5.009 | 602.8 | 0.2092 |

Table 4-51. LS1 Burnup and TH Feedback Parameters Assembly C28 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 7.251 | 598.7 | 0.7396 | 8.190 | 619.7 | 0.7396 | 8.195 | 576.1 | 0.7396 |
| 2 | 24.071 | 686.8 | 0.7396 | 26.761 | 743.7 | 0.7396 | 26.775 | 605.4 | 0.7396 |
| 3 | 31.594 | 701.0 | 0.7276 | 34.761 | 748.2 | 0.7296 | 34.778 | 610.2 | 0.7297 |
| 4 | 35.199 | 721.6 | 0.6850 | 38.558 | 761.0 | 0.6896 | 38.577 | 615.8 | 0.6897 |
| 5 | 36.579 | 739.1 | 0.6330 | 40.100 | 772.0 | 0.6410 | 40.120 | 618.7 | 0.641 |
| 6 | 37.064 | 754.8 | 0.5820 | 40.769 | 784.7 | 0.5929 | 40.792 | 627.3 | 0.593 |
| 7 | 37.292 | 767.6 | 0.5361 | 41.201 | 799.0 | 0.5496 | 41.225 | 630.2 | 0.5498 |
| 8 | 37.593 | 777.7 | 0.4960 | 41.704 | 813.4 | 0.5112 | 41.731 | 638.9 | 0.5114 |
| 9 | 38.778 | 786.2 | 0.4603 | 43.100 | 828.7 | 0.4764 | 43.129 | 644.8 | 0.4766 |
| 10 | 39.713 | 785.4 | 0.4304 | 44.133 | 836.0 | 0.4463 | 44.163 | 647.8 | 0.4465 |
| 11 | 39.849 | 787.5 | 0.4011 | 44.428 | 847.9 | 0.4174 | 44.460 | 653.7 | 0.4176 |
| 12 | 39.661 | 790.2 | 0.3750 | 44.418 | 861.4 | 0.3914 | 44.451 | 656.7 | 0.3916 |
| 13 | 39.556 | 790.8 | 0.3529 | 44.464 | 873.0 | 0.3690 | 44.498 | 659.7 | 0.3692 |
| 14 | 39.153 | 793.6 | 0.3325 | 44.239 | 886.9 | 0.3485 | 44.273 | 659.7 | 0.3488 |
| 15 | 38.584 | 796.4 | 0.3143 | 43.849 | 901.2 | 0.3302 | 43.884 | 662.7 | 0.3304 |
| 16 | 37.947 | 796.7 | 0.2985 | 43.370 | 914.0 | 0.3141 | 43.404 | 659.7 | 0.3142 |
| 17 | 37.007 | 795.1 | 0.2840 | 42.577 | 926.0 | 0.2993 | 42.611 | 659.7 | 0.2995 |
| 18 | 35.800 | 791.1 | 0.2711 | 41.483 | 935.4 | 0.2862 | 41.516 | 656.7 | 0.2864 |
| 19 | 34.359 | 786.0 | 0.2600 | 40.105 | 940.7 | 0.2748 | 40.136 | 650.7 | 0.2749 |
| 20 | 32.538 | 790.3 | 0.2507 | 38.222 | 935.5 | 0.2651 | 38.252 | 647.8 | 0.2653 |
| 21 | 29.853 | 828.3 | 0.2449 | 35.152 | 903.9 | 0.2581 | 35.180 | 641.9 | 0.2582 |
| 22 | 26.006 | 811.8 | 0.2385 | 30.792 | 863.6 | 0.2512 | 30.817 | 633.1 | 0.2513 |
| 23 | 21.033 | 759.2 | 0.2319 | 24.963 | 800.5 | 0.2441 | 24.983 | 618.7 | 0.2442 |
| 24 | 9.533 | 644.5 | 0.2266 | 11.370 | 665.1 | 0.2388 | 11.379 | 587.8 | 0.2389 |
| 25 | 5.516 | 608.4 | 0.2230 | 6.537 | 618.3 | 0.2351 | 6.541 | 573.9 | 0.2353 |

Table 4-52. LS1 Burnup and TH Feedback Parameters Assembly C29

| Node No. | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|-------------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.882 | 656.2 | 0.7396 | 3.675 | 656.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.253 | 932.0 | 0.7396 | 12.391 | 947.0 | 0.7396 |
| 3 | 0.000 | | 0.7230 | 8.587 | 1030.1 | 0.7230 | 16.960 | 1046.4 | 0.7209 |
| 4 | 0.000 | Data | 0.6714 | 9.882 | 1129.4 | 0.6714 | 19.179 | 1121.2 | 0.6675 |
| 5 | 0.000 | Not | 0.6055 | 10.270 | 1161.1 | 0.6055 | 19.776 | 1138.9 | 0.6016 |
| 6 | 0.000 | Required | 0.5403 | 10.231 | 1157.9 | 0.5403 | 19.752 | 1140.2 | 0.5381 |
| 7 | 0.000 | | 0.4843 | 10.102 | 1147.3 | 0.4843 | 19.637 | 1141.4 | 0.4841 |
| 8 | 0.000 | | 0.4385 | 10.051 | 1143.1 | 0.4385 | 19.640 | 1146.0 | 0.4395 |
| 9 | 0.000 | | 0.4001 | 10.370 | 1169.4 | 0.4001 | 20.210 | 1167.8 | 0.4017 |
| 10 | 0.000 | | 0.3672 | 10.293 | 1163.0 | 0.3672 | 20.220 | 1175.5 | 0.3693 |
| 11 | 0.000 | | 0.3395 | 10.131 | 1149.7 | 0.3395 | 20.135 | 1182.3 | 0.3417 |
| 12 | 0.000 | | 0.3162 | 9.931 | 1133.4 | 0.3162 | 20.006 | 1188.6 | 0.3180 |
| 13 | 0.000 | | 0.2962 | 9.712 | 1115.8 | 0.2962 | 19.852 | 1194.4 | 0.2975 |
| 14 | 0.000 | | 0.2789 | 9.477 | 1097.3 | 0.2789 | 19.669 | 1199.1 | 0.2794 |
| 15 | 0.000 | | 0.2639 | 9.222 | 1077.6 | 0.2639 | 19.447 | 1202.1 | 0.2634 |
| 16 | 0.000 | | 0.2506 | 8.941 | 1056.3 | 0.2506 | 19.165 | 1202.0 | 0.2492 |
| 17 | 0.000 | | 0.2389 | 8.625 | 1032.9 | 0.2389 | 18.791 | 1196.7 | 0.2364 |
| 18 | 0.000 | | 0.2285 | 8.249 | 1005.8 | 0.2285 | 18.277 | 1184.4 | 0.2250 |
| 19 | 0.000 | | 0.2195 | 7.781 | 973.1 | 0.2195 | 17.541 | 1160.8 | 0.2149 |
| 20 | 0.000 | | 0.2115 | 7.184 | 933.0 | 0.2115 | 16.479 | 1121.1 | 0.2059 |
| 21 | 0.000 | | 0.2048 | 6.292 | 876.4 | 0.2048 | 14.704 | 1049.4 | 0.1982 |
| 22 | 0.000 | | 0.1994 | 5.334 | 819.7 | 0.1994 | 12.573 | 961.7 | 0.1919 |
| 23 | 0.000 | | 0.1950 | 4.357 | 765.8 | 0.1950 | 10.200 | 867.5 | 0.1869 |
| 24 | 0.000 | | 0.1918 | 1.963 | 648.0 | 0.1918 | 4.677 | 689.7 | 0.1834 |
| 25 | 0.000 | | 0.1906 | 1.198 | 614.0 | 0.1906 | 2.806 | 635.8 | 0.1819 |
| Node No. | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 5.454 | 672.1 | 0.7396 | 6.217 | 637.0 | 0.7396 | 7.299 | 627.4 | 0.7396 |
| 2 | 18.324 | 1007.5 | 0.7396 | 20.749 | 833.6 | 0.7396 | 24.048 | 784.9 | 0.7396 |
| 3 | 24.299 | 1058.0 | 0.7186 | 27.285 | 856.5 | 0.7205 | 31.327 | 801.4 | 0.7236 |
| 4 | 26.968 | 1100.1 | 0.6648 | 30.194 | 885.7 | 0.6693 | 34.644 | 830.2 | 0.6767 |
| 5 | 27.627 | 1106.0 | 0.6000 | 30.988 | 902.6 | 0.6076 | 35.771 | 854.4 | 0.6203 |
| 6 | 27.539 | 1099.9 | 0.5380 | 30.994 | 914.6 | 0.5484 | 36.067 | 876.2 | 0.5656 |
| 7 | 27.345 | 1092.4 | 0.4854 | 30.866 | 923.1 | 0.4975 | 36.163 | 893.4 | 0.5176 |
| 8 | 27.283 | 1086.2 | 0.4420 | 30.844 | 928.3 | 0.4547 | 36.290 | 905.0 | 0.4761 |
| 9 | 27.888 | 1089.5 | 0.4050 | 31.503 | 935.3 | 0.4178 | 37.080 | 915.4 | 0.4390 |
| 10 | 27.872 | 1087.1 | 0.3734 | 31.493 | 936.1 | 0.3860 | 37.085 | 916.6 | 0.4067 |
| 11 | 27.705 | 1079.4 | 0.3462 | 31.324 | 935.8 | 0.3585 | 36.882 | 913.9 | 0.3784 |
| 12 | 27.485 | 1070.9 | 0.3228 | 31.095 | 934.7 | 0.3348 | 36.577 | 907.9 | 0.3538 |
| 13 | 27.303 | 1068.3 | 0.3030 | 30.892 | 931.9 | 0.3145 | 36.257 | 898.7 | 0.3325 |
| 14 | 26.998 | 1057.0 | 0.2850 | 30.570 | 929.7 | 0.2962 | 35.798 | 888.1 | 0.3134 |
| 15 | 26.597 | 1040.8 | 0.2688 | 30.147 | 926.8 | 0.2799 | 35.214 | 875.7 | 0.2963 |
| 16 | 26.096 | 1021.2 | 0.2545 | 29.612 | 922.4 | 0.2653 | 34.486 | 861.2 | 0.2811 |
| 17 | 25.460 | 998.4 | 0.2417 | 28.929 | 916.4 | 0.2524 | 33.574 | 844.3 | 0.2675 |
| 18 | 24.655 | 973.6 | 0.2303 | 28.113 | 914.9 | 0.2411 | 32.494 | 825.2 | 0.2556 |
| 19 | 23.629 | 949.6 | 0.2202 | 27.303 | 943.1 | 0.2320 | 31.372 | 803.3 | 0.2456 |
| 20 | 22.258 | 924.8 | 0.2114 | 26.141 | 971.2 | 0.2242 | 29.871 | 780.1 | 0.2370 |
| 21 | 20.030 | 889.6 | 0.2041 | 23.742 | 948.2 | 0.2169 | 27.060 | 752.8 | 0.2293 |
| 22 | 17.381 | 851.1 | 0.1987 | 20.836 | 914.6 | 0.2115 | 23.669 | 722.0 | 0.2235 |
| 23 | 14.098 | 787.6 | 0.1939 | 16.952 | 840.9 | 0.2062 | 19.186 | 685.6 | 0.2177 |
| 24 | 6.423 | 655.7 | 0.1903 | 7.711 | 676.2 | 0.2020 | 8.690 | 614.7 | 0.2133 |
| 25 | 3.795 | 614.4 | 0.1885 | 4.516 | 624.6 | 0.1996 | 5.037 | 590.3 | 0.2099 |

Table 4-52. LS1 Burnup and TH Feedback Parameters Assembly C29 (Continued)

| Node No. | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 7.656 | 597.3 | 0.7396 | 8.212 | 594.9 | 0.7396 | 8.218 | 579.3 | 0.7396 |
| 2 | 25.095 | 674.0 | 0.7396 | 26.658 | 661.8 | 0.7396 | 26.676 | 618.8 | 0.7396 |
| 3 | 32.602 | 681.8 | 0.7249 | 34.432 | 664.7 | 0.7265 | 34.454 | 624.4 | 0.7265 |
| 4 | 36.062 | 696.3 | 0.6797 | 38.027 | 672.7 | 0.6836 | 38.051 | 630.2 | 0.6836 |
| 5 | 37.335 | 711.4 | 0.6254 | 39.443 | 681.3 | 0.6322 | 39.469 | 636.0 | 0.6322 |
| 6 | 37.787 | 727.8 | 0.5733 | 40.073 | 692.1 | 0.5831 | 40.102 | 644.8 | 0.5832 |
| 7 | 38.040 | 744.8 | 0.5277 | 40.529 | 704.6 | 0.5406 | 40.561 | 653.7 | 0.5408 |
| 8 | 38.317 | 761.4 | 0.4881 | 41.026 | 718.5 | 0.5039 | 41.060 | 659.7 | 0.5041 |
| 9 | 39.272 | 780.1 | 0.4525 | 42.236 | 734.9 | 0.4707 | 42.273 | 668.8 | 0.4710 |
| 10 | 39.419 | 796.5 | 0.4214 | 42.607 | 749.6 | 0.4418 | 42.646 | 674.9 | 0.4420 |
| 11 | 39.372 | 815.0 | 0.3941 | 42.771 | 763.7 | 0.4162 | 42.813 | 684.2 | 0.4164 |
| 12 | 39.257 | 838.1 | 0.3704 | 42.850 | 776.9 | 0.3937 | 42.892 | 684.2 | 0.3939 |
| 13 | 39.130 | 862.3 | 0.3496 | 42.899 | 789.1 | 0.3735 | 42.943 | 690.5 | 0.3737 |
| 14 | 38.808 | 879.9 | 0.3304 | 42.760 | 802.0 | 0.3549 | 42.803 | 687.4 | 0.3550 |
| 15 | 38.275 | 886.5 | 0.3128 | 42.417 | 815.6 | 0.3376 | 42.460 | 687.3 | 0.3378 |
| 16 | 37.532 | 884.6 | 0.2967 | 41.859 | 829.1 | 0.3219 | 41.903 | 690.5 | 0.3221 |
| 17 | 36.560 | 876.8 | 0.2822 | 41.049 | 841.1 | 0.3077 | 41.092 | 687.3 | 0.3078 |
| 18 | 35.383 | 864.3 | 0.2695 | 39.984 | 849.5 | 0.2949 | 40.027 | 687.3 | 0.2950 |
| 19 | 34.124 | 847.0 | 0.2587 | 38.745 | 851.0 | 0.2836 | 38.786 | 681.1 | 0.2837 |
| 20 | 32.450 | 825.7 | 0.2493 | 36.984 | 844.5 | 0.2735 | 37.025 | 681.1 | 0.2737 |
| 21 | 29.403 | 797.6 | 0.2410 | 33.686 | 825.9 | 0.2649 | 33.724 | 671.9 | 0.2651 |
| 22 | 25.712 | 763.2 | 0.2347 | 29.576 | 795.8 | 0.2580 | 29.610 | 659.7 | 0.2581 |
| 23 | 20.817 | 718.4 | 0.2285 | 23.979 | 747.9 | 0.2512 | 24.007 | 641.9 | 0.2513 |
| 24 | 9.407 | 627.8 | 0.2237 | 10.830 | 641.0 | 0.2458 | 10.842 | 596.1 | 0.2460 |
| 25 | 5.413 | 596.6 | 0.2195 | 6.157 | 603.1 | 0.2399 | 6.164 | 582.2 | 0.2401 |

Table 4-53. LS1 Burnup and TH Feedback Parameters Assembly C30

| Node No. | Datapoint 3 (BOC Cy 5) | | | Datapoint 4 (239.5 EFPD Cy 5) | | | Datapoint 5 (BOC Cy 6) | | |
|-------------|--------------------------|-------------------|------------------------------------|-------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 5 | 0.00 Cy 5 | 0.00 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 239.5 Cy 5 | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 |
| 1 | 0.000 | | 0.7396 | 1.397 | 630.3 | 0.7396 | 3.077 | 650.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.659 | 821.5 | 0.7396 | 10.319 | 910.3 | 0.7396 |
| 3 | 0.000 | | 0.7382 | 6.453 | 886.4 | 0.7382 | 14.430 | 1015.9 | 0.7300 |
| 4 | 0.000 | Data | 0.7070 | 7.622 | 962.2 | 0.7070 | 16.747 | 1106.9 | 0.6879 |
| 5 | 0.000 | Not | 0.6627 | 8.214 | 1003.3 | 0.6627 | 17.650 | 1133.0 | 0.6331 |
| 6 | 0.000 | Required | 0.6110 | 8.471 | 1021.7 | 0.6110 | 17.914 | 1133.6 | 0.5763 |
| 7 | 0.000 | | 0.5587 | 8.587 | 1030.1 | 0.5587 | 18.003 | 1131.3 | 0.5239 |
| 8 | 0.000 | | 0.5105 | 8.706 | 1038.8 | 0.5105 | 18.148 | 1133.5 | 0.4781 |
| 9 | 0.000 | | 0.4674 | 9.115 | 1069.4 | 0.4674 | 18.818 | 1155.9 | 0.4381 |
| 10 | 0.000 | | 0.4301 | 9.125 | 1070.2 | 0.4301 | 18.893 | 1161.5 | 0.4032 |
| 11 | 0.000 | | 0.3984 | 9.025 | 1062.6 | 0.3984 | 18.844 | 1166.0 | 0.3734 |
| 12 | 0.000 | | 0.3713 | 8.865 | 1050.6 | 0.3713 | 18.732 | 1170.2 | 0.3476 |
| 13 | 0.000 | | 0.3480 | 8.671 | 1036.3 | 0.3480 | 18.580 | 1173.9 | 0.3251 |
| 14 | 0.000 | | 0.3278 | 8.452 | 1020.3 | 0.3278 | 18.391 | 1176.5 | 0.3054 |
| 15 | 0.000 | | 0.3103 | 8.206 | 1002.7 | 0.3103 | 18.154 | 1177.3 | 0.2879 |
| 16 | 0.000 | | 0.2950 | 7.927 | 983.1 | 0.2950 | 17.844 | 1174.6 | 0.2725 |
| 17 | 0.000 | | 0.2815 | 7.602 | 960.9 | 0.2815 | 17.421 | 1166.0 | 0.2587 |
| 18 | 0.000 | | 0.2698 | 7.213 | 934.9 | 0.2698 | 16.826 | 1148.1 | 0.2465 |
| 19 | 0.000 | | 0.2595 | 6.742 | 904.5 | 0.2595 | 15.982 | 1116.5 | 0.2358 |
| 20 | 0.000 | | 0.2507 | 6.171 | 869.0 | 0.2507 | 14.815 | 1067.8 | 0.2264 |
| 21 | 0.000 | | 0.2433 | 5.361 | 821.2 | 0.2433 | 13.021 | 992.3 | 0.2185 |
| 22 | 0.000 | | 0.2373 | 4.521 | 774.5 | 0.2373 | 10.988 | 908.4 | 0.2122 |
| 23 | 0.000 | | 0.2325 | 3.681 | 730.6 | 0.2325 | 8.859 | 826.2 | 0.2073 |
| 24 | 0.000 | | 0.2292 | 1.646 | 633.7 | 0.2292 | 4.038 | 673.6 | 0.2035 |
| 25 | 0.000 | | 0.2278 | 0.992 | 605.1 | 0.2278 | 2.407 | 626.7 | 0.2020 |
| Node No. | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 |
| 1 | 4.962 | 679.2 | 0.7396 | 6.070 | 674.3 | 0.7396 | 7.541 | 653.0 | 0.7396 |
| 2 | 16.752 | 1056.8 | 0.7396 | 20.300 | 994.9 | 0.7396 | 24.800 | 883.6 | 0.7396 |
| 3 | 22.533 | 1130.6 | 0.7232 | 26.842 | 1031.4 | 0.7227 | 32.448 | 917.7 | 0.7246 |
| 4 | 25.341 | 1179.9 | 0.6755 | 29.874 | 1064.7 | 0.6752 | 36.100 | 968.7 | 0.6793 |
| 5 | 26.230 | 1178.5 | 0.6171 | 30.800 | 1070.3 | 0.6169 | 37.437 | 1004.2 | 0.6234 |
| 6 | 26.339 | 1162.7 | 0.5588 | 30.894 | 1068.0 | 0.5588 | 37.803 | 1028.4 | 0.5668 |
| 7 | 26.279 | 1147.7 | 0.5069 | 30.810 | 1064.4 | 0.5070 | 37.887 | 1043.7 | 0.5152 |
| 8 | 26.307 | 1136.1 | 0.4624 | 30.810 | 1060.2 | 0.4628 | 38.009 | 1055.0 | 0.4705 |
| 9 | 26.966 | 1135.0 | 0.4243 | 31.481 | 1062.0 | 0.4249 | 38.818 | 1067.9 | 0.4319 |
| 10 | 26.925 | 1123.6 | 0.3912 | 31.413 | 1057.9 | 0.3920 | 38.736 | 1066.6 | 0.3985 |
| 11 | 26.738 | 1110.2 | 0.3627 | 31.200 | 1054.0 | 0.3638 | 38.434 | 1058.3 | 0.3698 |
| 12 | 26.468 | 1095.0 | 0.3382 | 30.907 | 1050.6 | 0.3394 | 38.000 | 1045.2 | 0.3450 |
| 13 | 26.146 | 1079.0 | 0.3168 | 30.563 | 1047.3 | 0.3182 | 37.475 | 1028.7 | 0.3234 |
| 14 | 25.774 | 1062.0 | 0.2982 | 30.170 | 1044.2 | 0.2995 | 36.860 | 1008.9 | 0.3045 |
| 15 | 25.337 | 1043.8 | 0.2817 | 29.711 | 1041.0 | 0.2831 | 36.127 | 985.0 | 0.2879 |
| 16 | 24.802 | 1023.6 | 0.2671 | 29.156 | 1038.0 | 0.2685 | 35.237 | 956.5 | 0.2731 |
| 17 | 24.120 | 1001.0 | 0.2541 | 28.449 | 1034.4 | 0.2555 | 34.131 | 923.8 | 0.2600 |
| 18 | 23.241 | 976.8 | 0.2425 | 27.519 | 1026.9 | 0.2439 | 32.774 | 890.1 | 0.2484 |
| 19 | 22.114 | 953.2 | 0.2323 | 26.297 | 1013.2 | 0.2335 | 31.144 | 859.2 | 0.2381 |
| 20 | 20.638 | 928.3 | 0.2233 | 24.651 | 989.2 | 0.2245 | 29.127 | 832.0 | 0.2292 |
| 21 | 18.340 | 889.0 | 0.2156 | 22.031 | 945.4 | 0.2166 | 26.051 | 799.9 | 0.2215 |
| 22 | 15.613 | 837.9 | 0.2093 | 18.864 | 888.8 | 0.2102 | 22.353 | 764.0 | 0.2152 |
| 23 | 12.533 | 772.7 | 0.2046 | 15.170 | 815.8 | 0.2053 | 17.964 | 719.6 | 0.2102 |
| 24 | 5.680 | 649.9 | 0.2011 | 6.864 | 666.5 | 0.2017 | 8.126 | 630.1 | 0.2068 |
| 25 | 3.339 | 611.4 | 0.1997 | 4.009 | 620.1 | 0.2003 | 4.711 | 599.9 | 0.2051 |

Table 4-53. LS1 Burnup and TH Feedback Parameters Assembly C30 (Continued)

| Node | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (EOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 | 495.2 Cy 7 |
| 1 | 8.229 | 633.2 | 0.7396 | 9.395 | 634.8 | 0.7396 |
| 2 | 26.846 | 799.2 | 0.7396 | 30.076 | 785.9 | 0.7396 |
| 3 | 35.031 | 826.2 | 0.7257 | 38.842 | 792.1 | 0.7276 |
| 4 | 39.024 | 868.8 | 0.6822 | 43.089 | 810.1 | 0.6862 |
| 5 | 40.607 | 900.9 | 0.6282 | 44.857 | 823.5 | 0.6351 |
| 6 | 41.146 | 924.3 | 0.5732 | 45.587 | 837.5 | 0.5827 |
| 7 | 41.354 | 941.4 | 0.5226 | 46.005 | 853.3 | 0.5344 |
| 8 | 41.576 | 955.5 | 0.4781 | 46.448 | 870.2 | 0.4916 |
| 9 | 42.509 | 973.3 | 0.4395 | 47.643 | 890.7 | 0.4537 |
| 10 | 42.495 | 983.2 | 0.4057 | 47.849 | 908.4 | 0.4204 |
| 11 | 42.260 | 993.1 | 0.3767 | 47.815 | 924.8 | 0.3916 |
| 12 | 41.921 | 1007.2 | 0.3517 | 47.658 | 940.0 | 0.3664 |
| 13 | 41.495 | 1022.2 | 0.3299 | 47.408 | 954.9 | 0.3443 |
| 14 | 40.933 | 1030.3 | 0.3107 | 47.027 | 970.5 | 0.3247 |
| 15 | 40.171 | 1025.9 | 0.2936 | 46.454 | 987.1 | 0.3073 |
| 16 | 39.175 | 1009.8 | 0.2784 | 45.634 | 1002.8 | 0.2919 |
| 17 | 37.896 | 984.1 | 0.2649 | 44.490 | 1015.0 | 0.2780 |
| 18 | 36.324 | 953.1 | 0.2529 | 42.981 | 1020.8 | 0.2657 |
| 19 | 34.458 | 920.3 | 0.2424 | 41.071 | 1016.7 | 0.2546 |
| 20 | 32.201 | 888.2 | 0.2332 | 38.623 | 999.4 | 0.2449 |
| 21 | 28.817 | 848.8 | 0.2255 | 34.781 | 959.2 | 0.2365 |
| 22 | 24.756 | 804.6 | 0.2192 | 30.052 | 903.7 | 0.2297 |
| 23 | 19.891 | 750.3 | 0.2141 | 24.185 | 826.7 | 0.2240 |
| 24 | 9.008 | 643.3 | 0.2106 | 11.017 | 675.3 | 0.2204 |
| 25 | 5.204 | 607.1 | 0.2088 | 6.321 | 623.7 | 0.2181 |

Table 4-54. LS1 Burnup and TH Feedback Parameters Assembly D1

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.481 | 652.5 | 0.7396 | 2.432 | 657.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.443 | 962.9 | 0.7396 | 8.915 | 984.8 | 0.7396 |
| 3 | 0.000 | | 0.7223 | 7.352 | 1061.2 | 0.7223 | 12.044 | 1091.2 | 0.7210 |
| 4 | 0.000 | Data | 0.6712 | 8.257 | 1148.3 | 0.6712 | 13.393 | 1162.6 | 0.6689 |
| 5 | 0.000 | Not | 0.6073 | 8.421 | 1164.9 | 0.6073 | 13.547 | 1160.9 | 0.6047 |
| 6 | 0.000 | Required | 0.5445 | 8.286 | 1151.2 | 0.5445 | 13.265 | 1136.8 | 0.5425 |
| 7 | 0.000 | | 0.4905 | 8.105 | 1133.2 | 0.4905 | 12.936 | 1113.0 | 0.4892 |
| 8 | 0.000 | | 0.4461 | 7.997 | 1122.5 | 0.4461 | 12.723 | 1096.5 | 0.4456 |
| 9 | 0.000 | | 0.4089 | 8.174 | 1140.0 | 0.4089 | 12.927 | 1100.7 | 0.4091 |
| 10 | 0.000 | | 0.3771 | 8.051 | 1127.8 | 0.3771 | 12.739 | 1090.6 | 0.3779 |
| 11 | 0.000 | | 0.3502 | 7.860 | 1109.2 | 0.3502 | 12.476 | 1079.5 | 0.3513 |
| 12 | 0.000 | | 0.3274 | 7.640 | 1088.1 | 0.3274 | 12.188 | 1069.1 | 0.3287 |
| 13 | 0.000 | | 0.3079 | 7.408 | 1066.4 | 0.3079 | 11.889 | 1058.9 | 0.3092 |
| 14 | 0.000 | | 0.2910 | 7.166 | 1044.2 | 0.2910 | 11.582 | 1049.2 | 0.2923 |
| 15 | 0.000 | | 0.2763 | 6.909 | 1021.1 | 0.2763 | 11.256 | 1038.9 | 0.2774 |
| 16 | 0.000 | | 0.2635 | 6.625 | 996.3 | 0.2635 | 10.890 | 1026.9 | 0.2642 |
| 17 | 0.000 | | 0.2522 | 6.280 | 967.0 | 0.2522 | 10.428 | 1010.0 | 0.2527 |
| 18 | 0.000 | | 0.2425 | 5.726 | 921.9 | 0.2425 | 9.654 | 979.1 | 0.2426 |
| 19 | 0.000 | | 0.2342 | 5.362 | 893.5 | 0.2342 | 9.104 | 953.7 | 0.2338 |
| 20 | 0.000 | | 0.2268 | 5.008 | 866.8 | 0.2268 | 8.532 | 924.8 | 0.2261 |
| 21 | 0.000 | | 0.2204 | 4.624 | 838.8 | 0.2204 | 7.868 | 889.2 | 0.2193 |
| 22 | 0.000 | | 0.2149 | 3.944 | 791.5 | 0.2149 | 6.714 | 832.0 | 0.2136 |
| 23 | 0.000 | | 0.2105 | 3.156 | 740.0 | 0.2105 | 5.354 | 768.2 | 0.2091 |
| 24 | 0.000 | | 0.2078 | 1.236 | 627.9 | 0.2078 | 2.130 | 640.2 | 0.2062 |
| 25 | 0.000 | | 0.2067 | 0.725 | 600.6 | 0.2067 | 1.232 | 606.1 | 0.2050 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.586 | 632.3 | 0.7396 | 4.397 | 647.2 | 0.7396 | 6.011 | 665.7 | 0.7396 |
| 2 | 13.226 | 868.5 | 0.7396 | 16.114 | 921.5 | 0.7396 | 21.312 | 959.6 | 0.7396 |
| 3 | 17.809 | 931.9 | 0.7251 | 21.561 | 983.8 | 0.7246 | 27.780 | 983.1 | 0.7239 |
| 4 | 19.987 | 1002.2 | 0.6783 | 24.213 | 1056.2 | 0.6778 | 30.648 | 1002.4 | 0.6774 |
| 5 | 20.625 | 1045.8 | 0.6197 | 25.093 | 1095.4 | 0.6194 | 31.489 | 998.8 | 0.6205 |
| 6 | 20.637 | 1073.3 | 0.5605 | 25.216 | 1113.8 | 0.5604 | 31.554 | 993.6 | 0.5633 |
| 7 | 20.502 | 1091.9 | 0.5074 | 25.134 | 1122.7 | 0.5069 | 31.461 | 992.7 | 0.5118 |
| 8 | 20.451 | 1107.6 | 0.4620 | 25.129 | 1130.6 | 0.4613 | 31.506 | 997.1 | 0.4676 |
| 9 | 20.861 | 1128.0 | 0.4232 | 25.643 | 1148.4 | 0.4222 | 32.167 | 1010.4 | 0.4293 |
| 10 | 20.698 | 1130.5 | 0.3900 | 25.522 | 1155.7 | 0.3888 | 32.172 | 1022.0 | 0.3965 |
| 11 | 20.358 | 1122.8 | 0.3617 | 25.221 | 1162.5 | 0.3602 | 32.030 | 1036.8 | 0.3682 |
| 12 | 19.915 | 1107.5 | 0.3375 | 24.828 | 1171.3 | 0.3357 | 31.818 | 1053.9 | 0.3438 |
| 13 | 19.409 | 1087.4 | 0.3168 | 24.360 | 1178.1 | 0.3146 | 31.554 | 1073.5 | 0.3225 |
| 14 | 18.849 | 1063.4 | 0.2988 | 23.790 | 1176.3 | 0.2962 | 31.207 | 1095.4 | 0.3038 |
| 15 | 18.223 | 1035.6 | 0.2832 | 23.069 | 1159.6 | 0.2801 | 30.723 | 1119.2 | 0.2872 |
| 16 | 17.495 | 1003.1 | 0.2694 | 22.172 | 1130.4 | 0.2661 | 30.051 | 1142.3 | 0.2726 |
| 17 | 16.597 | 965.5 | 0.2574 | 21.042 | 1091.6 | 0.2538 | 29.098 | 1160.8 | 0.2596 |
| 18 | 15.319 | 923.8 | 0.2471 | 19.492 | 1047.8 | 0.2432 | 27.651 | 1171.8 | 0.2481 |
| 19 | 14.274 | 884.8 | 0.2381 | 18.146 | 1001.6 | 0.2341 | 26.240 | 1164.9 | 0.2378 |
| 20 | 13.226 | 848.9 | 0.2303 | 16.779 | 955.1 | 0.2262 | 24.609 | 1137.3 | 0.2287 |
| 21 | 12.029 | 810.6 | 0.2235 | 15.180 | 899.7 | 0.2194 | 22.395 | 1075.5 | 0.2207 |
| 22 | 10.204 | 764.8 | 0.2177 | 12.891 | 840.0 | 0.2136 | 19.247 | 995.3 | 0.2138 |
| 23 | 8.065 | 714.9 | 0.2131 | 10.194 | 773.6 | 0.2091 | 15.365 | 894.9 | 0.2084 |
| 24 | 3.239 | 621.9 | 0.2104 | 4.120 | 643.5 | 0.2062 | 6.351 | 689.1 | 0.2050 |
| 25 | 1.853 | 595.7 | 0.2091 | 2.353 | 607.9 | 0.2049 | 3.618 | 632.2 | 0.2034 |

Table 4-54. LS1 Burnup and TH Feedback Parameters Assembly D1 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.035 | 639.5 | 0.7396 |
| 2 | 21.389 | 846.7 | 0.7396 |
| 3 | 27.874 | 867.9 | 0.724 |
| 4 | 30.751 | 904.5 | 0.6775 |
| 5 | 31.598 | 929.7 | 0.6206 |
| 6 | 31.667 | 947.0 | 0.5636 |
| 7 | 31.579 | 969.1 | 0.5122 |
| 8 | 31.625 | 973.6 | 0.4679 |
| 9 | 32.290 | 991.8 | 0.4296 |
| 10 | 32.296 | 996.4 | 0.3968 |
| 11 | 32.153 | 991.8 | 0.3685 |
| 12 | 31.941 | 991.8 | 0.3440 |
| 13 | 31.675 | 982.6 | 0.3227 |
| 14 | 31.327 | 978.1 | 0.3040 |
| 15 | 30.839 | 960.2 | 0.2874 |
| 16 | 30.163 | 942.7 | 0.2728 |
| 17 | 29.205 | 921.2 | 0.2597 |
| 18 | 27.753 | 900.3 | 0.2483 |
| 19 | 26.336 | 875.9 | 0.2380 |
| 20 | 24.698 | 848.3 | 0.2288 |
| 21 | 22.475 | 814.1 | 0.2208 |
| 22 | 19.317 | 777.8 | 0.2140 |
| 23 | 15.421 | 729.8 | 0.2085 |
| 24 | 6.375 | 630.4 | 0.2051 |
| 25 | 3.630 | 596.2 | 0.2035 |

Table 4-55. LS1 Burnup and TH Feedback Parameters Assembly D2

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.714 | 668.0 | 0.7396 | 2.887 | 681.9 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.201 | 1035.5 | 0.7396 | 10.443 | 1110.8 | 0.7396 |
| 3 | 0.000 | | 0.7120 | 8.224 | 1145.0 | 0.7120 | 13.743 | 1228.0 | 0.7078 |
| 4 | 0.000 | Data | 0.6502 | 9.025 | 1228.0 | 0.6502 | 14.886 | 1289.3 | 0.6424 |
| 5 | 0.000 | Not | 0.5790 | 9.015 | 1226.9 | 0.5790 | 14.777 | 1271.3 | 0.5695 |
| 6 | 0.000 | Required | 0.5144 | 8.747 | 1198.5 | 0.5144 | 14.317 | 1236.9 | 0.5051 |
| 7 | 0.000 | | 0.4621 | 8.496 | 1172.5 | 0.4621 | 13.896 | 1207.3 | 0.4534 |
| 8 | 0.000 | | 0.4200 | 8.358 | 1158.5 | 0.4200 | 13.643 | 1187.6 | 0.4121 |
| 9 | 0.000 | | 0.3846 | 8.543 | 1177.4 | 0.3846 | 13.847 | 1190.8 | 0.3775 |
| 10 | 0.000 | | 0.3544 | 8.428 | 1165.6 | 0.3544 | 13.666 | 1179.6 | 0.3480 |
| 11 | 0.000 | | 0.3289 | 8.244 | 1147.0 | 0.3289 | 13.415 | 1168.4 | 0.3230 |
| 12 | 0.000 | | 0.3073 | 8.031 | 1125.9 | 0.3073 | 13.135 | 1157.3 | 0.3017 |
| 13 | 0.000 | | 0.2887 | 7.807 | 1104.1 | 0.2887 | 12.844 | 1146.2 | 0.2833 |
| 14 | 0.000 | | 0.2727 | 7.576 | 1082.1 | 0.2727 | 12.545 | 1135.2 | 0.2673 |
| 15 | 0.000 | | 0.2586 | 7.334 | 1059.5 | 0.2586 | 12.229 | 1123.2 | 0.2531 |
| 16 | 0.000 | | 0.2462 | 7.069 | 1035.4 | 0.2462 | 11.879 | 1109.7 | 0.2407 |
| 17 | 0.000 | | 0.2354 | 6.749 | 1007.1 | 0.2354 | 11.439 | 1090.9 | 0.2297 |
| 18 | 0.000 | | 0.2259 | 6.216 | 961.7 | 0.2259 | 10.682 | 1056.7 | 0.2199 |
| 19 | 0.000 | | 0.2178 | 5.881 | 934.3 | 0.2178 | 10.141 | 1026.2 | 0.2114 |
| 20 | 0.000 | | 0.2105 | 5.548 | 907.9 | 0.2105 | 9.552 | 989.6 | 0.2041 |
| 21 | 0.000 | | 0.2041 | 5.162 | 878.3 | 0.2041 | 8.827 | 943.4 | 0.1977 |
| 22 | 0.000 | | 0.1987 | 4.433 | 825.2 | 0.1987 | 7.553 | 873.8 | 0.1922 |
| 23 | 0.000 | | 0.1944 | 3.565 | 766.3 | 0.1944 | 6.038 | 798.2 | 0.1879 |
| 24 | 0.000 | | 0.1915 | 1.409 | 637.3 | 0.1915 | 2.428 | 651.6 | 0.1849 |
| 25 | 0.000 | | 0.1904 | 0.831 | 606.2 | 0.1904 | 1.416 | 612.9 | 0.1839 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.161 | 640.2 | 0.7396 | 4.716 | 618.7 | 0.7396 | 5.385 | 602.3 | 0.7396 |
| 2 | 15.063 | 895.3 | 0.7396 | 16.967 | 781.1 | 0.7396 | 19.135 | 705.3 | 0.7396 |
| 3 | 19.667 | 945.0 | 0.7146 | 22.077 | 806.3 | 0.7179 | 24.712 | 714.3 | 0.7216 |
| 4 | 21.451 | 999.6 | 0.6578 | 24.158 | 842.4 | 0.6653 | 27.027 | 729.3 | 0.6737 |
| 5 | 21.679 | 1029.7 | 0.5931 | 24.613 | 871.2 | 0.6055 | 27.679 | 742.2 | 0.6197 |
| 6 | 21.402 | 1046.4 | 0.5333 | 24.522 | 895.5 | 0.5498 | 27.811 | 757.0 | 0.5697 |
| 7 | 21.058 | 1053.6 | 0.4828 | 24.323 | 915.0 | 0.5015 | 27.857 | 773.6 | 0.5265 |
| 8 | 20.819 | 1054.9 | 0.4404 | 24.190 | 929.5 | 0.4601 | 27.980 | 791.4 | 0.4892 |
| 9 | 21.069 | 1059.2 | 0.4039 | 24.552 | 945.2 | 0.4234 | 28.637 | 812.4 | 0.4554 |
| 10 | 20.818 | 1052.7 | 0.3730 | 24.354 | 952.7 | 0.3918 | 28.683 | 830.2 | 0.4261 |
| 11 | 20.459 | 1042.7 | 0.3466 | 24.030 | 957.6 | 0.3648 | 28.587 | 847.2 | 0.4004 |
| 12 | 20.037 | 1029.7 | 0.3240 | 23.635 | 961.5 | 0.3414 | 28.427 | 865.2 | 0.3779 |
| 13 | 19.577 | 1014.5 | 0.3044 | 23.196 | 964.5 | 0.3212 | 28.273 | 887.4 | 0.3585 |
| 14 | 19.082 | 997.2 | 0.2873 | 22.712 | 966.1 | 0.3034 | 28.009 | 905.0 | 0.3404 |
| 15 | 18.543 | 977.8 | 0.2723 | 22.167 | 965.2 | 0.2878 | 27.645 | 919.8 | 0.3239 |
| 16 | 17.936 | 956.1 | 0.2590 | 21.529 | 960.8 | 0.2739 | 27.170 | 933.3 | 0.3092 |
| 17 | 17.205 | 932.0 | 0.2474 | 20.737 | 952.1 | 0.2616 | 26.514 | 944.8 | 0.2961 |
| 18 | 16.133 | 906.7 | 0.2376 | 19.578 | 939.8 | 0.2514 | 25.454 | 953.2 | 0.2852 |
| 19 | 15.277 | 882.2 | 0.2294 | 18.583 | 920.6 | 0.2424 | 24.450 | 952.5 | 0.2749 |
| 20 | 14.283 | 851.7 | 0.2215 | 17.402 | 895.4 | 0.2339 | 23.130 | 940.7 | 0.2652 |
| 21 | 13.014 | 812.4 | 0.2143 | 15.833 | 856.5 | 0.2261 | 21.170 | 908.3 | 0.2560 |
| 22 | 11.050 | 765.3 | 0.2084 | 13.487 | 809.5 | 0.2199 | 18.241 | 862.2 | 0.2490 |
| 23 | 8.710 | 712.5 | 0.2034 | 10.629 | 750.1 | 0.2146 | 14.468 | 794.8 | 0.2428 |
| 24 | 3.478 | 618.7 | 0.2001 | 4.239 | 632.1 | 0.2112 | 5.794 | 648.9 | 0.2389 |
| 25 | 1.979 | 592.6 | 0.1980 | 2.382 | 599.1 | 0.2085 | 3.192 | 606.8 | 0.2347 |

Table 4-55. LS1 Burnup and TH Feedback Parameters Assembly D2 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.397 | 598.9 | 0.7396 |
| 2 | 19.178 | 708.2 | 0.7396 |
| 3 | 24.770 | 736.4 | 0.7217 |
| 4 | 27.093 | 763.8 | 0.6739 |
| 5 | 27.753 | 792.1 | 0.6199 |
| 6 | 27.891 | 814.1 | 0.5701 |
| 7 | 27.943 | 836.7 | 0.5271 |
| 8 | 28.070 | 852.2 | 0.4897 |
| 9 | 28.732 | 871.9 | 0.4560 |
| 10 | 28.779 | 875.9 | 0.4267 |
| 11 | 28.684 | 879.9 | 0.4009 |
| 12 | 28.524 | 879.9 | 0.3784 |
| 13 | 28.370 | 879.9 | 0.3589 |
| 14 | 28.105 | 875.9 | 0.3407 |
| 15 | 27.740 | 871.9 | 0.3243 |
| 16 | 27.263 | 863.9 | 0.3095 |
| 17 | 26.607 | 863.9 | 0.2964 |
| 18 | 25.553 | 888.0 | 0.2855 |
| 19 | 24.581 | 1029.2 | 0.2754 |
| 20 | 23.266 | 1053.4 | 0.2657 |
| 21 | 21.295 | 1001.0 | 0.2564 |
| 22 | 18.349 | 925.5 | 0.2493 |
| 23 | 14.555 | 840.6 | 0.2431 |
| 24 | 5.830 | 666.1 | 0.2392 |
| 25 | 3.211 | 616.0 | 0.2350 |

Table 4-56. LS1 Burnup and TH Feedback Parameters Assembly D3

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.142 | 630.4 | 0.7396 | 2.019 | 649.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.254 | 858.3 | 0.7396 | 7.449 | 942.8 | 0.7396 |
| 3 | 0.000 | | 0.7340 | 5.875 | 933.8 | 0.7340 | 10.248 | 1042.8 | 0.7300 |
| 4 | 0.000 | Data | 0.6974 | 6.849 | 1015.8 | 0.6974 | 11.703 | 1116.7 | 0.6890 |
| 5 | 0.000 | Not | 0.6476 | 7.313 | 1057.6 | 0.6476 | 12.167 | 1116.7 | 0.6358 |
| 6 | 0.000 | Required | 0.5922 | 7.510 | 1075.9 | 0.5922 | 12.207 | 1092.0 | 0.5796 |
| 7 | 0.000 | | 0.5383 | 7.571 | 1081.6 | 0.5383 | 12.110 | 1067.7 | 0.5271 |
| 8 | 0.000 | | 0.4904 | 7.611 | 1085.4 | 0.4904 | 12.047 | 1052.2 | 0.4813 |
| 9 | 0.000 | | 0.4488 | 7.889 | 1112.0 | 0.4488 | 12.361 | 1057.6 | 0.4419 |
| 10 | 0.000 | | 0.4131 | 7.848 | 1108.0 | 0.4131 | 12.257 | 1048.1 | 0.4080 |
| 11 | 0.000 | | 0.3826 | 7.713 | 1095.1 | 0.3826 | 12.058 | 1038.6 | 0.3791 |
| 12 | 0.000 | | 0.3567 | 7.521 | 1076.9 | 0.3567 | 11.809 | 1030.3 | 0.3542 |
| 13 | 0.000 | | 0.3346 | 7.303 | 1056.7 | 0.3346 | 11.539 | 1022.7 | 0.3327 |
| 14 | 0.000 | | 0.3155 | 7.068 | 1035.3 | 0.3155 | 11.254 | 1015.5 | 0.3141 |
| 15 | 0.000 | | 0.2990 | 6.814 | 1012.8 | 0.2990 | 10.944 | 1007.5 | 0.2979 |
| 16 | 0.000 | | 0.2846 | 6.532 | 988.3 | 0.2846 | 10.593 | 997.7 | 0.2835 |
| 17 | 0.000 | | 0.2720 | 6.192 | 959.7 | 0.2720 | 10.148 | 982.9 | 0.2709 |
| 18 | 0.000 | | 0.2612 | 5.646 | 915.6 | 0.2612 | 9.393 | 954.4 | 0.2600 |
| 19 | 0.000 | | 0.2521 | 5.293 | 888.3 | 0.2521 | 8.870 | 931.8 | 0.2505 |
| 20 | 0.000 | | 0.2440 | 4.951 | 862.6 | 0.2440 | 8.330 | 906.2 | 0.2422 |
| 21 | 0.000 | | 0.2370 | 4.581 | 835.7 | 0.2370 | 7.704 | 874.2 | 0.2349 |
| 22 | 0.000 | | 0.2309 | 3.912 | 789.3 | 0.2309 | 6.590 | 821.4 | 0.2286 |
| 23 | 0.000 | | 0.2261 | 3.136 | 738.8 | 0.2261 | 5.274 | 761.8 | 0.2237 |
| 24 | 0.000 | | 0.2230 | 1.233 | 627.7 | 0.2230 | 2.107 | 638.4 | 0.2205 |
| 25 | 0.000 | | 0.2218 | 0.721 | 600.4 | 0.2218 | 1.215 | 605.0 | 0.2192 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.149 | 630.8 | 0.7396 | 3.952 | 646.3 | 0.7396 | 5.533 | 663.4 | 0.7396 |
| 2 | 11.679 | 861.6 | 0.7396 | 14.602 | 926.9 | 0.7396 | 19.824 | 961.9 | 0.7396 |
| 3 | 16.025 | 932.9 | 0.7313 | 19.859 | 996.0 | 0.7295 | 26.150 | 989.4 | 0.7275 |
| 4 | 18.334 | 1005.4 | 0.6919 | 22.653 | 1071.1 | 0.6884 | 29.158 | 1008.7 | 0.6855 |
| 5 | 19.256 | 1046.8 | 0.6401 | 23.796 | 1107.3 | 0.6353 | 30.226 | 1001.9 | 0.6329 |
| 6 | 19.560 | 1071.5 | 0.5844 | 24.180 | 1120.7 | 0.5789 | 30.522 | 994.0 | 0.5780 |
| 7 | 19.641 | 1088.5 | 0.5314 | 24.288 | 1125.3 | 0.5257 | 30.605 | 991.8 | 0.5267 |
| 8 | 19.739 | 1104.1 | 0.4846 | 24.417 | 1130.6 | 0.4788 | 30.779 | 995.8 | 0.4815 |
| 9 | 20.266 | 1125.1 | 0.4440 | 25.039 | 1146.9 | 0.4383 | 31.550 | 1009.3 | 0.4422 |
| 10 | 20.188 | 1127.7 | 0.4090 | 24.997 | 1153.1 | 0.4035 | 31.632 | 1020.6 | 0.4082 |
| 11 | 19.913 | 1120.1 | 0.3791 | 24.754 | 1158.7 | 0.3737 | 31.543 | 1034.9 | 0.3789 |
| 12 | 19.516 | 1105.6 | 0.3535 | 24.403 | 1166.8 | 0.3481 | 31.368 | 1051.5 | 0.3535 |
| 13 | 19.054 | 1086.9 | 0.3315 | 23.979 | 1173.5 | 0.3259 | 31.138 | 1070.1 | 0.3312 |
| 14 | 18.542 | 1065.4 | 0.3125 | 23.459 | 1172.0 | 0.3067 | 30.829 | 1090.8 | 0.3118 |
| 15 | 17.962 | 1040.3 | 0.2960 | 22.791 | 1156.6 | 0.2900 | 30.383 | 1112.9 | 0.2947 |
| 16 | 17.275 | 1010.0 | 0.2815 | 21.942 | 1128.7 | 0.2754 | 29.747 | 1134.7 | 0.2795 |
| 17 | 16.403 | 972.8 | 0.2690 | 20.845 | 1091.1 | 0.2626 | 28.823 | 1152.6 | 0.2661 |
| 18 | 15.136 | 930.1 | 0.2581 | 19.312 | 1048.3 | 0.2516 | 27.396 | 1163.8 | 0.2541 |
| 19 | 14.114 | 890.5 | 0.2487 | 17.998 | 1003.4 | 0.2422 | 26.027 | 1158.0 | 0.2436 |
| 20 | 13.095 | 854.2 | 0.2406 | 16.675 | 958.9 | 0.2341 | 24.458 | 1132.4 | 0.2342 |
| 21 | 11.935 | 815.5 | 0.2335 | 15.131 | 905.7 | 0.2271 | 22.319 | 1072.9 | 0.2260 |
| 22 | 10.142 | 768.9 | 0.2275 | 12.887 | 847.2 | 0.2211 | 19.230 | 994.1 | 0.2190 |
| 23 | 8.041 | 718.4 | 0.2228 | 10.233 | 780.8 | 0.2163 | 15.399 | 894.5 | 0.2133 |
| 24 | 3.244 | 623.4 | 0.2197 | 4.158 | 646.7 | 0.2131 | 6.389 | 689.1 | 0.2096 |
| 25 | 1.856 | 596.7 | 0.2185 | 2.380 | 610.1 | 0.2119 | 3.650 | 632.5 | 0.2081 |

Table 4-56. LS1 Burnup and TH Feedback Parameters Assembly D3 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.545 | 598.9 | 0.7396 |
| 2 | 19.865 | 700.7 | 0.7396 |
| 3 | 26.202 | 716.6 | 0.7276 |
| 4 | 29.217 | 739.8 | 0.6857 |
| 5 | 30.292 | 763.8 | 0.6331 |
| 6 | 30.592 | 777.8 | 0.5784 |
| 7 | 30.680 | 795.8 | 0.5271 |
| 8 | 30.859 | 814.1 | 0.4820 |
| 9 | 31.634 | 829.1 | 0.4428 |
| 10 | 31.719 | 840.6 | 0.4088 |
| 11 | 31.634 | 856.1 | 0.3794 |
| 12 | 31.472 | 908.6 | 0.3540 |
| 13 | 31.281 | 1088.2 | 0.3320 |
| 14 | 30.983 | 1145.4 | 0.3125 |
| 15 | 30.535 | 1134.8 | 0.2953 |
| 16 | 29.895 | 1113.8 | 0.2801 |
| 17 | 28.964 | 1078.1 | 0.2665 |
| 18 | 27.530 | 1043.6 | 0.2545 |
| 19 | 26.153 | 1005.6 | 0.2439 |
| 20 | 24.575 | 964.7 | 0.2345 |
| 21 | 22.424 | 912.8 | 0.2263 |
| 22 | 19.321 | 856.1 | 0.2192 |
| 23 | 15.472 | 788.5 | 0.2136 |
| 24 | 6.420 | 651.0 | 0.2099 |
| 25 | 3.667 | 610.3 | 0.2084 |

Table 4-57. LS1 Burnup and TH Feedback Parameters Assembly D4

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.592 | 659.9 | 0.7396 | 2.827 | 688.8 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.768 | 993.4 | 0.7396 | 10.197 | 1143.6 | 0.7396 |
| 3 | 0.000 | | 0.7170 | 7.670 | 1091.0 | 0.7170 | 13.403 | 1266.0 | 0.7078 |
| 4 | 0.000 | Data | 0.6611 | 8.467 | 1169.6 | 0.6611 | 14.514 | 1323.9 | 0.6439 |
| 5 | 0.000 | Not | 0.5950 | 8.517 | 1174.7 | 0.5950 | 14.432 | 1299.3 | 0.5733 |
| 6 | 0.000 | Required | 0.5328 | 8.313 | 1153.9 | 0.5328 | 14.022 | 1261.7 | 0.5104 |
| 7 | 0.000 | | 0.4804 | 8.106 | 1133.3 | 0.4804 | 13.644 | 1231.3 | 0.4591 |
| 8 | 0.000 | | 0.4375 | 8.000 | 1122.8 | 0.4375 | 13.427 | 1211.9 | 0.4177 |
| 9 | 0.000 | | 0.4012 | 8.196 | 1142.2 | 0.4012 | 13.655 | 1217.5 | 0.3829 |
| 10 | 0.000 | | 0.3702 | 8.102 | 1132.9 | 0.3702 | 13.501 | 1207.1 | 0.3532 |
| 11 | 0.000 | | 0.3438 | 7.942 | 1117.2 | 0.3438 | 13.278 | 1196.3 | 0.3278 |
| 12 | 0.000 | | 0.3214 | 7.755 | 1099.1 | 0.3214 | 13.030 | 1185.9 | 0.3061 |
| 13 | 0.000 | | 0.3021 | 7.557 | 1080.3 | 0.3021 | 12.771 | 1175.6 | 0.2873 |
| 14 | 0.000 | | 0.2853 | 7.352 | 1061.2 | 0.2853 | 12.503 | 1165.1 | 0.2709 |
| 15 | 0.000 | | 0.2706 | 7.141 | 1041.9 | 0.2706 | 12.221 | 1153.3 | 0.2564 |
| 16 | 0.000 | | 0.2576 | 6.920 | 1022.1 | 0.2576 | 11.913 | 1139.1 | 0.2436 |
| 17 | 0.000 | | 0.2462 | 6.676 | 1000.7 | 0.2462 | 11.542 | 1118.6 | 0.2323 |
| 18 | 0.000 | | 0.2362 | 6.258 | 965.2 | 0.2362 | 10.890 | 1081.9 | 0.2223 |
| 19 | 0.000 | | 0.2274 | 6.053 | 948.3 | 0.2274 | 10.469 | 1049.2 | 0.2137 |
| 20 | 0.000 | | 0.2195 | 5.825 | 929.8 | 0.2195 | 9.976 | 1010.5 | 0.2061 |
| 21 | 0.000 | | 0.2123 | 5.492 | 903.6 | 0.2123 | 9.288 | 961.0 | 0.1995 |
| 22 | 0.000 | | 0.2062 | 4.750 | 847.9 | 0.2062 | 7.987 | 888.3 | 0.1937 |
| 23 | 0.000 | | 0.2012 | 3.825 | 783.5 | 0.2012 | 6.397 | 809.3 | 0.1892 |
| 24 | 0.000 | | 0.1979 | 1.512 | 643.0 | 0.1979 | 2.578 | 655.9 | 0.1858 |
| 25 | 0.000 | | 0.1967 | 0.887 | 609.2 | 0.1967 | 1.501 | 615.4 | 0.1847 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.928 | 628.9 | 0.7396 | 4.431 | 613.1 | 0.7396 | 5.158 | 606.1 | 0.7396 |
| 2 | 14.209 | 843.3 | 0.7396 | 15.957 | 760.7 | 0.7396 | 18.341 | 721.2 | 0.7396 |
| 3 | 18.581 | 885.4 | 0.7163 | 20.808 | 784.9 | 0.7198 | 23.708 | 731.3 | 0.7236 |
| 4 | 20.307 | 934.2 | 0.6626 | 22.815 | 818.1 | 0.6703 | 25.951 | 746.8 | 0.6790 |
| 5 | 20.593 | 964.8 | 0.6020 | 23.299 | 842.3 | 0.6145 | 26.603 | 758.0 | 0.6287 |
| 6 | 20.426 | 985.6 | 0.5456 | 23.283 | 861.3 | 0.5619 | 26.765 | 770.1 | 0.5815 |
| 7 | 20.206 | 999.4 | 0.4965 | 23.175 | 875.7 | 0.5155 | 26.850 | 783.4 | 0.5394 |
| 8 | 20.108 | 1009.9 | 0.4544 | 23.156 | 886.0 | 0.4744 | 27.031 | 797.4 | 0.5020 |
| 9 | 20.508 | 1025.3 | 0.4174 | 23.639 | 897.0 | 0.4375 | 27.756 | 814.7 | 0.4674 |
| 10 | 20.417 | 1031.0 | 0.3857 | 23.577 | 900.9 | 0.4054 | 27.885 | 828.7 | 0.4369 |
| 11 | 20.208 | 1032.2 | 0.3585 | 23.385 | 903.1 | 0.3777 | 27.878 | 842.4 | 0.4101 |
| 12 | 19.921 | 1028.7 | 0.3350 | 23.110 | 904.8 | 0.3536 | 27.786 | 856.3 | 0.3864 |
| 13 | 19.576 | 1020.9 | 0.3146 | 22.779 | 906.6 | 0.3326 | 27.634 | 870.0 | 0.3653 |
| 14 | 19.181 | 1009.6 | 0.2966 | 22.398 | 908.5 | 0.3142 | 27.431 | 884.0 | 0.3466 |
| 15 | 18.729 | 994.6 | 0.2807 | 21.956 | 909.9 | 0.2979 | 27.163 | 897.8 | 0.3299 |
| 16 | 18.208 | 976.2 | 0.2666 | 21.431 | 909.3 | 0.2834 | 26.802 | 911.1 | 0.3149 |
| 17 | 17.577 | 954.2 | 0.2542 | 20.776 | 906.1 | 0.2706 | 26.288 | 922.6 | 0.3015 |
| 18 | 16.621 | 929.2 | 0.2435 | 19.778 | 900.5 | 0.2596 | 25.399 | 931.7 | 0.2901 |
| 19 | 15.848 | 901.1 | 0.2339 | 18.928 | 890.2 | 0.2495 | 24.560 | 932.6 | 0.2791 |
| 20 | 14.948 | 869.7 | 0.2253 | 17.912 | 875.1 | 0.2405 | 23.431 | 923.2 | 0.2689 |
| 21 | 13.719 | 829.8 | 0.2176 | 16.458 | 846.4 | 0.2323 | 21.620 | 894.2 | 0.2594 |
| 22 | 11.729 | 781.7 | 0.2113 | 14.149 | 807.5 | 0.2259 | 18.773 | 852.3 | 0.2522 |
| 23 | 9.282 | 725.8 | 0.2061 | 11.221 | 752.3 | 0.2204 | 14.983 | 789.4 | 0.2460 |
| 24 | 3.716 | 623.5 | 0.2026 | 4.491 | 633.4 | 0.2166 | 6.035 | 648.2 | 0.2421 |
| 25 | 2.109 | 595.0 | 0.2004 | 2.517 | 599.6 | 0.2136 | 3.326 | 606.8 | 0.2379 |

Table 4-57. LS1 Burnup and TH Feedback Parameters Assembly D4 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.170 | 598.9 | 0.7396 |
| 2 | 18.384 | 708.2 | 0.7396 |
| 3 | 23.765 | 733.1 | 0.7238 |
| 4 | 26.018 | 767.3 | 0.6792 |
| 5 | 26.680 | 803.0 | 0.629 |
| 6 | 26.849 | 829.1 | 0.5818 |
| 7 | 26.941 | 856.1 | 0.5399 |
| 8 | 27.128 | 879.9 | 0.5025 |
| 9 | 27.858 | 900.3 | 0.4679 |
| 10 | 27.988 | 904.5 | 0.4373 |
| 11 | 27.982 | 908.6 | 0.4105 |
| 12 | 27.889 | 904.5 | 0.3868 |
| 13 | 27.739 | 912.8 | 0.3657 |
| 14 | 27.547 | 960.2 | 0.3470 |
| 15 | 27.320 | 1161.6 | 0.3303 |
| 16 | 26.969 | 1217.1 | 0.3153 |
| 17 | 26.450 | 1189.0 | 0.3018 |
| 18 | 25.554 | 1150.8 | 0.2903 |
| 19 | 24.705 | 1098.4 | 0.2792 |
| 20 | 23.566 | 1048.5 | 0.2690 |
| 21 | 21.741 | 982.6 | 0.2595 |
| 22 | 18.879 | 917.0 | 0.2523 |
| 23 | 15.069 | 836.7 | 0.2460 |
| 24 | 6.073 | 672.2 | 0.2421 |
| 25 | 3.347 | 621.7 | 0.2379 |

Table 4-58. LS1 Burnup and TH Feedback Parameters Assembly D5

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.139 | 630.3 | 0.7396 | 2.015 | 649.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.243 | 857.4 | 0.7396 | 7.434 | 942.2 | 0.7396 |
| 3 | 0.000 | | 0.7341 | 5.862 | 932.8 | 0.7341 | 10.228 | 1041.7 | 0.7301 |
| 4 | 0.000 | Data | 0.6977 | 6.835 | 1014.6 | 0.6977 | 11.683 | 1115.7 | 0.6893 |
| 5 | 0.000 | Not | 0.6480 | 7.300 | 1056.4 | 0.6480 | 12.149 | 1115.9 | 0.6361 |
| 6 | 0.000 | Required | 0.5927 | 7.498 | 1074.8 | 0.5927 | 12.191 | 1091.4 | 0.5800 |
| 7 | 0.000 | | 0.5389 | 7.561 | 1080.7 | 0.5389 | 12.096 | 1067.1 | 0.5276 |
| 8 | 0.000 | | 0.4909 | 7.602 | 1084.5 | 0.4909 | 12.033 | 1051.4 | 0.4818 |
| 9 | 0.000 | | 0.4493 | 7.881 | 1111.2 | 0.4493 | 12.348 | 1056.8 | 0.4423 |
| 10 | 0.000 | | 0.4135 | 7.840 | 1107.3 | 0.4135 | 12.245 | 1047.5 | 0.4084 |
| 11 | 0.000 | | 0.3831 | 7.705 | 1094.3 | 0.3831 | 12.047 | 1038.2 | 0.3795 |
| 12 | 0.000 | | 0.3571 | 7.514 | 1076.3 | 0.3571 | 11.798 | 1029.7 | 0.3545 |
| 13 | 0.000 | | 0.3350 | 7.297 | 1056.1 | 0.3350 | 11.529 | 1022.1 | 0.3331 |
| 14 | 0.000 | | 0.3159 | 7.062 | 1034.8 | 0.3159 | 11.244 | 1014.9 | 0.3144 |
| 15 | 0.000 | | 0.2993 | 6.808 | 1012.2 | 0.2993 | 10.935 | 1007.0 | 0.2981 |
| 16 | 0.000 | | 0.2849 | 6.526 | 987.8 | 0.2849 | 10.584 | 997.2 | 0.2838 |
| 17 | 0.000 | | 0.2723 | 6.187 | 959.3 | 0.2723 | 10.139 | 982.4 | 0.2712 |
| 18 | 0.000 | | 0.2616 | 5.640 | 915.2 | 0.2616 | 9.384 | 954.0 | 0.2602 |
| 19 | 0.000 | | 0.2524 | 5.288 | 887.9 | 0.2524 | 8.861 | 931.2 | 0.2507 |
| 20 | 0.000 | | 0.2443 | 4.947 | 862.3 | 0.2443 | 8.322 | 905.7 | 0.2424 |
| 21 | 0.000 | | 0.2372 | 4.576 | 835.4 | 0.2372 | 7.697 | 873.9 | 0.2351 |
| 22 | 0.000 | | 0.2312 | 3.908 | 789.0 | 0.2312 | 6.584 | 821.2 | 0.2289 |
| 23 | 0.000 | | 0.2264 | 3.133 | 738.6 | 0.2264 | 5.269 | 761.6 | 0.2239 |
| 24 | 0.000 | | 0.2233 | 1.232 | 627.7 | 0.2233 | 2.105 | 638.3 | 0.2207 |
| 25 | 0.000 | | 0.2221 | 0.720 | 600.4 | 0.2221 | 1.214 | 605.0 | 0.2195 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.142 | 630.6 | 0.7396 | 3.944 | 646.2 | 0.7396 | 5.524 | 663.3 | 0.7396 |
| 2 | 11.654 | 860.7 | 0.7396 | 14.572 | 926.1 | 0.7396 | 19.792 | 961.7 | 0.7396 |
| 3 | 15.995 | 932.1 | 0.7314 | 19.822 | 994.9 | 0.7295 | 26.113 | 989.4 | 0.7276 |
| 4 | 18.303 | 1004.5 | 0.6921 | 22.616 | 1070.1 | 0.6886 | 29.120 | 1008.6 | 0.6857 |
| 5 | 19.227 | 1045.8 | 0.6405 | 23.761 | 1106.3 | 0.6357 | 30.191 | 1001.9 | 0.6332 |
| 6 | 19.533 | 1070.5 | 0.5849 | 24.148 | 1119.9 | 0.5794 | 30.489 | 993.9 | 0.5784 |
| 7 | 19.616 | 1087.4 | 0.5319 | 24.259 | 1124.6 | 0.5261 | 30.573 | 991.5 | 0.5271 |
| 8 | 19.716 | 1103.2 | 0.4850 | 24.390 | 1129.9 | 0.4792 | 30.748 | 995.4 | 0.4818 |
| 9 | 20.244 | 1124.2 | 0.4444 | 25.013 | 1146.2 | 0.4388 | 31.519 | 1008.8 | 0.4426 |
| 10 | 20.168 | 1126.9 | 0.4094 | 24.972 | 1152.2 | 0.4039 | 31.602 | 1020.1 | 0.4086 |
| 11 | 19.893 | 1119.3 | 0.3795 | 24.731 | 1158.2 | 0.3741 | 31.514 | 1034.3 | 0.3792 |
| 12 | 19.497 | 1104.8 | 0.3538 | 24.381 | 1166.2 | 0.3484 | 31.340 | 1050.9 | 0.3537 |
| 13 | 19.036 | 1086.2 | 0.3319 | 23.958 | 1172.9 | 0.3263 | 31.111 | 1069.5 | 0.3316 |
| 14 | 18.525 | 1064.7 | 0.3128 | 23.438 | 1171.3 | 0.3070 | 30.802 | 1090.2 | 0.3121 |
| 15 | 17.946 | 1039.6 | 0.2963 | 22.771 | 1155.9 | 0.2903 | 30.357 | 1112.3 | 0.2950 |
| 16 | 17.259 | 1009.3 | 0.2819 | 21.923 | 1128.2 | 0.2756 | 29.721 | 1133.9 | 0.2798 |
| 17 | 16.388 | 972.3 | 0.2692 | 20.826 | 1090.4 | 0.2629 | 28.798 | 1152.0 | 0.2664 |
| 18 | 15.122 | 929.7 | 0.2583 | 19.294 | 1047.7 | 0.2519 | 27.371 | 1163.1 | 0.2543 |
| 19 | 14.101 | 890.2 | 0.2490 | 17.981 | 1002.8 | 0.2425 | 26.003 | 1157.3 | 0.2438 |
| 20 | 13.083 | 853.9 | 0.2408 | 16.659 | 958.3 | 0.2343 | 24.435 | 1131.7 | 0.2344 |
| 21 | 11.924 | 815.2 | 0.2338 | 15.116 | 905.2 | 0.2273 | 22.298 | 1072.3 | 0.2262 |
| 22 | 10.132 | 768.6 | 0.2278 | 12.875 | 846.9 | 0.2213 | 19.212 | 993.6 | 0.2192 |
| 23 | 8.033 | 718.2 | 0.2230 | 10.223 | 780.6 | 0.2165 | 15.384 | 894.1 | 0.2136 |
| 24 | 3.240 | 623.3 | 0.2200 | 4.154 | 646.7 | 0.2133 | 6.383 | 689.0 | 0.2098 |
| 25 | 1.854 | 596.7 | 0.2187 | 2.377 | 610.0 | 0.2121 | 3.646 | 632.5 | 0.2083 |

Table 4-58. LS1 Burnup and TH Feedback Parameters Assembly D5 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.536 | 598.9 | 0.7396 |
| 2 | 19.833 | 700.7 | 0.7396 |
| 3 | 26.165 | 716.6 | 0.7276 |
| 4 | 29.179 | 739.8 | 0.6858 |
| 5 | 30.256 | 760.3 | 0.6334 |
| 6 | 30.559 | 777.8 | 0.5787 |
| 7 | 30.648 | 795.8 | 0.5275 |
| 8 | 30.827 | 810.4 | 0.4823 |
| 9 | 31.604 | 832.9 | 0.4431 |
| 10 | 31.690 | 844.4 | 0.4092 |
| 11 | 31.606 | 860.0 | 0.3798 |
| 12 | 31.444 | 908.6 | 0.3543 |
| 13 | 31.253 | 1083.1 | 0.3323 |
| 14 | 30.956 | 1145.4 | 0.3128 |
| 15 | 30.509 | 1134.8 | 0.2955 |
| 16 | 29.869 | 1113.8 | 0.2803 |
| 17 | 28.938 | 1073.1 | 0.2668 |
| 18 | 27.504 | 1038.8 | 0.2548 |
| 19 | 26.129 | 1005.6 | 0.2441 |
| 20 | 24.552 | 964.7 | 0.2347 |
| 21 | 22.403 | 912.8 | 0.2265 |
| 22 | 19.302 | 852.2 | 0.2195 |
| 23 | 15.456 | 784.9 | 0.2138 |
| 24 | 6.414 | 651.0 | 0.2101 |
| 25 | 3.663 | 610.3 | 0.2085 |

Table 4-59. LS1 Burnup and TH Feedback Parameters Assembly D6

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.424 | 648.8 | 0.7396 | 2.424 | 662.8 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.268 | 946.8 | 0.7396 | 8.936 | 1015.5 | 0.7396 |
| 3 | 0.000 | | 0.7231 | 7.208 | 1048.0 | 0.7231 | 12.184 | 1136.3 | 0.7195 |
| 4 | 0.000 | Data | 0.6722 | 8.228 | 1145.4 | 0.6722 | 13.661 | 1213.0 | 0.6654 |
| 5 | 0.000 | Not | 0.6076 | 8.524 | 1175.4 | 0.6076 | 13.910 | 1204.8 | 0.5992 |
| 6 | 0.000 | Required | 0.5434 | 8.497 | 1172.6 | 0.5434 | 13.693 | 1172.6 | 0.5355 |
| 7 | 0.000 | | 0.4880 | 8.390 | 1161.7 | 0.4880 | 13.407 | 1143.0 | 0.4815 |
| 8 | 0.000 | | 0.4423 | 8.327 | 1155.4 | 0.4423 | 13.216 | 1122.3 | 0.4375 |
| 9 | 0.000 | | 0.4040 | 8.544 | 1177.5 | 0.4040 | 13.439 | 1123.2 | 0.4006 |
| 10 | 0.000 | | 0.3713 | 8.435 | 1166.3 | 0.3713 | 13.253 | 1111.0 | 0.3691 |
| 11 | 0.000 | | 0.3438 | 8.243 | 1146.9 | 0.3438 | 12.986 | 1099.2 | 0.3425 |
| 12 | 0.000 | | 0.3206 | 8.013 | 1124.1 | 0.3206 | 12.686 | 1088.2 | 0.3199 |
| 13 | 0.000 | | 0.3008 | 7.763 | 1099.9 | 0.3008 | 12.371 | 1078.2 | 0.3005 |
| 14 | 0.000 | | 0.2838 | 7.499 | 1074.9 | 0.2838 | 12.045 | 1068.8 | 0.2836 |
| 15 | 0.000 | | 0.2690 | 7.219 | 1049.0 | 0.2690 | 11.697 | 1058.5 | 0.2688 |
| 16 | 0.000 | | 0.2562 | 6.908 | 1021.1 | 0.2562 | 11.304 | 1046.2 | 0.2559 |
| 17 | 0.000 | | 0.2449 | 6.530 | 988.2 | 0.2449 | 10.808 | 1028.8 | 0.2444 |
| 18 | 0.000 | | 0.2353 | 5.937 | 938.8 | 0.2353 | 9.989 | 996.4 | 0.2345 |
| 19 | 0.000 | | 0.2271 | 5.543 | 907.6 | 0.2271 | 9.400 | 969.3 | 0.2259 |
| 20 | 0.000 | | 0.2199 | 5.167 | 878.7 | 0.2199 | 8.794 | 938.3 | 0.2183 |
| 21 | 0.000 | | 0.2136 | 4.763 | 848.8 | 0.2136 | 8.095 | 900.2 | 0.2117 |
| 22 | 0.000 | | 0.2082 | 4.055 | 799.0 | 0.2082 | 6.895 | 840.2 | 0.2062 |
| 23 | 0.000 | | 0.2040 | 3.242 | 745.5 | 0.2040 | 5.493 | 773.9 | 0.2017 |
| 24 | 0.000 | | 0.2012 | 1.276 | 630.0 | 0.2012 | 2.197 | 642.7 | 0.1989 |
| 25 | 0.000 | | 0.2001 | 0.751 | 602.0 | 0.2001 | 1.276 | 607.7 | 0.1978 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.656 | 637.4 | 0.7396 | 4.234 | 621.3 | 0.7396 | 5.177 | 620.2 | 0.7396 |
| 2 | 13.521 | 892.2 | 0.7396 | 15.583 | 802.2 | 0.7396 | 18.711 | 778.5 | 0.7396 |
| 3 | 18.180 | 951.0 | 0.7234 | 20.845 | 837.2 | 0.7257 | 24.657 | 792.9 | 0.7288 |
| 4 | 20.336 | 1009.3 | 0.6743 | 23.343 | 880.7 | 0.6801 | 27.427 | 812.3 | 0.6873 |
| 5 | 20.911 | 1038.7 | 0.6135 | 24.126 | 908.3 | 0.6234 | 28.373 | 824.2 | 0.6355 |
| 6 | 20.860 | 1054.0 | 0.5534 | 24.206 | 926.1 | 0.5665 | 28.619 | 836.4 | 0.5834 |
| 7 | 20.671 | 1063.1 | 0.5003 | 24.092 | 936.5 | 0.5153 | 28.684 | 849.9 | 0.5361 |
| 8 | 20.578 | 1072.3 | 0.4556 | 24.037 | 941.8 | 0.4710 | 28.809 | 863.6 | 0.4943 |
| 9 | 21.014 | 1092.7 | 0.4174 | 24.524 | 949.0 | 0.4324 | 29.513 | 880.5 | 0.4570 |
| 10 | 20.948 | 1104.4 | 0.3846 | 24.453 | 948.3 | 0.3992 | 29.599 | 892.9 | 0.4244 |
| 11 | 20.734 | 1109.6 | 0.3567 | 24.222 | 945.9 | 0.3708 | 29.522 | 905.3 | 0.3961 |
| 12 | 20.400 | 1106.2 | 0.3327 | 23.876 | 944.2 | 0.3464 | 29.334 | 918.2 | 0.3716 |
| 13 | 19.992 | 1097.2 | 0.3121 | 23.463 | 943.5 | 0.3254 | 29.083 | 931.6 | 0.3502 |
| 14 | 19.517 | 1082.8 | 0.2941 | 22.991 | 943.9 | 0.3071 | 28.777 | 945.6 | 0.3315 |
| 15 | 18.966 | 1063.6 | 0.2784 | 22.440 | 943.9 | 0.2911 | 28.391 | 959.7 | 0.3149 |
| 16 | 18.316 | 1039.7 | 0.2646 | 21.776 | 941.9 | 0.2770 | 27.884 | 973.3 | 0.3002 |
| 17 | 17.503 | 1011.1 | 0.2525 | 20.924 | 936.5 | 0.2647 | 27.167 | 985.2 | 0.2872 |
| 18 | 16.309 | 978.3 | 0.2421 | 19.672 | 928.4 | 0.2541 | 26.017 | 994.3 | 0.2761 |
| 19 | 15.299 | 942.9 | 0.2329 | 18.575 | 916.5 | 0.2446 | 24.909 | 993.3 | 0.2657 |
| 20 | 14.223 | 905.0 | 0.2249 | 17.390 | 901.8 | 0.2363 | 23.568 | 979.4 | 0.2562 |
| 21 | 12.914 | 858.2 | 0.2178 | 15.864 | 873.3 | 0.2289 | 21.604 | 941.7 | 0.2474 |
| 22 | 10.927 | 801.5 | 0.2120 | 13.545 | 831.4 | 0.2229 | 18.646 | 889.3 | 0.2406 |
| 23 | 8.589 | 739.2 | 0.2074 | 10.685 | 769.9 | 0.2179 | 14.823 | 816.2 | 0.2349 |
| 24 | 3.428 | 628.6 | 0.2045 | 4.271 | 639.9 | 0.2148 | 5.986 | 658.2 | 0.2316 |
| 25 | 1.947 | 598.3 | 0.2031 | 2.399 | 603.5 | 0.2129 | 3.321 | 613.0 | 0.2289 |

Table 4-59. LS1 Burnup and TH Feedback Parameters Assembly D6 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.195 | 619.0 | 0.7396 |
| 2 | 18.771 | 774.8 | 0.7396 |
| 3 | 24.731 | 792.1 | 0.7289 |
| 4 | 27.509 | 821.6 | 0.6874 |
| 5 | 28.460 | 840.6 | 0.6358 |
| 6 | 28.711 | 860.0 | 0.5837 |
| 7 | 28.781 | 879.9 | 0.5364 |
| 8 | 28.910 | 896.2 | 0.4947 |
| 9 | 29.617 | 908.6 | 0.4574 |
| 10 | 29.705 | 917.0 | 0.4248 |
| 11 | 29.628 | 917.0 | 0.3965 |
| 12 | 29.439 | 912.8 | 0.3720 |
| 13 | 29.188 | 912.8 | 0.3505 |
| 14 | 28.879 | 900.3 | 0.3317 |
| 15 | 28.491 | 892.1 | 0.3151 |
| 16 | 27.981 | 879.9 | 0.3005 |
| 17 | 27.260 | 863.9 | 0.2874 |
| 18 | 26.106 | 848.3 | 0.2763 |
| 19 | 24.994 | 832.9 | 0.2659 |
| 20 | 23.647 | 810.4 | 0.2564 |
| 21 | 21.676 | 784.9 | 0.2477 |
| 22 | 18.709 | 753.4 | 0.2408 |
| 23 | 14.873 | 710.1 | 0.2351 |
| 24 | 6.006 | 618.9 | 0.2318 |
| 25 | 3.332 | 593.4 | 0.2291 |

Table 4-60. LS1 Burnup and TH Feedback Parameters Assembly D7

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.763 | 671.3 | 0.7396 | 2.924 | 680.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.413 | 1056.7 | 0.7396 | 10.624 | 1105.5 | 0.7396 |
| 3 | 0.000 | | 0.7073 | 8.584 | 1181.6 | 0.7073 | 14.065 | 1221.3 | 0.7051 |
| 4 | 0.000 | Data | 0.6395 | 9.502 | 1280.2 | 0.6395 | 15.344 | 1285.9 | 0.6361 |
| 5 | 0.000 | Not | 0.5633 | 9.573 | 1288.1 | 0.5633 | 15.356 | 1275.1 | 0.5599 |
| 6 | 0.000 | Required | 0.4960 | 9.368 | 1265.3 | 0.4960 | 15.000 | 1247.9 | 0.4934 |
| 7 | 0.000 | | 0.4428 | 9.149 | 1241.4 | 0.4428 | 14.641 | 1223.2 | 0.4409 |
| 8 | 0.000 | | 0.4005 | 9.008 | 1226.2 | 0.4005 | 14.395 | 1205.0 | 0.3991 |
| 9 | 0.000 | | 0.3651 | 9.178 | 1244.5 | 0.3651 | 14.571 | 1206.0 | 0.3644 |
| 10 | 0.000 | | 0.3353 | 9.031 | 1228.6 | 0.3353 | 14.357 | 1194.6 | 0.3350 |
| 11 | 0.000 | | 0.3104 | 8.827 | 1206.9 | 0.3104 | 14.089 | 1183.7 | 0.3103 |
| 12 | 0.000 | | 0.2892 | 8.595 | 1182.7 | 0.2892 | 13.798 | 1173.7 | 0.2893 |
| 13 | 0.000 | | 0.2711 | 8.348 | 1157.5 | 0.2711 | 13.495 | 1164.4 | 0.2712 |
| 14 | 0.000 | | 0.2555 | 8.086 | 1131.3 | 0.2555 | 13.179 | 1155.4 | 0.2555 |
| 15 | 0.000 | | 0.2420 | 7.804 | 1103.8 | 0.2420 | 12.839 | 1145.9 | 0.2417 |
| 16 | 0.000 | | 0.2301 | 7.488 | 1073.8 | 0.2301 | 12.456 | 1135.0 | 0.2296 |
| 17 | 0.000 | | 0.2197 | 7.106 | 1038.8 | 0.2197 | 11.975 | 1119.1 | 0.2188 |
| 18 | 0.000 | | 0.2108 | 6.501 | 985.7 | 0.2108 | 11.167 | 1087.2 | 0.2093 |
| 19 | 0.000 | | 0.2031 | 6.093 | 951.6 | 0.2031 | 10.559 | 1056.7 | 0.2012 |
| 20 | 0.000 | | 0.1964 | 5.692 | 919.3 | 0.1964 | 9.895 | 1017.9 | 0.1940 |
| 21 | 0.000 | | 0.1906 | 5.249 | 884.9 | 0.1906 | 9.092 | 967.4 | 0.1878 |
| 22 | 0.000 | | 0.1856 | 4.479 | 828.5 | 0.1856 | 7.750 | 892.5 | 0.1825 |
| 23 | 0.000 | | 0.1816 | 3.594 | 768.2 | 0.1816 | 6.190 | 812.1 | 0.1783 |
| 24 | 0.000 | | 0.1790 | 1.428 | 638.4 | 0.1790 | 2.503 | 656.7 | 0.1756 |
| 25 | 0.000 | | 0.1780 | 0.850 | 607.2 | 0.1780 | 1.470 | 615.9 | 0.1745 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.410 | 654.3 | 0.7396 | 4.849 | 606.2 | 0.7396 | 5.756 | 617.8 | 0.7396 |
| 2 | 15.953 | 959.7 | 0.7396 | 17.472 | 731.5 | 0.7396 | 20.413 | 763.7 | 0.7396 |
| 3 | 20.903 | 1023.9 | 0.7106 | 22.869 | 755.3 | 0.7133 | 26.491 | 779.7 | 0.7177 |
| 4 | 22.903 | 1091.2 | 0.6483 | 25.140 | 786.0 | 0.6547 | 29.088 | 802.6 | 0.6649 |
| 5 | 23.222 | 1121.2 | 0.5777 | 25.654 | 808.9 | 0.5888 | 29.839 | 819.7 | 0.6052 |
| 6 | 22.966 | 1131.2 | 0.5136 | 25.549 | 827.2 | 0.5290 | 29.960 | 836.3 | 0.5509 |
| 7 | 22.611 | 1131.6 | 0.4610 | 25.314 | 841.9 | 0.4796 | 29.952 | 853.4 | 0.5054 |
| 8 | 22.335 | 1128.6 | 0.4183 | 25.146 | 855.5 | 0.4392 | 30.008 | 870.6 | 0.4674 |
| 9 | 22.537 | 1131.2 | 0.3824 | 25.474 | 871.6 | 0.4047 | 30.600 | 891.3 | 0.4338 |
| 10 | 22.218 | 1120.7 | 0.3521 | 25.244 | 883.2 | 0.3753 | 30.565 | 907.0 | 0.4049 |
| 11 | 21.791 | 1105.1 | 0.3264 | 24.926 | 897.5 | 0.3504 | 30.417 | 920.9 | 0.3796 |
| 12 | 21.303 | 1086.0 | 0.3045 | 24.735 | 938.0 | 0.3305 | 30.359 | 931.9 | 0.3585 |
| 13 | 20.771 | 1064.2 | 0.2855 | 25.067 | 1067.4 | 0.3174 | 30.749 | 936.8 | 0.3424 |
| 14 | 20.196 | 1040.2 | 0.2692 | 24.770 | 1113.0 | 0.2999 | 30.593 | 948.7 | 0.3241 |
| 15 | 19.563 | 1013.7 | 0.2548 | 24.110 | 1108.5 | 0.2824 | 30.112 | 964.1 | 0.3066 |
| 16 | 18.842 | 984.0 | 0.2422 | 23.255 | 1086.3 | 0.2668 | 29.434 | 979.5 | 0.2911 |
| 17 | 17.970 | 950.9 | 0.2311 | 22.188 | 1055.0 | 0.2533 | 28.512 | 992.4 | 0.2775 |
| 18 | 16.736 | 916.1 | 0.2215 | 20.730 | 1020.1 | 0.2420 | 27.142 | 1000.3 | 0.2661 |
| 19 | 15.678 | 880.9 | 0.2131 | 19.412 | 981.2 | 0.2318 | 25.784 | 996.7 | 0.2555 |
| 20 | 14.551 | 846.1 | 0.2057 | 18.001 | 940.5 | 0.2231 | 24.178 | 979.4 | 0.2460 |
| 21 | 13.193 | 806.4 | 0.1991 | 16.261 | 888.7 | 0.2153 | 21.966 | 938.7 | 0.2371 |
| 22 | 11.182 | 761.0 | 0.1938 | 13.803 | 831.8 | 0.2093 | 18.837 | 884.0 | 0.2304 |
| 23 | 8.832 | 710.7 | 0.1894 | 10.885 | 765.0 | 0.2041 | 14.940 | 810.2 | 0.2245 |
| 24 | 3.566 | 619.4 | 0.1866 | 4.388 | 637.9 | 0.2010 | 6.070 | 656.3 | 0.2212 |
| 25 | 2.057 | 593.9 | 0.1854 | 2.496 | 602.4 | 0.1986 | 3.399 | 612.0 | 0.2180 |

Table 4-60. LS1 Burnup and TH Feedback Parameters Assembly D7 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.771 | 608.9 | 0.7396 |
| 2 | 20.459 | 719.6 | 0.7396 |
| 3 | 26.548 | 733.1 | 0.7179 |
| 4 | 29.151 | 753.4 | 0.665 |
| 5 | 29.908 | 774.3 | 0.6055 |
| 6 | 30.035 | 795.8 | 0.5513 |
| 7 | 30.032 | 814.1 | 0.5060 |
| 8 | 30.091 | 825.3 | 0.4679 |
| 9 | 30.687 | 840.6 | 0.4345 |
| 10 | 30.655 | 852.2 | 0.4054 |
| 11 | 30.508 | 856.1 | 0.3801 |
| 12 | 30.449 | 852.2 | 0.3590 |
| 13 | 30.837 | 844.4 | 0.3429 |
| 14 | 30.680 | 840.6 | 0.3246 |
| 15 | 30.196 | 829.1 | 0.3071 |
| 16 | 29.516 | 821.6 | 0.2915 |
| 17 | 28.591 | 810.4 | 0.2780 |
| 18 | 27.220 | 806.7 | 0.2666 |
| 19 | 25.858 | 792.1 | 0.2559 |
| 20 | 24.249 | 781.4 | 0.2463 |
| 21 | 22.030 | 756.8 | 0.2375 |
| 22 | 18.894 | 733.1 | 0.2307 |
| 23 | 14.985 | 694.1 | 0.2249 |
| 24 | 6.088 | 613.1 | 0.2216 |
| 25 | 3.409 | 590.6 | 0.2183 |

Table 4-61. LS1 Burnup and TH Feedback Parameters Assembly D8

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.476 | 652.2 | 0.7396 | 2.424 | 657.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.425 | 961.2 | 0.7396 | 8.888 | 983.4 | 0.7396 |
| 3 | 0.000 | | 0.7225 | 7.329 | 1059.1 | 0.7225 | 12.012 | 1089.8 | 0.7212 |
| 4 | 0.000 | Data | 0.6717 | 8.235 | 1146.1 | 0.6717 | 13.362 | 1161.1 | 0.6694 |
| 5 | 0.000 | Not | 0.6080 | 8.401 | 1162.8 | 0.6080 | 13.520 | 1159.7 | 0.6054 |
| 6 | 0.000 | Required | 0.5453 | 8.269 | 1149.5 | 0.5453 | 13.241 | 1135.7 | 0.5432 |
| 7 | 0.000 | | 0.4913 | 8.090 | 1131.7 | 0.4913 | 12.914 | 1111.9 | 0.4899 |
| 8 | 0.000 | | 0.4469 | 7.984 | 1121.3 | 0.4469 | 12.703 | 1095.4 | 0.4463 |
| 9 | 0.000 | | 0.4096 | 8.162 | 1138.8 | 0.4096 | 12.909 | 1099.8 | 0.4097 |
| 10 | 0.000 | | 0.3778 | 8.040 | 1126.8 | 0.3778 | 12.722 | 1089.6 | 0.3784 |
| 11 | 0.000 | | 0.3509 | 7.850 | 1108.2 | 0.3509 | 12.460 | 1078.5 | 0.3518 |
| 12 | 0.000 | | 0.3280 | 7.631 | 1087.3 | 0.3280 | 12.173 | 1068.1 | 0.3292 |
| 13 | 0.000 | | 0.3085 | 7.399 | 1065.5 | 0.3085 | 11.876 | 1058.3 | 0.3097 |
| 14 | 0.000 | | 0.2915 | 7.158 | 1043.5 | 0.2915 | 11.569 | 1048.4 | 0.2927 |
| 15 | 0.000 | | 0.2768 | 6.901 | 1020.4 | 0.2768 | 11.244 | 1038.4 | 0.2778 |
| 16 | 0.000 | | 0.2640 | 6.617 | 995.6 | 0.2640 | 10.878 | 1026.3 | 0.2647 |
| 17 | 0.000 | | 0.2526 | 6.273 | 966.5 | 0.2526 | 10.417 | 1009.5 | 0.2531 |
| 18 | 0.000 | | 0.2429 | 5.720 | 921.5 | 0.2429 | 9.643 | 978.4 | 0.2430 |
| 19 | 0.000 | | 0.2346 | 5.356 | 893.1 | 0.2346 | 9.094 | 953.1 | 0.2342 |
| 20 | 0.000 | | 0.2273 | 5.002 | 866.4 | 0.2273 | 8.523 | 924.4 | 0.2265 |
| 21 | 0.000 | | 0.2208 | 4.619 | 838.4 | 0.2208 | 7.860 | 888.8 | 0.2197 |
| 22 | 0.000 | | 0.2153 | 3.941 | 791.3 | 0.2153 | 6.708 | 831.7 | 0.2139 |
| 23 | 0.000 | | 0.2110 | 3.153 | 739.8 | 0.2110 | 5.349 | 768.0 | 0.2094 |
| 24 | 0.000 | | 0.2081 | 1.234 | 627.8 | 0.2081 | 2.128 | 640.2 | 0.2065 |
| 25 | 0.000 | | 0.2071 | 0.724 | 600.6 | 0.2071 | 1.231 | 606.1 | 0.2053 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.574 | 632.1 | 0.7396 | 4.383 | 647.0 | 0.7396 | 5.997 | 665.7 | 0.7396 |
| 2 | 13.187 | 867.5 | 0.7396 | 16.068 | 920.4 | 0.7396 | 21.267 | 959.7 | 0.7396 |
| 3 | 17.764 | 930.9 | 0.7253 | 21.508 | 982.7 | 0.7248 | 27.729 | 983.2 | 0.7240 |
| 4 | 19.942 | 1000.9 | 0.6787 | 24.161 | 1055.1 | 0.6782 | 30.598 | 1002.5 | 0.6777 |
| 5 | 20.584 | 1044.5 | 0.6203 | 25.046 | 1094.4 | 0.6200 | 31.443 | 998.9 | 0.6209 |
| 6 | 20.600 | 1072.1 | 0.5612 | 25.175 | 1113.1 | 0.5609 | 31.510 | 993.4 | 0.5638 |
| 7 | 20.469 | 1090.8 | 0.5081 | 25.096 | 1121.9 | 0.5076 | 31.420 | 992.4 | 0.5124 |
| 8 | 20.420 | 1106.5 | 0.4627 | 25.095 | 1130.0 | 0.4619 | 31.467 | 996.7 | 0.4681 |
| 9 | 20.833 | 1127.0 | 0.4238 | 25.610 | 1147.6 | 0.4228 | 32.130 | 1010.1 | 0.4298 |
| 10 | 20.671 | 1129.5 | 0.3906 | 25.492 | 1155.2 | 0.3893 | 32.137 | 1021.5 | 0.3970 |
| 11 | 20.333 | 1121.9 | 0.3623 | 25.193 | 1162.0 | 0.3607 | 31.996 | 1036.2 | 0.3687 |
| 12 | 19.892 | 1106.7 | 0.3380 | 24.801 | 1170.6 | 0.3362 | 31.786 | 1053.4 | 0.3442 |
| 13 | 19.387 | 1086.6 | 0.3173 | 24.335 | 1177.5 | 0.3150 | 31.523 | 1072.9 | 0.3229 |
| 14 | 18.829 | 1062.7 | 0.2993 | 23.766 | 1175.6 | 0.2966 | 31.177 | 1094.8 | 0.3041 |
| 15 | 18.203 | 1034.9 | 0.2836 | 23.046 | 1159.0 | 0.2805 | 30.693 | 1118.5 | 0.2876 |
| 16 | 17.476 | 1002.5 | 0.2699 | 22.150 | 1129.9 | 0.2664 | 30.022 | 1141.6 | 0.2729 |
| 17 | 16.580 | 965.0 | 0.2578 | 21.020 | 1090.7 | 0.2542 | 29.069 | 1160.1 | 0.2599 |
| 18 | 15.302 | 923.3 | 0.2475 | 19.471 | 1047.2 | 0.2436 | 27.623 | 1171.0 | 0.2484 |
| 19 | 14.259 | 884.4 | 0.2385 | 18.127 | 1001.0 | 0.2344 | 26.213 | 1164.0 | 0.2381 |
| 20 | 13.212 | 848.6 | 0.2306 | 16.761 | 954.5 | 0.2266 | 24.584 | 1136.5 | 0.2289 |
| 21 | 12.016 | 810.2 | 0.2238 | 15.164 | 899.3 | 0.2197 | 22.373 | 1075.0 | 0.2209 |
| 22 | 10.193 | 764.5 | 0.2181 | 12.877 | 839.6 | 0.2139 | 19.228 | 994.8 | 0.2141 |
| 23 | 8.057 | 714.8 | 0.2134 | 10.183 | 773.3 | 0.2093 | 15.349 | 894.5 | 0.2086 |
| 24 | 3.235 | 621.8 | 0.2107 | 4.116 | 643.5 | 0.2065 | 6.344 | 689.0 | 0.2052 |
| 25 | 1.850 | 595.6 | 0.2094 | 2.350 | 607.9 | 0.2052 | 3.613 | 632.1 | 0.2036 |

Table 4-61. LS1 Burnup and TH Feedback Parameters Assembly D8 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.020 | 636.0 | 0.7396 |
| 2 | 21.339 | 825.0 | 0.7396 |
| 3 | 27.819 | 852.2 | 0.7241 |
| 4 | 30.700 | 900.3 | 0.6779 |
| 5 | 31.552 | 929.7 | 0.6211 |
| 6 | 31.625 | 955.8 | 0.5641 |
| 7 | 31.539 | 973.6 | 0.5126 |
| 8 | 31.589 | 987.2 | 0.4684 |
| 9 | 32.258 | 1015.0 | 0.4301 |
| 10 | 32.267 | 1024.4 | 0.3972 |
| 11 | 32.128 | 1034.0 | 0.3689 |
| 12 | 31.920 | 1043.6 | 0.3444 |
| 13 | 31.659 | 1053.3 | 0.3230 |
| 14 | 31.313 | 1053.3 | 0.3043 |
| 15 | 30.828 | 1048.5 | 0.2877 |
| 16 | 30.152 | 1024.4 | 0.2731 |
| 17 | 29.194 | 1001.0 | 0.2600 |
| 18 | 27.741 | 969.1 | 0.2485 |
| 19 | 26.325 | 942.7 | 0.2382 |
| 20 | 24.688 | 908.6 | 0.2290 |
| 21 | 22.467 | 867.9 | 0.2210 |
| 22 | 19.309 | 817.8 | 0.2142 |
| 23 | 15.415 | 763.8 | 0.2087 |
| 24 | 6.374 | 648.0 | 0.2053 |
| 25 | 3.629 | 607.5 | 0.2037 |

Table 4-62. LS1 Burnup and TH Feedback Parameters Assembly D9

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.686 | 666.2 | 0.7396 | 2.728 | 667.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.136 | 1029.1 | 0.7396 | 9.933 | 1036.3 | 0.7396 |
| 3 | 0.000 | | 0.7125 | 8.192 | 1141.8 | 0.7125 | 13.226 | 1145.8 | 0.7122 |
| 4 | 0.000 | Data | 0.6506 | 9.054 | 1231.1 | 0.6506 | 14.490 | 1213.5 | 0.6507 |
| 5 | 0.000 | Not | 0.5787 | 9.104 | 1236.5 | 0.5787 | 14.509 | 1208.1 | 0.5795 |
| 6 | 0.000 | Required | 0.5133 | 8.884 | 1213.0 | 0.5133 | 14.138 | 1182.3 | 0.5147 |
| 7 | 0.000 | | 0.4603 | 8.665 | 1190.0 | 0.4603 | 13.772 | 1157.8 | 0.4620 |
| 8 | 0.000 | | 0.4177 | 8.539 | 1177.0 | 0.4177 | 13.541 | 1140.5 | 0.4198 |
| 9 | 0.000 | | 0.3819 | 8.725 | 1196.2 | 0.3819 | 13.745 | 1143.5 | 0.3843 |
| 10 | 0.000 | | 0.3514 | 8.597 | 1182.9 | 0.3514 | 13.554 | 1133.2 | 0.3542 |
| 11 | 0.000 | | 0.3258 | 8.399 | 1162.6 | 0.3258 | 13.292 | 1122.9 | 0.3266 |
| 12 | 0.000 | | 0.3040 | 8.171 | 1139.7 | 0.3040 | 12.999 | 1112.6 | 0.3070 |
| 13 | 0.000 | | 0.2855 | 7.928 | 1115.8 | 0.2855 | 12.695 | 1102.9 | 0.2883 |
| 14 | 0.000 | | 0.2694 | 7.675 | 1091.5 | 0.2694 | 12.380 | 1093.2 | 0.2721 |
| 15 | 0.000 | | 0.2555 | 7.407 | 1066.3 | 0.2555 | 12.050 | 1083.6 | 0.2579 |
| 16 | 0.000 | | 0.2433 | 7.114 | 1039.5 | 0.2433 | 11.694 | 1073.9 | 0.2454 |
| 17 | 0.000 | | 0.2327 | 6.766 | 1008.6 | 0.2327 | 11.268 | 1062.1 | 0.2344 |
| 18 | 0.000 | | 0.2235 | 6.202 | 960.6 | 0.2235 | 10.530 | 1036.1 | 0.2247 |
| 19 | 0.000 | | 0.2155 | 5.828 | 930.1 | 0.2155 | 9.992 | 1012.3 | 0.2162 |
| 20 | 0.000 | | 0.2085 | 5.452 | 900.5 | 0.2085 | 9.384 | 979.6 | 0.2087 |
| 21 | 0.000 | | 0.2024 | 5.033 | 868.7 | 0.2024 | 8.643 | 936.1 | 0.2021 |
| 22 | 0.000 | | 0.1971 | 4.296 | 815.6 | 0.1971 | 7.373 | 868.6 | 0.1965 |
| 23 | 0.000 | | 0.1930 | 3.442 | 758.3 | 0.1930 | 5.880 | 794.3 | 0.1922 |
| 24 | 0.000 | | 0.1903 | 1.357 | 634.5 | 0.1903 | 2.356 | 649.7 | 0.1894 |
| 25 | 0.000 | | 0.1892 | 0.801 | 604.6 | 0.1892 | 1.371 | 611.6 | 0.1862 |
| | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| Node | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.041 | 642.8 | 0.7396 | 4.816 | 643.2 | 0.7396 | 6.290 | 656.0 | 0.7396 |
| 2 | 14.729 | 910.9 | 0.7396 | 17.461 | 897.8 | 0.7396 | 22.168 | 913.5 | 0.7396 |
| 3 | 19.580 | 981.3 | 0.7175 | 23.194 | 963.8 | 0.7193 | 28.868 | 936.1 | 0.7207 |
| 4 | 21.755 | 1063.2 | 0.6623 | 25.895 | 1042.7 | 0.6663 | 31.859 | 960.8 | 0.6700 |
| 5 | 22.279 | 1111.7 | 0.5965 | 26.694 | 1086.7 | 0.6023 | 32.756 | 969.3 | 0.6091 |
| 6 | 22.167 | 1137.5 | 0.5336 | 26.691 | 1104.6 | 0.5399 | 32.845 | 977.3 | 0.5497 |
| 7 | 21.933 | 1150.9 | 0.4797 | 26.483 | 1109.0 | 0.4857 | 32.761 | 988.3 | 0.4977 |
| 8 | 21.796 | 1160.6 | 0.4352 | 26.356 | 1110.6 | 0.4406 | 32.786 | 1001.9 | 0.4538 |
| 9 | 22.148 | 1175.9 | 0.3976 | 26.757 | 1118.9 | 0.4025 | 33.404 | 1021.7 | 0.4161 |
| 10 | 21.929 | 1173.0 | 0.3656 | 26.525 | 1116.7 | 0.3701 | 33.341 | 1037.4 | 0.3839 |
| 11 | 21.545 | 1160.4 | 0.3386 | 26.117 | 1112.6 | 0.3428 | 33.109 | 1054.1 | 0.3563 |
| 12 | 21.070 | 1141.8 | 0.3156 | 25.620 | 1109.0 | 0.3194 | 32.793 | 1071.5 | 0.3327 |
| 13 | 20.538 | 1119.0 | 0.2959 | 25.080 | 1107.6 | 0.2994 | 32.432 | 1089.0 | 0.3121 |
| 14 | 19.952 | 1092.4 | 0.2789 | 24.514 | 1111.0 | 0.2820 | 32.038 | 1106.1 | 0.2941 |
| 15 | 19.297 | 1061.5 | 0.2640 | 23.900 | 1117.8 | 0.2668 | 31.581 | 1122.0 | 0.2782 |
| 16 | 18.552 | 1025.7 | 0.2510 | 23.159 | 1118.5 | 0.2535 | 30.975 | 1135.8 | 0.2640 |
| 17 | 17.662 | 984.7 | 0.2396 | 22.173 | 1102.5 | 0.2417 | 30.091 | 1146.4 | 0.2515 |
| 18 | 16.415 | 941.8 | 0.2298 | 20.723 | 1069.3 | 0.2314 | 28.688 | 1151.3 | 0.2405 |
| 19 | 15.390 | 902.6 | 0.2213 | 19.420 | 1025.6 | 0.2224 | 27.280 | 1140.4 | 0.2306 |
| 20 | 14.327 | 867.5 | 0.2138 | 18.038 | 977.8 | 0.2146 | 25.609 | 1110.8 | 0.2217 |
| 21 | 13.054 | 828.3 | 0.2072 | 16.346 | 918.7 | 0.2078 | 23.294 | 1049.9 | 0.2138 |
| 22 | 11.104 | 780.9 | 0.2017 | 13.911 | 855.0 | 0.2022 | 20.007 | 972.2 | 0.2074 |
| 23 | 8.796 | 727.7 | 0.1973 | 11.017 | 784.2 | 0.1977 | 15.951 | 876.2 | 0.2022 |
| 24 | 3.560 | 627.1 | 0.1948 | 4.483 | 647.5 | 0.1950 | 6.613 | 683.0 | 0.1991 |
| 25 | 2.049 | 598.7 | 0.1935 | 2.570 | 609.8 | 0.1937 | 3.771 | 628.6 | 0.1975 |

Table 4-62. LS1 Burnup and TH Feedback Parameters Assembly D9 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.302 | 598.9 | 0.7396 |
| 2 | 22.206 | 689.6 | 0.7396 |
| 3 | 28.914 | 697.2 | 0.7208 |
| 4 | 31.909 | 710.1 | 0.6701 |
| 5 | 32.811 | 726.4 | 0.6093 |
| 6 | 32.906 | 746.6 | 0.550 |
| 7 | 32.828 | 767.2 | 0.4982 |
| 8 | 32.857 | 781.4 | 0.4544 |
| 9 | 33.480 | 799.4 | 0.4167 |
| 10 | 33.420 | 810.4 | 0.3845 |
| 11 | 33.191 | 821.6 | 0.3571 |
| 12 | 32.875 | 821.6 | 0.3334 |
| 13 | 32.514 | 821.6 | 0.3128 |
| 14 | 32.119 | 817.8 | 0.2948 |
| 15 | 31.661 | 814.1 | 0.2788 |
| 16 | 31.053 | 806.7 | 0.2646 |
| 17 | 30.167 | 799.4 | 0.2520 |
| 18 | 28.761 | 788.5 | 0.2410 |
| 19 | 27.351 | 781.4 | 0.2311 |
| 20 | 25.676 | 767.3 | 0.2222 |
| 21 | 23.356 | 750.0 | 0.2143 |
| 22 | 20.061 | 723.1 | 0.2079 |
| 23 | 15.995 | 690.9 | 0.2026 |
| 24 | 6.631 | 613.1 | 0.1996 |
| 25 | 3.780 | 587.9 | 0.1979 |

Table 4-63. LS1 Burnup and TH Feedback Parameters Assembly D10

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.372 | 645.4 | 0.7396 | 2.245 | 649.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.056 | 927.6 | 0.7396 | 8.242 | 941.5 | 0.7396 |
| 3 | 0.000 | | 0.7273 | 6.835 | 1014.6 | 0.7273 | 11.175 | 1037.9 | 0.7265 |
| 4 | 0.000 | Data | 0.6826 | 7.671 | 1091.1 | 0.6826 | 12.464 | 1107.0 | 0.6810 |
| 5 | 0.000 | Not | 0.6253 | 7.808 | 1104.2 | 0.6253 | 12.613 | 1108.9 | 0.6234 |
| 6 | 0.000 | Required | 0.5671 | 7.656 | 1089.7 | 0.5671 | 12.330 | 1088.4 | 0.5652 |
| 7 | 0.000 | | 0.5150 | 7.460 | 1071.2 | 0.5150 | 11.992 | 1066.6 | 0.5135 |
| 8 | 0.000 | | 0.4712 | 7.340 | 1060.1 | 0.4712 | 11.777 | 1052.3 | 0.4700 |
| 9 | 0.000 | | 0.4340 | 7.492 | 1074.2 | 0.4340 | 11.978 | 1059.7 | 0.4333 |
| 10 | 0.000 | | 0.4022 | 7.378 | 1063.6 | 0.4022 | 11.803 | 1050.5 | 0.4017 |
| 11 | 0.000 | | 0.3751 | 7.206 | 1047.8 | 0.3751 | 11.562 | 1040.3 | 0.3748 |
| 12 | 0.000 | | 0.3521 | 7.022 | 1031.2 | 0.3521 | 11.309 | 1030.1 | 0.3517 |
| 13 | 0.000 | | 0.3330 | 6.863 | 1017.1 | 0.3330 | 11.082 | 1020.2 | 0.3322 |
| 14 | 0.000 | | 0.3155 | 6.663 | 999.6 | 0.3155 | 10.816 | 1010.7 | 0.3146 |
| 15 | 0.000 | | 0.2998 | 6.437 | 980.3 | 0.2998 | 10.520 | 1000.8 | 0.2989 |
| 16 | 0.000 | | 0.2860 | 6.185 | 959.1 | 0.2860 | 10.184 | 988.9 | 0.2850 |
| 17 | 0.000 | | 0.2739 | 5.876 | 933.9 | 0.2739 | 9.758 | 972.7 | 0.2727 |
| 18 | 0.000 | | 0.2634 | 5.368 | 894.0 | 0.2634 | 9.029 | 942.9 | 0.2619 |
| 19 | 0.000 | | 0.2544 | 5.040 | 869.2 | 0.2544 | 8.527 | 920.0 | 0.2526 |
| 20 | 0.000 | | 0.2465 | 4.721 | 845.8 | 0.2465 | 8.009 | 894.7 | 0.2444 |
| 21 | 0.000 | | 0.2395 | 4.375 | 821.1 | 0.2395 | 7.413 | 863.8 | 0.2372 |
| 22 | 0.000 | | 0.2336 | 3.746 | 778.2 | 0.2336 | 6.350 | 813.0 | 0.2311 |
| 23 | 0.000 | | 0.2289 | 3.014 | 731.1 | 0.2289 | 5.095 | 755.8 | 0.2262 |
| 24 | 0.000 | | 0.2258 | 1.186 | 625.2 | 0.2258 | 2.036 | 636.3 | 0.2230 |
| 25 | 0.000 | | 0.2246 | 0.694 | 599.0 | 0.2246 | 1.175 | 603.9 | 0.2218 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.610 | 646.2 | 0.7396 | 4.400 | 644.8 | 0.7396 | 5.868 | 655.6 | 0.7396 |
| 2 | 13.318 | 936.2 | 0.7396 | 16.147 | 912.5 | 0.7396 | 20.907 | 918.4 | 0.7396 |
| 3 | 17.912 | 1014.9 | 0.7250 | 21.627 | 978.4 | 0.7253 | 27.360 | 941.1 | 0.7257 |
| 4 | 20.050 | 1093.8 | 0.6782 | 24.278 | 1056.5 | 0.6789 | 30.274 | 963.6 | 0.6807 |
| 5 | 20.622 | 1135.5 | 0.6190 | 25.118 | 1100.0 | 0.6200 | 31.168 | 968.2 | 0.6242 |
| 6 | 20.567 | 1158.7 | 0.5590 | 25.180 | 1119.5 | 0.5600 | 31.277 | 972.3 | 0.5666 |
| 7 | 20.378 | 1174.1 | 0.5055 | 25.033 | 1126.6 | 0.5059 | 31.216 | 979.9 | 0.5147 |
| 8 | 20.289 | 1187.3 | 0.4604 | 24.968 | 1130.7 | 0.4602 | 31.273 | 990.7 | 0.4701 |
| 9 | 20.676 | 1207.1 | 0.4222 | 25.422 | 1142.2 | 0.4216 | 31.926 | 1008.6 | 0.4320 |
| 10 | 20.503 | 1207.3 | 0.3894 | 25.255 | 1143.2 | 0.3885 | 31.917 | 1023.1 | 0.3991 |
| 11 | 20.173 | 1197.8 | 0.3613 | 24.921 | 1142.5 | 0.3602 | 31.755 | 1039.1 | 0.3708 |
| 12 | 19.773 | 1182.3 | 0.3375 | 24.513 | 1141.2 | 0.3361 | 31.528 | 1056.2 | 0.3464 |
| 13 | 19.346 | 1161.5 | 0.3174 | 24.071 | 1138.6 | 0.3156 | 31.274 | 1074.4 | 0.3253 |
| 14 | 18.827 | 1135.7 | 0.2995 | 23.518 | 1132.8 | 0.2974 | 30.924 | 1094.3 | 0.3067 |
| 15 | 18.202 | 1103.1 | 0.2839 | 22.823 | 1120.9 | 0.2815 | 30.439 | 1115.4 | 0.2901 |
| 16 | 17.462 | 1064.4 | 0.2703 | 21.960 | 1100.3 | 0.2677 | 29.776 | 1135.8 | 0.2755 |
| 17 | 16.553 | 1020.0 | 0.2586 | 20.865 | 1070.0 | 0.2557 | 28.844 | 1152.7 | 0.2625 |
| 18 | 15.269 | 971.5 | 0.2482 | 19.346 | 1032.9 | 0.2451 | 27.426 | 1163.4 | 0.2510 |
| 19 | 14.228 | 926.7 | 0.2396 | 18.027 | 990.8 | 0.2362 | 26.051 | 1157.5 | 0.2408 |
| 20 | 13.180 | 884.9 | 0.2320 | 16.674 | 946.7 | 0.2285 | 24.449 | 1131.6 | 0.2317 |
| 21 | 11.984 | 839.9 | 0.2256 | 15.084 | 892.9 | 0.2220 | 22.260 | 1071.8 | 0.2238 |
| 22 | 10.167 | 786.8 | 0.2201 | 12.808 | 834.3 | 0.2164 | 19.140 | 993.1 | 0.2171 |
| 23 | 8.056 | 730.6 | 0.2157 | 10.144 | 769.0 | 0.2121 | 15.294 | 893.2 | 0.2117 |
| 24 | 3.246 | 627.4 | 0.2127 | 4.113 | 642.2 | 0.2090 | 6.327 | 688.1 | 0.2081 |
| 25 | 1.859 | 599.0 | 0.2117 | 2.351 | 607.2 | 0.2079 | 3.602 | 631.4 | 0.2067 |

Table 4-63. LS1 Burnup and TH Feedback Parameters Assembly D10 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.889 | 629.2 | 0.7396 |
| 2 | 20.973 | 799.5 | 0.7396 |
| 3 | 27.441 | 817.8 | 0.7258 |
| 4 | 30.363 | 848.3 | 0.6808 |
| 5 | 31.263 | 871.9 | 0.6244 |
| 6 | 31.376 | 888.0 | 0.5669 |
| 7 | 31.320 | 908.6 | 0.5150 |
| 8 | 31.381 | 925.5 | 0.4705 |
| 9 | 32.037 | 938.3 | 0.4324 |
| 10 | 32.029 | 942.7 | 0.3995 |
| 11 | 31.867 | 942.7 | 0.3712 |
| 12 | 31.639 | 938.3 | 0.3468 |
| 13 | 31.383 | 929.7 | 0.3257 |
| 14 | 31.030 | 917.0 | 0.3070 |
| 15 | 30.543 | 908.6 | 0.2904 |
| 16 | 29.877 | 896.2 | 0.2758 |
| 17 | 28.940 | 875.9 | 0.2628 |
| 18 | 27.519 | 863.9 | 0.2512 |
| 19 | 26.139 | 844.4 | 0.2410 |
| 20 | 24.531 | 821.6 | 0.2319 |
| 21 | 22.335 | 795.7 | 0.2240 |
| 22 | 19.205 | 760.3 | 0.2173 |
| 23 | 15.346 | 716.6 | 0.2119 |
| 24 | 6.349 | 624.6 | 0.2084 |
| 25 | 3.614 | 596.2 | 0.2069 |

Table 4-64. LS1 Burnup and TH Feedback Parameters Assembly D11

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.662 | 664.5 | 0.7396 | 2.755 | 673.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.083 | 1023.9 | 0.7396 | 10.081 | 1069.4 | 0.7396 |
| 3 | 0.000 | | 0.7137 | 8.158 | 1138.4 | 0.7137 | 13.437 | 1186.6 | 0.7113 |
| 4 | 0.000 | Data | 0.6532 | 9.010 | 1226.4 | 0.6532 | 14.668 | 1252.6 | 0.6488 |
| 5 | 0.000 | Not | 0.5824 | 9.008 | 1226.2 | 0.5824 | 14.586 | 1238.3 | 0.5774 |
| 6 | 0.000 | Required | 0.5178 | 8.718 | 1195.5 | 0.5178 | 14.104 | 1204.8 | 0.5130 |
| 7 | 0.000 | | 0.4653 | 8.438 | 1166.6 | 0.4653 | 13.645 | 1174.4 | 0.4611 |
| 8 | 0.000 | | 0.4232 | 8.273 | 1149.9 | 0.4232 | 13.354 | 1153.5 | 0.4196 |
| 9 | 0.000 | | 0.3878 | 8.432 | 1166.0 | 0.3878 | 13.524 | 1155.3 | 0.3848 |
| 10 | 0.000 | | 0.3578 | 8.295 | 1152.1 | 0.3578 | 13.313 | 1143.1 | 0.3552 |
| 11 | 0.000 | | 0.3324 | 8.094 | 1132.1 | 0.3324 | 13.034 | 1130.5 | 0.3301 |
| 12 | 0.000 | | 0.3109 | 7.868 | 1110.0 | 0.3109 | 12.731 | 1118.1 | 0.3088 |
| 13 | 0.000 | | 0.2924 | 7.633 | 1087.5 | 0.2924 | 12.421 | 1106.2 | 0.2904 |
| 14 | 0.000 | | 0.2764 | 7.391 | 1064.8 | 0.2764 | 12.104 | 1094.5 | 0.2744 |
| 15 | 0.000 | | 0.2624 | 7.134 | 1041.3 | 0.2624 | 11.768 | 1082.2 | 0.2602 |
| 16 | 0.000 | | 0.2501 | 6.850 | 1015.9 | 0.2501 | 11.392 | 1068.1 | 0.2477 |
| 17 | 0.000 | | 0.2394 | 6.504 | 985.9 | 0.2394 | 10.919 | 1049.0 | 0.2368 |
| 18 | 0.000 | | 0.2300 | 5.945 | 939.5 | 0.2300 | 10.128 | 1015.0 | 0.2271 |
| 19 | 0.000 | | 0.2220 | 5.579 | 910.4 | 0.2220 | 9.559 | 986.3 | 0.2187 |
| 20 | 0.000 | | 0.2150 | 5.223 | 883.0 | 0.2150 | 8.962 | 953.3 | 0.2113 |
| 21 | 0.000 | | 0.2088 | 4.831 | 853.8 | 0.2088 | 8.259 | 912.4 | 0.2049 |
| 22 | 0.000 | | 0.2035 | 4.127 | 803.9 | 0.2035 | 7.044 | 849.3 | 0.1995 |
| 23 | 0.000 | | 0.1993 | 3.306 | 749.6 | 0.1993 | 5.617 | 780.4 | 0.1952 |
| 24 | 0.000 | | 0.1965 | 1.301 | 631.4 | 0.1965 | 2.246 | 644.8 | 0.1924 |
| 25 | 0.000 | | 0.1955 | 0.767 | 602.8 | 0.1955 | 1.307 | 609.0 | 0.1913 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.942 | 634.5 | 0.7396 | 4.395 | 607.7 | 0.7396 | 4.971 | 596.3 | 0.7396 |
| 2 | 14.439 | 872.5 | 0.7396 | 16.022 | 739.6 | 0.7396 | 17.933 | 686.7 | 0.7396 |
| 3 | 19.062 | 920.6 | 0.7181 | 21.081 | 761.2 | 0.7212 | 23.423 | 696.0 | 0.7246 |
| 4 | 20.927 | 973.1 | 0.6644 | 23.214 | 791.8 | 0.6717 | 25.781 | 710.0 | 0.6795 |
| 5 | 21.189 | 1003.0 | 0.6021 | 23.691 | 817.3 | 0.6144 | 26.454 | 722.5 | 0.6277 |
| 6 | 20.892 | 1019.4 | 0.5437 | 23.587 | 841.0 | 0.5606 | 26.571 | 736.8 | 0.5796 |
| 7 | 20.507 | 1026.1 | 0.4936 | 23.366 | 861.6 | 0.5138 | 26.595 | 753.0 | 0.5382 |
| 8 | 20.215 | 1026.0 | 0.4513 | 23.208 | 878.8 | 0.4734 | 26.691 | 770.1 | 0.5023 |
| 9 | 20.411 | 1028.3 | 0.4146 | 23.539 | 896.6 | 0.4372 | 27.313 | 790.3 | 0.4695 |
| 10 | 20.113 | 1020.5 | 0.3833 | 23.323 | 907.6 | 0.4058 | 27.335 | 807.2 | 0.4409 |
| 11 | 19.714 | 1009.8 | 0.3568 | 22.996 | 917.3 | 0.3789 | 27.226 | 822.9 | 0.4157 |
| 12 | 19.262 | 996.6 | 0.3341 | 22.612 | 926.6 | 0.3556 | 27.045 | 837.9 | 0.3933 |
| 13 | 18.778 | 981.5 | 0.3144 | 22.188 | 935.0 | 0.3353 | 26.811 | 852.2 | 0.3732 |
| 14 | 18.263 | 964.6 | 0.2971 | 21.709 | 940.0 | 0.3173 | 26.514 | 866.2 | 0.3551 |
| 15 | 17.704 | 946.0 | 0.2820 | 21.153 | 940.4 | 0.3014 | 26.132 | 879.7 | 0.3388 |
| 16 | 17.074 | 925.2 | 0.2687 | 20.489 | 935.6 | 0.2872 | 25.631 | 892.6 | 0.3242 |
| 17 | 16.311 | 902.1 | 0.2569 | 19.657 | 926.1 | 0.2747 | 24.937 | 903.7 | 0.3113 |
| 18 | 15.186 | 876.2 | 0.2470 | 18.435 | 912.8 | 0.2642 | 23.817 | 912.0 | 0.3006 |
| 19 | 14.244 | 848.3 | 0.2380 | 17.349 | 893.6 | 0.2544 | 22.733 | 912.1 | 0.2900 |
| 20 | 13.229 | 818.0 | 0.2299 | 16.139 | 868.1 | 0.2457 | 21.397 | 901.9 | 0.2803 |
| 21 | 12.006 | 782.0 | 0.2227 | 14.619 | 830.8 | 0.2377 | 19.509 | 872.7 | 0.2709 |
| 22 | 10.139 | 739.1 | 0.2168 | 12.375 | 785.9 | 0.2313 | 16.714 | 831.0 | 0.2639 |
| 23 | 7.963 | 692.7 | 0.2119 | 9.702 | 730.4 | 0.2259 | 13.189 | 770.4 | 0.2576 |
| 24 | 3.167 | 611.7 | 0.2088 | 3.847 | 624.5 | 0.2225 | 5.231 | 639.0 | 0.2534 |
| 25 | 1.801 | 588.9 | 0.2068 | 2.159 | 595.0 | 0.2196 | 2.872 | 601.5 | 0.2486 |

Table 4-64. LS1 Burnup and TH Feedback Parameters Assembly D11 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 4.984 | 602.2 | 0.7396 |
| 2 | 17.977 | 712.0 | 0.7396 |
| 3 | 23.480 | 733.1 | 0.7246 |
| 4 | 25.847 | 763.8 | 0.6796 |
| 5 | 26.526 | 784.9 | 0.628 |
| 6 | 26.648 | 803.0 | 0.58 |
| 7 | 26.676 | 817.8 | 0.5387 |
| 8 | 26.776 | 832.9 | 0.5028 |
| 9 | 27.402 | 848.3 | 0.4700 |
| 10 | 27.427 | 860.0 | 0.4414 |
| 11 | 27.321 | 871.9 | 0.4161 |
| 12 | 27.152 | 921.2 | 0.3937 |
| 13 | 26.959 | 1113.8 | 0.3737 |
| 14 | 26.673 | 1172.5 | 0.3555 |
| 15 | 26.290 | 1167.0 | 0.3391 |
| 16 | 25.782 | 1129.5 | 0.3244 |
| 17 | 25.081 | 1093.3 | 0.3114 |
| 18 | 23.954 | 1058.3 | 0.3007 |
| 19 | 22.861 | 1015.0 | 0.2902 |
| 20 | 21.517 | 978.1 | 0.2803 |
| 21 | 19.615 | 917.0 | 0.2710 |
| 22 | 16.807 | 863.9 | 0.2640 |
| 23 | 13.263 | 792.1 | 0.2576 |
| 24 | 5.261 | 648.0 | 0.2534 |
| 25 | 2.888 | 607.5 | 0.2487 |

Table 4-65. LS1 Burnup and TH Feedback Parameters Assembly D12

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.773 | 672.0 | 0.7396 | 2.867 | 673.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.422 | 1057.6 | 0.7396 | 10.401 | 1066.2 | 0.7396 |
| 3 | 0.000 | | 0.7067 | 8.552 | 1178.3 | 0.7067 | 13.783 | 1178.5 | 0.7063 |
| 4 | 0.000 | Data | 0.6388 | 9.427 | 1271.8 | 0.6388 | 15.066 | 1249.2 | 0.6386 |
| 5 | 0.000 | Not | 0.5631 | 9.470 | 1276.6 | 0.5631 | 15.116 | 1250.4 | 0.5635 |
| 6 | 0.000 | Required | 0.4966 | 9.253 | 1252.7 | 0.4966 | 14.805 | 1233.8 | 0.4975 |
| 7 | 0.000 | | 0.4440 | 9.038 | 1229.4 | 0.4440 | 14.492 | 1216.6 | 0.4450 |
| 8 | 0.000 | | 0.4019 | 8.916 | 1216.4 | 0.4019 | 14.294 | 1203.5 | 0.4031 |
| 9 | 0.000 | | 0.3667 | 9.119 | 1238.1 | 0.3667 | 14.523 | 1207.9 | 0.3680 |
| 10 | 0.000 | | 0.3369 | 9.022 | 1227.7 | 0.3369 | 14.370 | 1198.3 | 0.3384 |
| 11 | 0.000 | | 0.3118 | 8.878 | 1212.3 | 0.3118 | 14.166 | 1188.1 | 0.3134 |
| 12 | 0.000 | | 0.2905 | 8.712 | 1194.9 | 0.2905 | 13.943 | 1178.5 | 0.2920 |
| 13 | 0.000 | | 0.2720 | 8.527 | 1175.7 | 0.2720 | 13.701 | 1168.9 | 0.2736 |
| 14 | 0.000 | | 0.2561 | 8.312 | 1153.8 | 0.2561 | 13.428 | 1159.3 | 0.2575 |
| 15 | 0.000 | | 0.2421 | 8.055 | 1128.2 | 0.2421 | 13.105 | 1148.4 | 0.2434 |
| 16 | 0.000 | | 0.2299 | 7.741 | 1097.8 | 0.2299 | 12.707 | 1134.7 | 0.2309 |
| 17 | 0.000 | | 0.2192 | 7.340 | 1060.1 | 0.2192 | 12.188 | 1115.7 | 0.2200 |
| 18 | 0.000 | | 0.2100 | 6.700 | 1002.8 | 0.2100 | 11.341 | 1083.3 | 0.2104 |
| 19 | 0.000 | | 0.2022 | 6.266 | 965.9 | 0.2022 | 10.716 | 1054.3 | 0.2020 |
| 20 | 0.000 | | 0.1953 | 5.848 | 931.7 | 0.1953 | 10.065 | 1020.0 | 0.1946 |
| 21 | 0.000 | | 0.1893 | 5.399 | 896.4 | 0.1893 | 9.287 | 973.5 | 0.1882 |
| 22 | 0.000 | | 0.1842 | 4.621 | 838.6 | 0.1842 | 7.961 | 901.2 | 0.1827 |
| 23 | 0.000 | | 0.1801 | 3.724 | 776.7 | 0.1801 | 6.395 | 820.6 | 0.1783 |
| 24 | 0.000 | | 0.1773 | 1.489 | 641.7 | 0.1773 | 2.604 | 660.4 | 0.1755 |
| 25 | 0.000 | | 0.1764 | 0.889 | 609.3 | 0.1764 | 1.534 | 618.1 | 0.1744 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.735 | 613.9 | 0.7396 | 4.091 | 597.3 | 0.7396 | 4.625 | 593.6 | 0.7396 |
| 2 | 13.581 | 776.4 | 0.7396 | 14.830 | 698.4 | 0.7396 | 16.618 | 677.9 | 0.7396 |
| 3 | 17.889 | 806.7 | 0.7156 | 19.472 | 713.8 | 0.7187 | 21.649 | 685.8 | 0.7224 |
| 4 | 19.679 | 843.0 | 0.6596 | 21.459 | 734.9 | 0.6672 | 23.818 | 697.0 | 0.6758 |
| 5 | 20.076 | 868.8 | 0.5974 | 22.015 | 752.3 | 0.6102 | 24.518 | 706.0 | 0.6244 |
| 6 | 20.040 | 889.8 | 0.5418 | 22.122 | 768.3 | 0.5593 | 24.787 | 716.2 | 0.5788 |
| 7 | 19.947 | 907.1 | 0.4952 | 22.153 | 782.4 | 0.5164 | 24.998 | 727.8 | 0.5406 |
| 8 | 19.938 | 922.1 | 0.4555 | 22.246 | 794.3 | 0.4790 | 25.279 | 740.0 | 0.5072 |
| 9 | 20.402 | 941.3 | 0.4199 | 22.812 | 806.3 | 0.4446 | 26.071 | 755.0 | 0.4759 |
| 10 | 20.390 | 953.0 | 0.3890 | 22.855 | 812.9 | 0.4143 | 26.298 | 767.4 | 0.4482 |
| 11 | 20.276 | 960.5 | 0.3623 | 22.779 | 817.5 | 0.3875 | 26.400 | 779.6 | 0.4233 |
| 12 | 20.083 | 963.0 | 0.3388 | 22.618 | 821.3 | 0.3638 | 26.416 | 792.0 | 0.4009 |
| 13 | 19.822 | 961.4 | 0.3184 | 22.390 | 825.3 | 0.3430 | 26.365 | 804.5 | 0.3808 |
| 14 | 19.484 | 956.0 | 0.3002 | 22.087 | 829.6 | 0.3246 | 26.241 | 817.4 | 0.3627 |
| 15 | 19.056 | 947.2 | 0.2843 | 21.694 | 833.9 | 0.3083 | 26.027 | 830.5 | 0.3465 |
| 16 | 18.517 | 935.6 | 0.2702 | 21.185 | 837.6 | 0.2939 | 25.695 | 843.7 | 0.3321 |
| 17 | 17.819 | 921.1 | 0.2578 | 20.510 | 840.5 | 0.2815 | 25.187 | 856.3 | 0.3195 |
| 18 | 16.750 | 903.4 | 0.2474 | 19.458 | 842.6 | 0.2714 | 24.281 | 867.6 | 0.3095 |
| 19 | 15.836 | 881.0 | 0.2377 | 18.534 | 841.3 | 0.2616 | 23.422 | 872.6 | 0.2991 |
| 20 | 14.816 | 853.1 | 0.2289 | 17.466 | 835.4 | 0.2527 | 22.307 | 868.9 | 0.2893 |
| 21 | 13.521 | 815.7 | 0.2207 | 16.013 | 816.1 | 0.2441 | 20.585 | 848.4 | 0.2796 |
| 22 | 11.524 | 769.6 | 0.2141 | 13.755 | 785.3 | 0.2376 | 17.883 | 815.5 | 0.2725 |
| 23 | 9.123 | 716.0 | 0.2082 | 10.911 | 735.7 | 0.2313 | 14.277 | 762.2 | 0.2655 |
| 24 | 3.670 | 619.6 | 0.2043 | 4.370 | 626.4 | 0.2265 | 5.720 | 637.1 | 0.2602 |
| 25 | 2.094 | 592.4 | 0.2007 | 2.450 | 594.8 | 0.2211 | 3.140 | 600.2 | 0.2529 |

Table 4-65. LS1 Burnup and TH Feedback Parameters Assembly D12 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 4.638 | 602.2 | 0.7396 |
| 2 | 16.664 | 719.6 | 0.7396 |
| 3 | 21.709 | 743.2 | 0.7226 |
| 4 | 23.889 | 781.4 | 0.676 |
| 5 | 24.597 | 810.4 | 0.6247 |
| 6 | 24.872 | 832.9 | 0.5792 |
| 7 | 25.089 | 856.1 | 0.5410 |
| 8 | 25.375 | 875.9 | 0.5077 |
| 9 | 26.171 | 892.1 | 0.4764 |
| 10 | 26.399 | 896.2 | 0.4487 |
| 11 | 26.501 | 896.2 | 0.4236 |
| 12 | 26.516 | 892.1 | 0.4012 |
| 13 | 26.465 | 892.1 | 0.3811 |
| 14 | 26.339 | 884.0 | 0.3630 |
| 15 | 26.124 | 879.9 | 0.3468 |
| 16 | 25.790 | 871.9 | 0.3324 |
| 17 | 25.280 | 863.9 | 0.3197 |
| 18 | 24.381 | 892.1 | 0.3097 |
| 19 | 23.554 | 1034.0 | 0.2993 |
| 20 | 22.443 | 1053.4 | 0.2895 |
| 21 | 20.710 | 1001.0 | 0.2798 |
| 22 | 17.993 | 934.0 | 0.2726 |
| 23 | 14.364 | 840.6 | 0.2657 |
| 24 | 5.757 | 669.2 | 0.2602 |
| 25 | 3.160 | 618.9 | 0.2530 |

Table 4-66. LS1 Burnup and TH Feedback Parameters Assembly D13

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.723 | 668.6 | 0.7396 | 2.867 | 678.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.216 | 1037.0 | 0.7396 | 10.336 | 1089.9 | 0.7396 |
| 3 | 0.000 | | 0.7113 | 8.224 | 1145.0 | 0.7113 | 13.585 | 1200.5 | 0.7082 |
| 4 | 0.000 | Data | 0.6486 | 9.015 | 1226.9 | 0.6486 | 14.728 | 1262.4 | 0.6433 |
| 5 | 0.000 | Not | 0.5769 | 9.020 | 1227.5 | 0.5769 | 14.668 | 1250.8 | 0.5706 |
| 6 | 0.000 | Required | 0.5121 | 8.786 | 1202.6 | 0.5121 | 14.283 | 1224.1 | 0.5058 |
| 7 | 0.000 | | 0.4597 | 8.569 | 1180.0 | 0.4597 | 13.936 | 1201.6 | 0.4538 |
| 8 | 0.000 | | 0.4175 | 8.452 | 1168.0 | 0.4175 | 13.731 | 1186.6 | 0.4120 |
| 9 | 0.000 | | 0.3820 | 8.648 | 1188.2 | 0.3820 | 13.966 | 1193.2 | 0.3771 |
| 10 | 0.000 | | 0.3516 | 8.543 | 1177.4 | 0.3516 | 13.812 | 1184.9 | 0.3472 |
| 11 | 0.000 | | 0.3260 | 8.375 | 1160.2 | 0.3260 | 13.592 | 1176.1 | 0.3220 |
| 12 | 0.000 | | 0.3043 | 8.179 | 1140.5 | 0.3043 | 13.345 | 1167.6 | 0.3004 |
| 13 | 0.000 | | 0.2856 | 7.970 | 1119.9 | 0.2856 | 13.085 | 1159.1 | 0.2818 |
| 14 | 0.000 | | 0.2694 | 7.752 | 1098.8 | 0.2694 | 12.815 | 1150.5 | 0.2654 |
| 15 | 0.000 | | 0.2552 | 7.523 | 1077.1 | 0.2552 | 12.531 | 1141.5 | 0.2512 |
| 16 | 0.000 | | 0.2428 | 7.276 | 1054.2 | 0.2428 | 12.225 | 1131.9 | 0.2384 |
| 17 | 0.000 | | 0.2318 | 6.987 | 1028.1 | 0.2318 | 11.860 | 1119.7 | 0.2272 |
| 18 | 0.000 | | 0.2221 | 6.490 | 984.8 | 0.2221 | 11.190 | 1092.4 | 0.2172 |
| 19 | 0.000 | | 0.2138 | 6.190 | 959.6 | 0.2138 | 10.717 | 1065.9 | 0.2086 |
| 20 | 0.000 | | 0.2064 | 5.870 | 933.4 | 0.2064 | 10.148 | 1028.8 | 0.2009 |
| 21 | 0.000 | | 0.1998 | 5.476 | 902.3 | 0.1998 | 9.400 | 978.5 | 0.1941 |
| 22 | 0.000 | | 0.1942 | 4.711 | 845.1 | 0.1942 | 8.063 | 902.7 | 0.1885 |
| 23 | 0.000 | | 0.1897 | 3.794 | 781.4 | 0.1897 | 6.459 | 819.9 | 0.1840 |
| 24 | 0.000 | | 0.1868 | 1.506 | 642.7 | 0.1868 | 2.611 | 659.5 | 0.1810 |
| 25 | 0.000 | | 0.1857 | 0.890 | 609.3 | 0.1857 | 1.526 | 617.3 | 0.1799 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.980 | 629.7 | 0.7396 | 4.496 | 614.5 | 0.7396 | 5.183 | 603.5 | 0.7396 |
| 2 | 14.369 | 845.0 | 0.7396 | 16.156 | 765.7 | 0.7396 | 18.404 | 711.1 | 0.7396 |
| 3 | 18.777 | 886.5 | 0.7165 | 21.048 | 790.0 | 0.7198 | 23.784 | 720.7 | 0.7236 |
| 4 | 20.534 | 935.3 | 0.6620 | 23.090 | 823.9 | 0.6696 | 26.057 | 735.7 | 0.6782 |
| 5 | 20.847 | 966.3 | 0.6000 | 23.605 | 848.8 | 0.6123 | 26.743 | 746.9 | 0.6265 |
| 6 | 20.703 | 987.0 | 0.5423 | 23.618 | 868.8 | 0.5586 | 26.938 | 759.1 | 0.5782 |
| 7 | 20.501 | 999.6 | 0.4927 | 23.532 | 883.8 | 0.5115 | 27.054 | 772.8 | 0.5358 |
| 8 | 20.383 | 1007.3 | 0.4504 | 23.499 | 895.0 | 0.4702 | 27.234 | 787.5 | 0.4983 |
| 9 | 20.738 | 1018.0 | 0.4132 | 23.947 | 907.4 | 0.4331 | 27.940 | 805.8 | 0.4639 |
| 10 | 20.587 | 1018.3 | 0.3815 | 23.837 | 913.0 | 0.4011 | 28.041 | 821.0 | 0.4339 |
| 11 | 20.326 | 1014.6 | 0.3545 | 23.602 | 916.5 | 0.3736 | 28.009 | 836.0 | 0.4076 |
| 12 | 19.998 | 1007.4 | 0.3312 | 23.291 | 918.8 | 0.3497 | 27.894 | 850.7 | 0.3843 |
| 13 | 19.622 | 997.2 | 0.3109 | 22.929 | 920.7 | 0.3289 | 27.724 | 865.4 | 0.3637 |
| 14 | 19.204 | 984.3 | 0.2932 | 22.523 | 922.4 | 0.3106 | 27.501 | 879.6 | 0.3452 |
| 15 | 18.736 | 968.5 | 0.2775 | 22.058 | 922.8 | 0.2945 | 27.212 | 893.6 | 0.3286 |
| 16 | 18.208 | 949.9 | 0.2637 | 21.515 | 920.7 | 0.2801 | 26.830 | 906.5 | 0.3137 |
| 17 | 17.579 | 928.2 | 0.2513 | 20.845 | 915.2 | 0.2673 | 26.296 | 917.6 | 0.3004 |
| 18 | 16.607 | 904.1 | 0.2408 | 19.812 | 906.9 | 0.2564 | 25.363 | 925.9 | 0.2891 |
| 19 | 15.793 | 877.6 | 0.2311 | 18.894 | 893.0 | 0.2462 | 24.450 | 926.3 | 0.2781 |
| 20 | 14.839 | 848.7 | 0.2226 | 17.793 | 873.8 | 0.2372 | 23.232 | 916.6 | 0.2681 |
| 21 | 13.581 | 812.0 | 0.2150 | 16.279 | 841.3 | 0.2291 | 21.363 | 888.0 | 0.2587 |
| 22 | 11.595 | 767.6 | 0.2088 | 13.956 | 800.5 | 0.2227 | 18.503 | 846.5 | 0.2516 |
| 23 | 9.181 | 715.6 | 0.2036 | 11.061 | 745.8 | 0.2172 | 14.750 | 784.3 | 0.2453 |
| 24 | 3.684 | 619.9 | 0.2003 | 4.435 | 631.2 | 0.2136 | 5.939 | 645.9 | 0.2414 |
| 25 | 2.098 | 593.1 | 0.1979 | 2.493 | 598.4 | 0.2105 | 3.278 | 605.5 | 0.2368 |

Table 4-66. LS1 Burnup and TH Feedback Parameters Assembly D13 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.196 | 602.2 | 0.7396 |
| 2 | 18.449 | 715.8 | 0.7396 |
| 3 | 23.844 | 743.2 | 0.7236 |
| 4 | 26.126 | 774.3 | 0.6784 |
| 5 | 26.822 | 810.4 | 0.6268 |
| 6 | 27.036 | 884.0 | 0.5786 |
| 7 | 27.198 | 1093.3 | 0.5363 |
| 8 | 27.395 | 1183.5 | 0.4988 |
| 9 | 28.106 | 1211.4 | 0.4643 |
| 10 | 28.205 | 1200.2 | 0.4341 |
| 11 | 28.170 | 1183.5 | 0.4077 |
| 12 | 28.052 | 1167.0 | 0.3843 |
| 13 | 27.878 | 1145.4 | 0.3636 |
| 14 | 27.652 | 1129.5 | 0.3451 |
| 15 | 27.360 | 1113.8 | 0.3285 |
| 16 | 26.975 | 1098.4 | 0.3136 |
| 17 | 26.436 | 1073.1 | 0.3002 |
| 18 | 25.499 | 1053.3 | 0.2889 |
| 19 | 24.580 | 1024.4 | 0.2780 |
| 20 | 23.354 | 987.2 | 0.2679 |
| 21 | 21.473 | 934.0 | 0.2585 |
| 22 | 18.600 | 879.9 | 0.2514 |
| 23 | 14.828 | 806.7 | 0.2452 |
| 24 | 5.973 | 660.0 | 0.2412 |
| 25 | 3.297 | 616.0 | 0.2366 |

Table 4-67. LS1 Burnup and TH Feedback Parameters Assembly D14

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.709 | 667.7 | 0.7396 | 2.881 | 681.8 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.185 | 1033.9 | 0.7396 | 10.421 | 1109.8 | 0.7396 |
| 3 | 0.000 | | 0.7123 | 8.205 | 1143.1 | 0.7123 | 13.717 | 1226.7 | 0.7078 |
| 4 | 0.000 | Data | 0.6505 | 9.006 | 1226.0 | 0.6505 | 14.862 | 1288.4 | 0.6426 |
| 5 | 0.000 | Not | 0.5794 | 8.998 | 1225.1 | 0.5794 | 14.756 | 1270.6 | 0.5699 |
| 6 | 0.000 | Required | 0.5149 | 8.733 | 1197.1 | 0.5149 | 14.298 | 1236.0 | 0.5053 |
| 7 | 0.000 | | 0.4625 | 8.482 | 1171.1 | 0.4625 | 13.877 | 1206.4 | 0.4537 |
| 8 | 0.000 | | 0.4204 | 8.346 | 1157.3 | 0.4204 | 13.625 | 1186.6 | 0.4124 |
| 9 | 0.000 | | 0.3850 | 8.532 | 1176.2 | 0.3850 | 13.831 | 1190.0 | 0.3778 |
| 10 | 0.000 | | 0.3547 | 8.417 | 1164.5 | 0.3547 | 13.651 | 1179.0 | 0.3483 |
| 11 | 0.000 | | 0.3293 | 8.235 | 1146.1 | 0.3293 | 13.401 | 1167.6 | 0.3233 |
| 12 | 0.000 | | 0.3076 | 8.023 | 1125.1 | 0.3076 | 13.121 | 1156.3 | 0.3019 |
| 13 | 0.000 | | 0.2891 | 7.799 | 1103.3 | 0.2891 | 12.831 | 1145.4 | 0.2835 |
| 14 | 0.000 | | 0.2730 | 7.568 | 1081.3 | 0.2730 | 12.533 | 1134.5 | 0.2675 |
| 15 | 0.000 | | 0.2589 | 7.326 | 1058.8 | 0.2589 | 12.218 | 1122.8 | 0.2533 |
| 16 | 0.000 | | 0.2465 | 7.062 | 1034.8 | 0.2465 | 11.868 | 1109.1 | 0.2409 |
| 17 | 0.000 | | 0.2356 | 6.742 | 1006.5 | 0.2356 | 11.428 | 1090.3 | 0.2298 |
| 18 | 0.000 | | 0.2261 | 6.209 | 961.1 | 0.2261 | 10.671 | 1056.1 | 0.2200 |
| 19 | 0.000 | | 0.2180 | 5.875 | 933.8 | 0.2180 | 10.130 | 1025.5 | 0.2117 |
| 20 | 0.000 | | 0.2107 | 5.542 | 907.5 | 0.2107 | 9.542 | 989.1 | 0.2043 |
| 21 | 0.000 | | 0.2043 | 5.157 | 878.0 | 0.2043 | 8.818 | 942.9 | 0.1978 |
| 22 | 0.000 | | 0.1989 | 4.429 | 824.9 | 0.1989 | 7.545 | 873.3 | 0.1923 |
| 23 | 0.000 | | 0.1946 | 3.562 | 766.1 | 0.1946 | 6.032 | 797.9 | 0.1880 |
| 24 | 0.000 | | 0.1917 | 1.407 | 637.2 | 0.1917 | 2.425 | 651.5 | 0.1851 |
| 25 | 0.000 | | 0.1906 | 0.830 | 606.2 | 0.1906 | 1.415 | 612.9 | 0.1841 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.157 | 640.3 | 0.7396 | 4.713 | 618.9 | 0.7396 | 5.381 | 602.2 | 0.7396 |
| 2 | 15.046 | 895.7 | 0.7396 | 16.953 | 781.5 | 0.7396 | 19.119 | 705.1 | 0.7396 |
| 3 | 19.647 | 945.5 | 0.7147 | 22.060 | 806.7 | 0.7179 | 24.694 | 714.3 | 0.7217 |
| 4 | 21.431 | 1000.0 | 0.6579 | 24.141 | 842.8 | 0.6654 | 27.007 | 729.1 | 0.6739 |
| 5 | 21.660 | 1029.9 | 0.5932 | 24.595 | 871.3 | 0.6056 | 27.660 | 742.1 | 0.6198 |
| 6 | 21.382 | 1046.4 | 0.5335 | 24.503 | 895.7 | 0.5499 | 27.790 | 756.9 | 0.5697 |
| 7 | 21.039 | 1053.6 | 0.4828 | 24.303 | 914.9 | 0.5017 | 27.836 | 773.6 | 0.5266 |
| 8 | 20.800 | 1054.8 | 0.4405 | 24.170 | 929.4 | 0.4601 | 27.959 | 791.3 | 0.4892 |
| 9 | 21.050 | 1058.9 | 0.4041 | 24.531 | 944.9 | 0.4234 | 28.616 | 812.4 | 0.4555 |
| 10 | 20.800 | 1052.4 | 0.3732 | 24.334 | 952.4 | 0.3919 | 28.662 | 830.1 | 0.4262 |
| 11 | 20.441 | 1042.3 | 0.3468 | 24.010 | 957.4 | 0.3649 | 28.567 | 847.2 | 0.4005 |
| 12 | 20.020 | 1029.4 | 0.3241 | 23.616 | 961.2 | 0.3415 | 28.407 | 865.1 | 0.3780 |
| 13 | 19.561 | 1014.2 | 0.3045 | 23.178 | 964.2 | 0.3213 | 28.254 | 887.4 | 0.3585 |
| 14 | 19.067 | 996.9 | 0.2874 | 22.695 | 965.8 | 0.3035 | 27.990 | 904.9 | 0.3404 |
| 15 | 18.528 | 977.5 | 0.2723 | 22.150 | 964.9 | 0.2878 | 27.627 | 919.7 | 0.3239 |
| 16 | 17.921 | 955.7 | 0.2591 | 21.512 | 960.5 | 0.2739 | 27.152 | 933.3 | 0.3092 |
| 17 | 17.191 | 931.8 | 0.2474 | 20.721 | 951.8 | 0.2617 | 26.496 | 944.6 | 0.2962 |
| 18 | 16.119 | 906.5 | 0.2377 | 19.563 | 939.7 | 0.2514 | 25.436 | 953.0 | 0.2853 |
| 19 | 15.263 | 882.0 | 0.2294 | 18.568 | 920.5 | 0.2424 | 24.433 | 952.3 | 0.2750 |
| 20 | 14.270 | 851.4 | 0.2216 | 17.387 | 895.1 | 0.2339 | 23.114 | 940.6 | 0.2653 |
| 21 | 13.003 | 812.2 | 0.2144 | 15.820 | 856.3 | 0.2261 | 21.155 | 908.1 | 0.2560 |
| 22 | 11.040 | 765.1 | 0.2084 | 13.476 | 809.4 | 0.2199 | 18.228 | 862.1 | 0.2490 |
| 23 | 8.702 | 712.4 | 0.2034 | 10.619 | 749.8 | 0.2146 | 14.457 | 794.8 | 0.2428 |
| 24 | 3.475 | 618.7 | 0.2002 | 4.236 | 632.1 | 0.2112 | 5.791 | 648.9 | 0.2389 |
| 25 | 1.977 | 592.5 | 0.1981 | 2.380 | 599.1 | 0.2086 | 3.189 | 606.8 | 0.2347 |

Table 4-67. LS1 Burnup and TH Feedback Parameters Assembly D14 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.393 | 598.9 | 0.7396 |
| 2 | 19.163 | 712.0 | 0.7396 |
| 3 | 24.751 | 733.1 | 0.7217 |
| 4 | 27.074 | 767.3 | 0.6741 |
| 5 | 27.733 | 788.5 | 0.6201 |
| 6 | 27.870 | 814.1 | 0.5702 |
| 7 | 27.922 | 836.7 | 0.5271 |
| 8 | 28.049 | 852.2 | 0.4898 |
| 9 | 28.710 | 867.9 | 0.4560 |
| 10 | 28.758 | 875.9 | 0.4267 |
| 11 | 28.664 | 879.9 | 0.4010 |
| 12 | 28.504 | 879.9 | 0.3784 |
| 13 | 28.351 | 879.9 | 0.3589 |
| 14 | 28.086 | 875.9 | 0.3408 |
| 15 | 27.722 | 871.9 | 0.3243 |
| 16 | 27.245 | 863.9 | 0.3095 |
| 17 | 26.589 | 863.9 | 0.2964 |
| 18 | 25.536 | 892.1 | 0.2855 |
| 19 | 24.564 | 1029.2 | 0.2754 |
| 20 | 23.250 | 1053.3 | 0.2657 |
| 21 | 21.280 | 1001.0 | 0.2564 |
| 22 | 18.336 | 925.5 | 0.2493 |
| 23 | 14.544 | 840.6 | 0.2431 |
| 24 | 5.827 | 666.1 | 0.2392 |
| 25 | 3.209 | 618.9 | 0.2350 |

Table 4-68. LS1 Burnup and TH Feedback Parameters Assembly D15

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.499 | 653.7 | 0.7396 | 2.525 | 665.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.522 | 970.2 | 0.7396 | 9.303 | 1033.7 | 0.7396 |
| 3 | 0.000 | | 0.7215 | 7.489 | 1073.9 | 0.7215 | 12.578 | 1154.8 | 0.7179 |
| 4 | 0.000 | Data | 0.6696 | 8.357 | 1158.4 | 0.6696 | 13.856 | 1224.5 | 0.6624 |
| 5 | 0.000 | Not | 0.6059 | 8.393 | 1162.0 | 0.6059 | 13.802 | 1208.8 | 0.5965 |
| 6 | 0.000 | Required | 0.5444 | 8.118 | 1134.5 | 0.5444 | 13.307 | 1171.4 | 0.5346 |
| 7 | 0.000 | | 0.4923 | 7.833 | 1106.6 | 0.4923 | 12.820 | 1138.1 | 0.4830 |
| 8 | 0.000 | | 0.4495 | 7.665 | 1090.5 | 0.4495 | 12.515 | 1116.1 | 0.4411 |
| 9 | 0.000 | | 0.4135 | 7.806 | 1104.0 | 0.4135 | 12.676 | 1119.2 | 0.4059 |
| 10 | 0.000 | | 0.3827 | 7.676 | 1091.6 | 0.3827 | 12.467 | 1106.7 | 0.3758 |
| 11 | 0.000 | | 0.3566 | 7.487 | 1073.7 | 0.3566 | 12.194 | 1093.5 | 0.3502 |
| 12 | 0.000 | | 0.3343 | 7.280 | 1054.6 | 0.3343 | 11.904 | 1080.7 | 0.3282 |
| 13 | 0.000 | | 0.3151 | 7.070 | 1035.5 | 0.3151 | 11.613 | 1068.3 | 0.3092 |
| 14 | 0.000 | | 0.2984 | 6.855 | 1016.4 | 0.2984 | 11.317 | 1056.1 | 0.2927 |
| 15 | 0.000 | | 0.2838 | 6.628 | 996.6 | 0.2838 | 11.004 | 1043.2 | 0.2780 |
| 16 | 0.000 | | 0.2709 | 6.375 | 975.0 | 0.2709 | 10.648 | 1028.1 | 0.2651 |
| 17 | 0.000 | | 0.2595 | 6.059 | 948.8 | 0.2595 | 10.189 | 1007.5 | 0.2536 |
| 18 | 0.000 | | 0.2497 | 5.535 | 906.9 | 0.2497 | 9.415 | 972.4 | 0.2436 |
| 19 | 0.000 | | 0.2412 | 5.203 | 881.4 | 0.2412 | 8.877 | 944.6 | 0.2349 |
| 20 | 0.000 | | 0.2337 | 4.886 | 857.8 | 0.2337 | 8.334 | 915.0 | 0.2273 |
| 21 | 0.000 | | 0.2271 | 4.537 | 832.6 | 0.2271 | 7.705 | 879.7 | 0.2207 |
| 22 | 0.000 | | 0.2214 | 3.883 | 787.4 | 0.2214 | 6.583 | 823.9 | 0.2150 |
| 23 | 0.000 | | 0.2170 | 3.117 | 737.6 | 0.2170 | 5.261 | 762.4 | 0.2105 |
| 24 | 0.000 | | 0.2140 | 1.229 | 627.5 | 0.2140 | 2.106 | 638.7 | 0.2076 |
| 25 | 0.000 | | 0.2129 | 0.722 | 600.5 | 0.2129 | 1.222 | 605.5 | 0.2065 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.849 | 643.5 | 0.7396 | 4.493 | 628.5 | 0.7396 | 5.364 | 615.4 | 0.7396 |
| 2 | 14.180 | 918.2 | 0.7396 | 16.442 | 829.8 | 0.7396 | 19.309 | 758.0 | 0.7396 |
| 3 | 18.907 | 979.1 | 0.7217 | 21.814 | 867.7 | 0.7240 | 25.322 | 771.8 | 0.7272 |
| 4 | 20.895 | 1042.2 | 0.6710 | 24.171 | 916.5 | 0.6765 | 27.961 | 791.4 | 0.6841 |
| 5 | 21.189 | 1074.7 | 0.6097 | 24.693 | 948.1 | 0.6188 | 28.677 | 805.2 | 0.6315 |
| 6 | 20.857 | 1090.3 | 0.5499 | 24.502 | 968.3 | 0.5616 | 28.686 | 819.6 | 0.5796 |
| 7 | 20.430 | 1096.1 | 0.4978 | 24.157 | 980.2 | 0.5107 | 28.556 | 835.4 | 0.5330 |
| 8 | 20.141 | 1097.7 | 0.4541 | 23.917 | 987.4 | 0.4669 | 28.535 | 851.8 | 0.4925 |
| 9 | 20.368 | 1104.1 | 0.4171 | 24.217 | 998.2 | 0.4293 | 29.097 | 872.0 | 0.4565 |
| 10 | 20.098 | 1098.2 | 0.3855 | 23.961 | 1000.3 | 0.3971 | 29.045 | 888.0 | 0.4253 |
| 11 | 19.715 | 1087.5 | 0.3587 | 23.575 | 999.9 | 0.3696 | 28.851 | 903.4 | 0.3981 |
| 12 | 19.276 | 1073.3 | 0.3356 | 23.129 | 998.8 | 0.3461 | 28.593 | 918.7 | 0.3744 |
| 13 | 18.804 | 1056.3 | 0.3158 | 22.650 | 997.8 | 0.3257 | 28.299 | 934.0 | 0.3535 |
| 14 | 18.297 | 1036.8 | 0.2985 | 22.134 | 996.4 | 0.3079 | 27.960 | 949.0 | 0.3350 |
| 15 | 17.738 | 1014.6 | 0.2833 | 21.556 | 993.6 | 0.2922 | 27.548 | 963.2 | 0.3186 |
| 16 | 17.096 | 989.4 | 0.2699 | 20.871 | 987.2 | 0.2784 | 27.010 | 976.0 | 0.3040 |
| 17 | 16.299 | 960.5 | 0.2583 | 19.996 | 975.8 | 0.2662 | 26.254 | 986.5 | 0.2911 |
| 18 | 15.135 | 928.3 | 0.2481 | 18.725 | 960.4 | 0.2557 | 25.060 | 993.4 | 0.2800 |
| 19 | 14.187 | 895.7 | 0.2393 | 17.621 | 938.3 | 0.2464 | 23.917 | 989.9 | 0.2696 |
| 20 | 13.204 | 862.0 | 0.2315 | 16.438 | 910.8 | 0.2381 | 22.551 | 973.7 | 0.2601 |
| 21 | 12.027 | 822.0 | 0.2247 | 14.949 | 869.7 | 0.2308 | 20.606 | 934.7 | 0.2514 |
| 22 | 10.190 | 772.6 | 0.2190 | 12.711 | 819.6 | 0.2249 | 17.711 | 881.4 | 0.2444 |
| 23 | 8.027 | 718.3 | 0.2145 | 10.011 | 757.3 | 0.2200 | 14.035 | 808.0 | 0.2387 |
| 24 | 3.204 | 621.3 | 0.2116 | 3.998 | 635.2 | 0.2170 | 5.640 | 653.9 | 0.2353 |
| 25 | 1.822 | 594.5 | 0.2103 | 2.252 | 601.5 | 0.2155 | 3.126 | 610.4 | 0.2327 |

Table 4-68. LS1 Burnup and TH Feedback Parameters Assembly D15 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.377 | 602.2 | 0.7396 |
| 2 | 19.351 | 704.5 | 0.7396 |
| 3 | 25.376 | 723.1 | 0.7272 |
| 4 | 28.023 | 750.0 | 0.6842 |
| 5 | 28.745 | 770.8 | 0.6318 |
| 6 | 28.759 | 788.5 | 0.58 |
| 7 | 28.634 | 806.7 | 0.5335 |
| 8 | 28.617 | 821.6 | 0.4930 |
| 9 | 29.183 | 836.7 | 0.4570 |
| 10 | 29.134 | 848.3 | 0.4258 |
| 11 | 28.942 | 856.1 | 0.3987 |
| 12 | 28.684 | 856.1 | 0.3749 |
| 13 | 28.389 | 852.2 | 0.3540 |
| 14 | 28.050 | 852.2 | 0.3355 |
| 15 | 27.636 | 844.4 | 0.3191 |
| 16 | 27.096 | 836.7 | 0.3045 |
| 17 | 26.336 | 821.6 | 0.2915 |
| 18 | 25.138 | 806.7 | 0.2803 |
| 19 | 23.990 | 788.5 | 0.2699 |
| 20 | 22.619 | 770.8 | 0.2604 |
| 21 | 20.667 | 746.6 | 0.2517 |
| 22 | 17.764 | 719.8 | 0.2448 |
| 23 | 14.077 | 684.6 | 0.2390 |
| 24 | 5.657 | 610.3 | 0.2356 |
| 25 | 3.139 | 599.0 | 0.2332 |

Table 4-69. LS1 Burnup and TH Feedback Parameters Assembly D16

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.775 | 672.1 | 0.7396 | 2.869 | 673.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.425 | 1057.9 | 0.7396 | 10.406 | 1066.5 | 0.7396 |
| 3 | 0.000 | | 0.7066 | 8.555 | 1178.6 | 0.7066 | 13.787 | 1178.6 | 0.7062 |
| 4 | 0.000 | Data | 0.6385 | 9.428 | 1272.0 | 0.6385 | 15.069 | 1249.5 | 0.6383 |
| 5 | 0.000 | Not | 0.5627 | 9.469 | 1276.5 | 0.5627 | 15.115 | 1250.4 | 0.5631 |
| 6 | 0.000 | Required | 0.4961 | 9.251 | 1252.5 | 0.4961 | 14.803 | 1233.8 | 0.4970 |
| 7 | 0.000 | | 0.4435 | 9.035 | 1229.1 | 0.4435 | 14.488 | 1216.4 | 0.4446 |
| 8 | 0.000 | | 0.4015 | 8.913 | 1216.0 | 0.4015 | 14.290 | 1203.3 | 0.4027 |
| 9 | 0.000 | | 0.3663 | 9.116 | 1237.8 | 0.3663 | 14.519 | 1207.8 | 0.3676 |
| 10 | 0.000 | | 0.3365 | 9.019 | 1227.4 | 0.3365 | 14.366 | 1198.1 | 0.3380 |
| 11 | 0.000 | | 0.3114 | 8.875 | 1212.0 | 0.3114 | 14.163 | 1188.1 | 0.3130 |
| 12 | 0.000 | | 0.2901 | 8.710 | 1194.7 | 0.2901 | 13.939 | 1178.1 | 0.2917 |
| 13 | 0.000 | | 0.2718 | 8.524 | 1175.4 | 0.2718 | 13.698 | 1168.9 | 0.2733 |
| 14 | 0.000 | | 0.2558 | 8.310 | 1153.6 | 0.2558 | 13.425 | 1159.1 | 0.2572 |
| 15 | 0.000 | | 0.2418 | 8.053 | 1128.0 | 0.2418 | 13.101 | 1148.0 | 0.2431 |
| 16 | 0.000 | | 0.2296 | 7.739 | 1097.6 | 0.2296 | 12.704 | 1134.5 | 0.2306 |
| 17 | 0.000 | | 0.2190 | 7.338 | 1059.9 | 0.2190 | 12.185 | 1115.6 | 0.2197 |
| 18 | 0.000 | | 0.2098 | 6.699 | 1002.7 | 0.2098 | 11.338 | 1083.0 | 0.2101 |
| 19 | 0.000 | | 0.2019 | 6.265 | 965.8 | 0.2019 | 10.714 | 1054.1 | 0.2017 |
| 20 | 0.000 | | 0.1951 | 5.847 | 931.6 | 0.1951 | 10.062 | 1019.7 | 0.1944 |
| 21 | 0.000 | | 0.1891 | 5.397 | 896.2 | 0.1891 | 9.285 | 973.5 | 0.1880 |
| 22 | 0.000 | | 0.1840 | 4.620 | 838.5 | 0.1840 | 7.959 | 901.1 | 0.1825 |
| 23 | 0.000 | | 0.1799 | 3.724 | 776.7 | 0.1799 | 6.393 | 820.4 | 0.1781 |
| 24 | 0.000 | | 0.1771 | 1.489 | 641.7 | 0.1771 | 2.604 | 660.4 | 0.1752 |
| 25 | 0.000 | | 0.1761 | 0.890 | 609.3 | 0.1761 | 1.534 | 618.0 | 0.1741 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.822 | 619.3 | 0.7396 | 4.252 | 605.2 | 0.7396 | 5.386 | 632.9 | 0.7396 |
| 2 | 13.933 | 803.7 | 0.7396 | 15.495 | 736.9 | 0.7396 | 19.223 | 827.5 | 0.7396 |
| 3 | 18.456 | 847.1 | 0.7134 | 20.558 | 770.5 | 0.7173 | 25.131 | 848.4 | 0.7212 |
| 4 | 20.374 | 895.3 | 0.6553 | 22.820 | 810.6 | 0.6644 | 27.716 | 873.2 | 0.6729 |
| 5 | 20.790 | 924.6 | 0.5909 | 23.462 | 838.1 | 0.6056 | 28.522 | 886.1 | 0.6187 |
| 6 | 20.703 | 943.0 | 0.5332 | 23.518 | 856.0 | 0.5521 | 28.721 | 897.5 | 0.5685 |
| 7 | 20.544 | 956.0 | 0.4852 | 23.440 | 866.3 | 0.5065 | 28.792 | 909.5 | 0.5246 |
| 8 | 20.504 | 969.3 | 0.4449 | 23.446 | 872.2 | 0.4670 | 28.942 | 921.3 | 0.4857 |
| 9 | 21.191 | 1009.1 | 0.4103 | 24.169 | 876.9 | 0.4317 | 29.835 | 935.4 | 0.4501 |
| 10 | 22.190 | 1117.1 | 0.3828 | 25.103 | 868.5 | 0.4020 | 30.798 | 937.9 | 0.4191 |
| 11 | 22.274 | 1145.8 | 0.3536 | 25.159 | 864.9 | 0.3723 | 30.972 | 947.9 | 0.3893 |
| 12 | 22.038 | 1144.6 | 0.3279 | 24.908 | 863.0 | 0.3464 | 30.870 | 960.6 | 0.3634 |
| 13 | 21.978 | 1163.1 | 0.3073 | 24.824 | 859.9 | 0.3251 | 30.913 | 971.6 | 0.3414 |
| 14 | 21.557 | 1148.0 | 0.2878 | 24.407 | 860.4 | 0.3055 | 30.657 | 985.8 | 0.3216 |
| 15 | 20.969 | 1121.4 | 0.2706 | 23.826 | 861.3 | 0.2884 | 30.244 | 1000.8 | 0.3043 |
| 16 | 20.362 | 1100.8 | 0.2565 | 23.203 | 859.3 | 0.2741 | 29.766 | 1014.0 | 0.2892 |
| 17 | 19.456 | 1063.8 | 0.2435 | 22.252 | 853.6 | 0.2610 | 28.949 | 1026.3 | 0.2757 |
| 18 | 18.156 | 1022.1 | 0.2325 | 20.883 | 844.9 | 0.2501 | 27.686 | 1036.2 | 0.2642 |
| 19 | 17.085 | 982.7 | 0.2230 | 19.720 | 833.5 | 0.2404 | 26.538 | 1037.6 | 0.2538 |
| 20 | 15.923 | 939.8 | 0.2143 | 18.557 | 833.4 | 0.2323 | 25.231 | 1024.2 | 0.2447 |
| 21 | 14.480 | 886.7 | 0.2065 | 17.426 | 872.8 | 0.2269 | 23.558 | 975.4 | 0.2374 |
| 22 | 12.339 | 826.1 | 0.2003 | 15.073 | 845.8 | 0.2209 | 20.513 | 916.7 | 0.2305 |
| 23 | 9.785 | 758.3 | 0.1950 | 11.986 | 781.9 | 0.2150 | 16.412 | 837.4 | 0.2241 |
| 24 | 3.971 | 636.1 | 0.1918 | 4.872 | 645.4 | 0.2114 | 6.780 | 669.6 | 0.2204 |
| 25 | 2.286 | 602.6 | 0.1899 | 2.808 | 609.9 | 0.2097 | 3.884 | 621.6 | 0.2187 |

Table 4-69. LS1 Burnup and TH Feedback Parameters Assembly D16 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.408 | 632.6 | 0.7396 |
| 2 | 19.298 | 838.0 | 0.7396 |
| 3 | 25.229 | 884.0 | 0.7213 |
| 4 | 27.828 | 942.7 | 0.6731 |
| 5 | 28.645 | 991.8 | 0.6189 |
| 6 | 28.853 | 1034.0 | 0.5686 |
| 7 | 28.931 | 1068.1 | 0.5248 |
| 8 | 29.087 | 1098.4 | 0.4859 |
| 9 | 29.984 | 1119.0 | 0.4501 |
| 10 | 30.946 | 1113.8 | 0.4191 |
| 11 | 31.119 | 1108.6 | 0.3893 |
| 12 | 31.016 | 1103.5 | 0.3633 |
| 13 | 31.057 | 1093.3 | 0.3414 |
| 14 | 30.801 | 1093.3 | 0.3216 |
| 15 | 30.388 | 1093.3 | 0.3042 |
| 16 | 29.909 | 1088.2 | 0.2891 |
| 17 | 29.089 | 1073.1 | 0.2756 |
| 18 | 27.820 | 1043.6 | 0.2641 |
| 19 | 26.666 | 1015.0 | 0.2538 |
| 20 | 25.351 | 978.1 | 0.2446 |
| 21 | 23.666 | 925.5 | 0.2373 |
| 22 | 20.607 | 867.9 | 0.2304 |
| 23 | 16.489 | 803.0 | 0.2240 |
| 24 | 6.815 | 663.1 | 0.2203 |
| 25 | 3.904 | 618.9 | 0.2186 |

Table 4-70. LS1 Burnup and TH Feedback Parameters Assembly D17

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.710 | 667.8 | 0.7396 | 2.917 | 685.7 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.181 | 1033.5 | 0.7396 | 10.526 | 1128.8 | 0.7396 |
| 3 | 0.000 | | 0.7111 | 8.222 | 1144.8 | 0.7111 | 13.851 | 1247.4 | 0.7054 |
| 4 | 0.000 | Data | 0.6480 | 9.062 | 1232.0 | 0.6480 | 15.032 | 1309.5 | 0.6379 |
| 5 | 0.000 | Not | 0.5758 | 9.092 | 1235.2 | 0.5758 | 14.979 | 1294.1 | 0.5637 |
| 6 | 0.000 | Required | 0.5107 | 8.857 | 1210.1 | 0.5107 | 14.585 | 1265.1 | 0.4987 |
| 7 | 0.000 | | 0.4582 | 8.626 | 1185.9 | 0.4582 | 14.216 | 1240.5 | 0.4468 |
| 8 | 0.000 | | 0.4160 | 8.494 | 1172.3 | 0.4160 | 13.991 | 1224.1 | 0.4054 |
| 9 | 0.000 | | 0.3805 | 8.680 | 1191.5 | 0.3805 | 14.209 | 1229.7 | 0.3708 |
| 10 | 0.000 | | 0.3503 | 8.569 | 1180.0 | 0.3503 | 14.043 | 1220.1 | 0.3413 |
| 11 | 0.000 | | 0.3249 | 8.401 | 1162.8 | 0.3249 | 13.818 | 1210.2 | 0.3164 |
| 12 | 0.000 | | 0.3033 | 8.208 | 1143.4 | 0.3033 | 13.570 | 1200.7 | 0.2951 |
| 13 | 0.000 | | 0.2846 | 8.004 | 1123.2 | 0.2846 | 13.310 | 1191.1 | 0.2768 |
| 14 | 0.000 | | 0.2685 | 7.788 | 1102.3 | 0.2685 | 13.037 | 1181.5 | 0.2607 |
| 15 | 0.000 | | 0.2544 | 7.558 | 1080.4 | 0.2544 | 12.741 | 1170.4 | 0.2465 |
| 16 | 0.000 | | 0.2420 | 7.307 | 1057.1 | 0.2420 | 12.407 | 1156.6 | 0.2340 |
| 17 | 0.000 | | 0.2311 | 7.007 | 1029.9 | 0.2311 | 11.986 | 1136.8 | 0.2229 |
| 18 | 0.000 | | 0.2214 | 6.502 | 985.8 | 0.2214 | 11.258 | 1101.2 | 0.2131 |
| 19 | 0.000 | | 0.2132 | 6.204 | 960.7 | 0.2132 | 10.750 | 1068.8 | 0.2046 |
| 20 | 0.000 | | 0.2058 | 5.899 | 935.8 | 0.2058 | 10.183 | 1029.7 | 0.1972 |
| 21 | 0.000 | | 0.1992 | 5.519 | 905.7 | 0.1992 | 9.447 | 979.1 | 0.1907 |
| 22 | 0.000 | | 0.1936 | 4.757 | 848.4 | 0.1936 | 8.115 | 903.5 | 0.1851 |
| 23 | 0.000 | | 0.1891 | 3.837 | 784.3 | 0.1891 | 6.512 | 821.1 | 0.1807 |
| 24 | 0.000 | | 0.1861 | 1.528 | 643.9 | 0.1861 | 2.643 | 660.4 | 0.1776 |
| 25 | 0.000 | | 0.1849 | 0.905 | 610.1 | 0.1849 | 1.550 | 618.1 | 0.1766 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.336 | 649.8 | 0.7396 | 4.945 | 624.7 | 0.7396 | 5.696 | 607.6 | 0.7396 |
| 2 | 15.666 | 942.1 | 0.7396 | 17.746 | 804.7 | 0.7396 | 20.161 | 723.5 | 0.7396 |
| 3 | 20.438 | 1001.6 | 0.7115 | 23.082 | 834.6 | 0.7149 | 26.024 | 734.0 | 0.7189 |
| 4 | 22.299 | 1063.4 | 0.6511 | 25.276 | 876.8 | 0.6590 | 28.480 | 751.3 | 0.6681 |
| 5 | 22.552 | 1092.5 | 0.5831 | 25.773 | 909.1 | 0.5959 | 29.200 | 766.3 | 0.6110 |
| 6 | 22.280 | 1104.4 | 0.5211 | 25.690 | 935.0 | 0.5375 | 29.359 | 782.9 | 0.5584 |
| 7 | 21.930 | 1106.2 | 0.4693 | 25.476 | 954.1 | 0.4876 | 29.404 | 801.2 | 0.5135 |
| 8 | 21.673 | 1103.1 | 0.4267 | 25.316 | 968.0 | 0.4453 | 29.509 | 820.2 | 0.4750 |
| 9 | 21.904 | 1104.4 | 0.3907 | 25.655 | 983.7 | 0.4087 | 30.150 | 842.6 | 0.4407 |
| 10 | 21.633 | 1094.2 | 0.3601 | 25.430 | 990.5 | 0.3773 | 30.167 | 860.9 | 0.4110 |
| 11 | 21.263 | 1080.2 | 0.3341 | 25.094 | 995.5 | 0.3506 | 30.051 | 878.0 | 0.3850 |
| 12 | 20.836 | 1063.3 | 0.3118 | 24.697 | 1000.0 | 0.3276 | 29.877 | 895.6 | 0.3623 |
| 13 | 20.372 | 1044.3 | 0.2925 | 24.256 | 1003.4 | 0.3077 | 29.715 | 918.3 | 0.3427 |
| 14 | 19.869 | 1023.4 | 0.2757 | 23.761 | 1004.6 | 0.2902 | 29.432 | 935.9 | 0.3246 |
| 15 | 19.315 | 1000.4 | 0.2610 | 23.189 | 1001.9 | 0.2748 | 29.037 | 950.8 | 0.3084 |
| 16 | 18.686 | 974.8 | 0.2480 | 22.509 | 994.3 | 0.2612 | 28.515 | 964.4 | 0.2939 |
| 17 | 17.933 | 946.9 | 0.2366 | 21.667 | 981.2 | 0.2491 | 27.800 | 975.5 | 0.2811 |
| 18 | 16.851 | 918.0 | 0.2269 | 20.466 | 963.9 | 0.2389 | 26.681 | 982.7 | 0.2702 |
| 19 | 15.991 | 890.3 | 0.2188 | 19.435 | 939.7 | 0.2301 | 25.615 | 979.6 | 0.2601 |
| 20 | 14.992 | 857.4 | 0.2111 | 18.218 | 909.7 | 0.2218 | 24.225 | 964.5 | 0.2506 |
| 21 | 13.685 | 816.0 | 0.2041 | 16.584 | 866.7 | 0.2143 | 22.153 | 927.3 | 0.2416 |
| 22 | 11.655 | 768.1 | 0.1982 | 14.150 | 816.5 | 0.2081 | 19.088 | 876.5 | 0.2346 |
| 23 | 9.222 | 714.9 | 0.1933 | 11.186 | 755.0 | 0.2030 | 15.167 | 804.9 | 0.2287 |
| 24 | 3.717 | 620.0 | 0.1901 | 4.506 | 634.8 | 0.1996 | 6.142 | 653.6 | 0.2250 |
| 25 | 2.131 | 593.5 | 0.1882 | 2.553 | 600.8 | 0.1972 | 3.413 | 609.6 | 0.2212 |

Table 4-70. LS1 Burnup and TH Feedback Parameters Assembly D17 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.720 | 639.5 | 0.7396 |
| 2 | 20.237 | 842.3 | 0.7396 |
| 3 | 26.121 | 879.9 | 0.7191 |
| 4 | 28.587 | 921.2 | 0.6683 |
| 5 | 29.314 | 951.4 | 0.6112 |
| 6 | 29.477 | 969.1 | 0.5587 |
| 7 | 29.526 | 987.2 | 0.5138 |
| 8 | 29.633 | 996.4 | 0.4752 |
| 9 | 30.277 | 1010.3 | 0.4409 |
| 10 | 30.295 | 1015.0 | 0.4112 |
| 11 | 30.180 | 1019.7 | 0.3852 |
| 12 | 30.006 | 1019.7 | 0.3625 |
| 13 | 29.842 | 1010.3 | 0.3428 |
| 14 | 29.557 | 1001.0 | 0.3248 |
| 15 | 29.160 | 991.8 | 0.3085 |
| 16 | 28.633 | 969.1 | 0.2940 |
| 17 | 27.912 | 942.7 | 0.2811 |
| 18 | 26.787 | 917.0 | 0.2703 |
| 19 | 25.713 | 884.0 | 0.2602 |
| 20 | 24.316 | 856.1 | 0.2506 |
| 21 | 22.235 | 821.6 | 0.2417 |
| 22 | 19.160 | 784.9 | 0.2347 |
| 23 | 15.225 | 736.4 | 0.2287 |
| 24 | 6.166 | 630.4 | 0.2251 |
| 25 | 3.427 | 601.8 | 0.2213 |

Table 4-71. LS1 Burnup and TH Feedback Parameters Assembly D18

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|-----------------------------------|---------------------------------|--------------------------------------------------|-----------------------------------|---------------------------------|--------------------------------------------------|----------------------------------|--------------------------------|-------------------------------------------------|
| | Burnup (GWd/MTU) 0.00 Cy 6 | Fuel Temp. (K) 0.00 Cy 6 | Mod. Dens. (g/cm ³) 0.00 Cy 6 | Burnup (GWd/MTU) 196.1 Cy 6 | Fuel Temp. (K) 196.1 Cy 6 | Mod. Dens. (g/cm ³) 196.1 Cy 6 | Burnup (GWd/MTU) 0.00 Cy 7 | Fuel Temp. (K) 0.00 Cy 7 | Mod. Dens. (g/cm ³) 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.592 | 659.9 | 0.7396 | 2.828 | 688.9 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.768 | 993.4 | 0.7396 | 10.201 | 1144.3 | 0.7396 |
| 3 | 0.000 | | 0.7170 | 7.670 | 1091.0 | 0.7170 | 13.407 | 1266.8 | 0.7078 |
| 4 | 0.000 | Data | 0.6611 | 8.467 | 1169.6 | 0.6611 | 14.518 | 1324.6 | 0.6438 |
| 5 | 0.000 | Not | 0.5950 | 8.517 | 1174.7 | 0.5950 | 14.435 | 1299.8 | 0.5733 |
| 6 | 0.000 | Required | 0.5328 | 8.314 | 1154.0 | 0.5328 | 14.025 | 1262.1 | 0.5103 |
| 7 | 0.000 | | 0.4804 | 8.106 | 1133.3 | 0.4804 | 13.646 | 1231.6 | 0.4591 |
| 8 | 0.000 | | 0.4375 | 8.000 | 1122.8 | 0.4375 | 13.429 | 1212.3 | 0.4177 |
| 9 | 0.000 | | 0.4013 | 8.196 | 1142.2 | 0.4013 | 13.658 | 1218.0 | 0.3829 |
| 10 | 0.000 | | 0.3702 | 8.103 | 1133.0 | 0.3702 | 13.503 | 1207.3 | 0.3531 |
| 11 | 0.000 | | 0.3438 | 7.943 | 1117.3 | 0.3438 | 13.281 | 1196.6 | 0.3278 |
| 12 | 0.000 | | 0.3214 | 7.756 | 1099.2 | 0.3214 | 13.032 | 1186.1 | 0.3061 |
| 13 | 0.000 | | 0.3021 | 7.558 | 1080.4 | 0.3021 | 12.773 | 1175.8 | 0.2872 |
| 14 | 0.000 | | 0.2853 | 7.353 | 1061.3 | 0.2853 | 12.505 | 1165.2 | 0.2709 |
| 15 | 0.000 | | 0.2706 | 7.142 | 1042.0 | 0.2706 | 12.223 | 1153.5 | 0.2564 |
| 16 | 0.000 | | 0.2577 | 6.921 | 1022.2 | 0.2577 | 11.915 | 1139.2 | 0.2436 |
| 17 | 0.000 | | 0.2462 | 6.677 | 1000.8 | 0.2462 | 11.544 | 1118.8 | 0.2323 |
| 18 | 0.000 | | 0.2362 | 6.258 | 965.2 | 0.2362 | 10.892 | 1082.2 | 0.2222 |
| 19 | 0.000 | | 0.2274 | 6.054 | 948.4 | 0.2274 | 10.471 | 1049.3 | 0.2137 |
| 20 | 0.000 | | 0.2195 | 5.826 | 929.9 | 0.2195 | 9.976 | 1010.3 | 0.2061 |
| 21 | 0.000 | | 0.2124 | 5.493 | 903.7 | 0.2124 | 9.289 | 961.0 | 0.1994 |
| 22 | 0.000 | | 0.2062 | 4.750 | 847.9 | 0.2062 | 7.988 | 888.4 | 0.1937 |
| 23 | 0.000 | | 0.2012 | 3.825 | 783.5 | 0.2012 | 6.398 | 809.5 | 0.1891 |
| 24 | 0.000 | | 0.1979 | 1.512 | 643.0 | 0.1979 | 2.578 | 655.9 | 0.1857 |
| 25 | 0.000 | | 0.1967 | 0.887 | 609.2 | 0.1967 | 1.501 | 615.4 | 0.1847 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) 193.2 Cy 7 | Fuel Temp. (K) 193.2 Cy 7 | Mod. Dens. (g/cm ³) 193.2 Cy 7 | Burnup (GWd/MTU) 306.8 Cy 7 | Fuel Temp. (K) 306.8 Cy 7 | Mod. Dens. (g/cm ³) 306.8 Cy 7 | Burnup (GWd/MTU) 0.00 Cy 8 | Fuel Temp. (K) 0.00 Cy 8 | Mod. Dens. (g/cm ³) 0.00 Cy 8 |
| 1 | 3.930 | 628.9 | 0.7396 | 4.433 | 613.1 | 0.7396 | 5.160 | 606.1 | 0.7396 |
| 2 | 14.214 | 843.3 | 0.7396 | 15.963 | 760.8 | 0.7396 | 18.346 | 721.1 | 0.7396 |
| 3 | 18.586 | 885.5 | 0.7163 | 20.814 | 785.0 | 0.7197 | 23.712 | 731.2 | 0.7236 |
| 4 | 20.312 | 934.3 | 0.6625 | 22.821 | 818.2 | 0.6702 | 25.955 | 746.7 | 0.6790 |
| 5 | 20.598 | 965.0 | 0.6019 | 23.305 | 842.4 | 0.6144 | 26.807 | 757.9 | 0.6287 |
| 6 | 20.429 | 985.6 | 0.5455 | 23.287 | 861.5 | 0.5619 | 26.767 | 769.9 | 0.5814 |
| 7 | 20.209 | 999.4 | 0.4965 | 23.178 | 875.7 | 0.5154 | 26.852 | 783.3 | 0.5394 |
| 8 | 20.111 | 1010.0 | 0.4544 | 23.158 | 885.9 | 0.4744 | 27.033 | 797.4 | 0.5019 |
| 9 | 20.510 | 1025.2 | 0.4174 | 23.641 | 897.0 | 0.4374 | 27.758 | 814.7 | 0.4673 |
| 10 | 20.419 | 1031.0 | 0.3857 | 23.579 | 900.9 | 0.4054 | 27.887 | 828.7 | 0.4369 |
| 11 | 20.211 | 1032.2 | 0.3585 | 23.388 | 903.1 | 0.3777 | 27.881 | 842.4 | 0.4101 |
| 12 | 19.924 | 1028.8 | 0.3350 | 23.113 | 904.8 | 0.3535 | 27.789 | 856.3 | 0.3864 |
| 13 | 19.579 | 1021.0 | 0.3145 | 22.782 | 906.6 | 0.3326 | 27.638 | 870.1 | 0.3653 |
| 14 | 19.184 | 1009.7 | 0.2966 | 22.401 | 908.5 | 0.3142 | 27.435 | 884.0 | 0.3466 |
| 15 | 18.732 | 994.7 | 0.2807 | 21.960 | 910.0 | 0.2979 | 27.167 | 897.8 | 0.3299 |
| 16 | 18.210 | 976.2 | 0.2666 | 21.434 | 909.5 | 0.2834 | 26.806 | 911.1 | 0.3149 |
| 17 | 17.579 | 954.2 | 0.2542 | 20.779 | 906.2 | 0.2706 | 26.292 | 922.7 | 0.3016 |
| 18 | 16.623 | 929.2 | 0.2435 | 19.781 | 900.6 | 0.2596 | 25.403 | 931.8 | 0.2901 |
| 19 | 15.850 | 901.1 | 0.2338 | 18.930 | 890.2 | 0.2495 | 24.564 | 932.8 | 0.2791 |
| 20 | 14.950 | 869.8 | 0.2252 | 17.914 | 875.1 | 0.2405 | 23.434 | 923.3 | 0.2689 |
| 21 | 13.720 | 829.8 | 0.2176 | 16.459 | 846.4 | 0.2323 | 21.623 | 894.4 | 0.2594 |
| 22 | 11.730 | 781.7 | 0.2113 | 14.150 | 807.5 | 0.2259 | 18.776 | 852.5 | 0.2522 |
| 23 | 9.283 | 725.8 | 0.2061 | 11.222 | 752.3 | 0.2204 | 14.985 | 789.5 | 0.2460 |
| 24 | 3.716 | 623.5 | 0.2026 | 4.492 | 633.5 | 0.2166 | 6.036 | 648.2 | 0.2421 |
| 25 | 2.110 | 595.0 | 0.2004 | 2.517 | 599.5 | 0.2136 | 3.327 | 606.8 | 0.2379 |

Table 4-71. LS1 Burnup and TH Feedback Parameters Assembly D18 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.183 | 636.1 | 0.7396 |
| 2 | 18.424 | 851.1 | 0.7396 |
| 3 | 23.810 | 884.0 | 0.7237 |
| 4 | 26.064 | 929.7 | 0.6791 |
| 5 | 26.723 | 960.2 | 0.6289 |
| 6 | 26.888 | 982.6 | 0.5816 |
| 7 | 26.975 | 991.8 | 0.5396 |
| 8 | 27.159 | 1005.6 | 0.5020 |
| 9 | 27.887 | 1019.7 | 0.4674 |
| 10 | 28.017 | 1024.4 | 0.4369 |
| 11 | 28.012 | 1029.2 | 0.4101 |
| 12 | 27.920 | 1029.2 | 0.3864 |
| 13 | 27.769 | 1029.2 | 0.3653 |
| 14 | 27.565 | 1024.4 | 0.3466 |
| 15 | 27.294 | 1010.3 | 0.3299 |
| 16 | 26.929 | 991.8 | 0.3149 |
| 17 | 26.409 | 964.7 | 0.3015 |
| 18 | 25.513 | 934.0 | 0.2900 |
| 19 | 24.666 | 900.3 | 0.2790 |
| 20 | 23.529 | 871.9 | 0.2689 |
| 21 | 21.707 | 829.1 | 0.2594 |
| 22 | 18.849 | 788.5 | 0.2522 |
| 23 | 15.045 | 743.2 | 0.2460 |
| 24 | 6.062 | 636.2 | 0.2421 |
| 25 | 3.341 | 601.8 | 0.2379 |

Table 4-72. LS1 Burnup and TH Feedback Parameters Assembly D19

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.639 | 663.0 | 0.7396 | 2.829 | 683.8 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.959 | 1011.8 | 0.7396 | 10.289 | 1126.2 | 0.7396 |
| 3 | 0.000 | | 0.7154 | 7.962 | 1119.1 | 0.7154 | 13.633 | 1254.9 | 0.7087 |
| 4 | 0.000 | Data | 0.6572 | 8.778 | 1201.8 | 0.6572 | 14.787 | 1316.8 | 0.6444 |
| 5 | 0.000 | Not | 0.5889 | 8.759 | 1199.8 | 0.5889 | 14.619 | 1289.2 | 0.5729 |
| 6 | 0.000 | Required | 0.5258 | 8.458 | 1168.7 | 0.5258 | 14.072 | 1244.7 | 0.5096 |
| 7 | 0.000 | | 0.4738 | 8.167 | 1139.3 | 0.4738 | 13.569 | 1207.6 | 0.4586 |
| 8 | 0.000 | | 0.4317 | 8.004 | 1123.2 | 0.4317 | 13.263 | 1183.2 | 0.4177 |
| 9 | 0.000 | | 0.3964 | 8.165 | 1139.1 | 0.3964 | 13.434 | 1184.9 | 0.3835 |
| 10 | 0.000 | | 0.3662 | 8.044 | 1127.2 | 0.3662 | 13.234 | 1171.6 | 0.3542 |
| 11 | 0.000 | | 0.3406 | 7.859 | 1109.1 | 0.3406 | 12.967 | 1157.9 | 0.3294 |
| 12 | 0.000 | | 0.3188 | 7.651 | 1089.2 | 0.3188 | 12.679 | 1144.8 | 0.3082 |
| 13 | 0.000 | | 0.3000 | 7.436 | 1069.0 | 0.3000 | 12.385 | 1131.9 | 0.2898 |
| 14 | 0.000 | | 0.2838 | 7.217 | 1048.8 | 0.2838 | 12.085 | 1118.9 | 0.2738 |
| 15 | 0.000 | | 0.2696 | 6.987 | 1028.1 | 0.2696 | 11.767 | 1105.0 | 0.2597 |
| 16 | 0.000 | | 0.2570 | 6.734 | 1005.8 | 0.2570 | 11.405 | 1087.9 | 0.2472 |
| 17 | 0.000 | | 0.2460 | 6.420 | 978.8 | 0.2460 | 10.937 | 1064.4 | 0.2362 |
| 18 | 0.000 | | 0.2364 | 5.895 | 935.5 | 0.2364 | 10.147 | 1025.0 | 0.2265 |
| 19 | 0.000 | | 0.2281 | 5.572 | 909.8 | 0.2281 | 9.593 | 992.0 | 0.2182 |
| 20 | 0.000 | | 0.2208 | 5.262 | 885.9 | 0.2208 | 9.025 | 956.5 | 0.2109 |
| 21 | 0.000 | | 0.2143 | 4.909 | 859.5 | 0.2143 | 8.349 | 914.0 | 0.2046 |
| 22 | 0.000 | | 0.2087 | 4.220 | 810.3 | 0.2087 | 7.142 | 849.9 | 0.1991 |
| 23 | 0.000 | | 0.2043 | 3.395 | 755.3 | 0.2043 | 5.711 | 780.9 | 0.1949 |
| 24 | 0.000 | | 0.2012 | 1.342 | 633.6 | 0.2012 | 2.295 | 645.6 | 0.1918 |
| 25 | 0.000 | | 0.2002 | 0.790 | 604.0 | 0.2002 | 1.337 | 609.6 | 0.1908 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.335 | 655.7 | 0.7396 | 4.966 | 627.1 | 0.7396 | 5.818 | 614.2 | 0.7396 |
| 2 | 15.749 | 972.0 | 0.7396 | 17.920 | 817.1 | 0.7396 | 20.669 | 748.8 | 0.7396 |
| 3 | 20.653 | 1040.5 | 0.7130 | 23.445 | 853.1 | 0.7161 | 26.809 | 762.0 | 0.7201 |
| 4 | 22.539 | 1110.0 | 0.6537 | 25.699 | 900.9 | 0.6610 | 29.365 | 782.7 | 0.6701 |
| 5 | 22.679 | 1140.7 | 0.5861 | 26.096 | 935.9 | 0.5980 | 30.002 | 799.6 | 0.6130 |
| 6 | 22.228 | 1150.4 | 0.5240 | 25.829 | 961.9 | 0.5391 | 29.984 | 817.5 | 0.5598 |
| 7 | 21.715 | 1149.4 | 0.4720 | 25.440 | 979.9 | 0.4887 | 29.853 | 836.4 | 0.5138 |
| 8 | 21.355 | 1143.9 | 0.4294 | 25.166 | 992.6 | 0.4461 | 29.832 | 855.5 | 0.4744 |
| 9 | 21.526 | 1143.9 | 0.3935 | 25.442 | 1008.3 | 0.4095 | 30.399 | 878.0 | 0.4396 |
| 10 | 21.199 | 1131.1 | 0.3632 | 25.162 | 1015.4 | 0.3784 | 30.341 | 895.6 | 0.4093 |
| 11 | 20.762 | 1114.2 | 0.3374 | 24.768 | 1021.9 | 0.3518 | 30.149 | 911.9 | 0.3830 |
| 12 | 20.270 | 1094.3 | 0.3154 | 24.324 | 1029.3 | 0.3291 | 29.893 | 927.3 | 0.3599 |
| 13 | 19.746 | 1072.3 | 0.2964 | 23.843 | 1036.0 | 0.3095 | 29.595 | 942.7 | 0.3397 |
| 14 | 19.189 | 1048.2 | 0.2800 | 23.304 | 1038.8 | 0.2922 | 29.235 | 957.9 | 0.3217 |
| 15 | 18.582 | 1021.8 | 0.2656 | 22.673 | 1035.0 | 0.2770 | 28.777 | 972.9 | 0.3058 |
| 16 | 17.891 | 992.7 | 0.2529 | 21.908 | 1023.6 | 0.2636 | 28.171 | 987.0 | 0.2917 |
| 17 | 17.046 | 960.4 | 0.2417 | 20.942 | 1005.2 | 0.2518 | 27.331 | 998.2 | 0.2792 |
| 18 | 15.837 | 925.9 | 0.2321 | 19.579 | 982.4 | 0.2416 | 26.044 | 1005.1 | 0.2685 |
| 19 | 14.839 | 890.7 | 0.2237 | 18.378 | 953.1 | 0.2326 | 24.794 | 1000.6 | 0.2586 |
| 20 | 13.800 | 854.9 | 0.2164 | 17.096 | 919.2 | 0.2247 | 23.311 | 982.7 | 0.2493 |
| 21 | 12.553 | 813.6 | 0.2100 | 15.499 | 872.8 | 0.2177 | 21.233 | 941.2 | 0.2409 |
| 22 | 10.637 | 765.1 | 0.2046 | 13.158 | 819.6 | 0.2120 | 18.213 | 885.7 | 0.2342 |
| 23 | 8.384 | 712.6 | 0.2003 | 10.359 | 756.3 | 0.2074 | 14.420 | 810.7 | 0.2287 |
| 24 | 3.361 | 619.6 | 0.1974 | 4.152 | 635.0 | 0.2043 | 5.815 | 655.1 | 0.2254 |
| 25 | 1.922 | 593.7 | 0.1961 | 2.349 | 601.3 | 0.2027 | 3.235 | 611.0 | 0.2226 |

Table 4-72. LS1 Burnup and TH Feedback Parameters Assembly D19 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.838 | 625.7 | 0.7396 |
| 2 | 20.732 | 787.1 | 0.7396 |
| 3 | 26.888 | 810.4 | 0.7202 |
| 4 | 29.451 | 836.7 | 0.6702 |
| 5 | 30.095 | 863.9 | 0.6133 |
| 6 | 30.082 | 884.0 | 0.5601 |
| 7 | 29.955 | 900.3 | 0.5143 |
| 8 | 29.938 | 917.0 | 0.4748 |
| 9 | 30.508 | 929.7 | 0.4399 |
| 10 | 30.451 | 934.0 | 0.4097 |
| 11 | 30.259 | 934.0 | 0.3833 |
| 12 | 30.003 | 934.0 | 0.3603 |
| 13 | 29.703 | 925.5 | 0.3400 |
| 14 | 29.342 | 921.2 | 0.3220 |
| 15 | 28.881 | 908.6 | 0.3061 |
| 16 | 28.272 | 896.2 | 0.2919 |
| 17 | 27.428 | 879.9 | 0.2794 |
| 18 | 26.136 | 860.0 | 0.2687 |
| 19 | 24.882 | 844.4 | 0.2588 |
| 20 | 23.393 | 821.6 | 0.2496 |
| 21 | 21.308 | 795.8 | 0.2411 |
| 22 | 18.279 | 763.8 | 0.2344 |
| 23 | 14.472 | 716.6 | 0.2289 |
| 24 | 5.837 | 624.6 | 0.2255 |
| 25 | 3.247 | 596.2 | 0.2228 |

Table 4-73. LS1 Burnup and TH Feedback Parameters Assembly D20

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.506 | 654.2 | 0.7396 | 2.557 | 668.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.520 | 970.0 | 0.7396 | 9.384 | 1047.2 | 0.7396 |
| 3 | 0.000 | | 0.7217 | 7.448 | 1070.1 | 0.7217 | 12.632 | 1170.6 | 0.7172 |
| 4 | 0.000 | Data | 0.6705 | 8.276 | 1150.2 | 0.6705 | 13.851 | 1237.8 | 0.6613 |
| 5 | 0.000 | Not | 0.6076 | 8.286 | 1151.2 | 0.6076 | 13.745 | 1217.5 | 0.5955 |
| 6 | 0.000 | Required | 0.5470 | 8.000 | 1122.8 | 0.5470 | 13.218 | 1176.3 | 0.5341 |
| 7 | 0.000 | | 0.4952 | 7.712 | 1095.0 | 0.4952 | 12.719 | 1141.3 | 0.4830 |
| 8 | 0.000 | | 0.4526 | 7.547 | 1079.4 | 0.4526 | 12.416 | 1119.1 | 0.4414 |
| 9 | 0.000 | | 0.4167 | 7.695 | 1093.4 | 0.4167 | 12.587 | 1122.8 | 0.4064 |
| 10 | 0.000 | | 0.3859 | 7.573 | 1081.8 | 0.3859 | 12.388 | 1110.5 | 0.3764 |
| 11 | 0.000 | | 0.3597 | 7.393 | 1065.0 | 0.3597 | 12.124 | 1097.3 | 0.3508 |
| 12 | 0.000 | | 0.3372 | 7.195 | 1046.8 | 0.3372 | 11.844 | 1084.5 | 0.3289 |
| 13 | 0.000 | | 0.3180 | 6.994 | 1028.7 | 0.3180 | 11.564 | 1072.4 | 0.3099 |
| 14 | 0.000 | | 0.3012 | 6.789 | 1010.6 | 0.3012 | 11.280 | 1060.4 | 0.2933 |
| 15 | 0.000 | | 0.2865 | 6.576 | 992.1 | 0.2865 | 10.981 | 1047.5 | 0.2786 |
| 16 | 0.000 | | 0.2735 | 6.339 | 972.0 | 0.2735 | 10.640 | 1032.2 | 0.2657 |
| 17 | 0.000 | | 0.2620 | 6.041 | 947.3 | 0.2620 | 10.195 | 1010.9 | 0.2541 |
| 18 | 0.000 | | 0.2520 | 5.532 | 906.7 | 0.2520 | 9.431 | 975.1 | 0.2441 |
| 19 | 0.000 | | 0.2434 | 5.218 | 882.6 | 0.2434 | 8.907 | 946.6 | 0.2354 |
| 20 | 0.000 | | 0.2358 | 4.918 | 860.2 | 0.2358 | 8.378 | 916.5 | 0.2278 |
| 21 | 0.000 | | 0.2291 | 4.584 | 835.9 | 0.2291 | 7.762 | 881.0 | 0.2211 |
| 22 | 0.000 | | 0.2233 | 3.935 | 790.9 | 0.2233 | 6.643 | 824.9 | 0.2154 |
| 23 | 0.000 | | 0.2187 | 3.166 | 740.7 | 0.2187 | 5.318 | 763.3 | 0.2109 |
| 24 | 0.000 | | 0.2157 | 1.253 | 628.8 | 0.2157 | 2.136 | 639.2 | 0.2078 |
| 25 | 0.000 | | 0.2145 | 0.735 | 601.1 | 0.2145 | 1.239 | 605.8 | 0.2067 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.916 | 645.8 | 0.7396 | 4.652 | 638.8 | 0.7396 | 5.960 | 644.6 | 0.7396 |
| 2 | 14.409 | 931.6 | 0.7396 | 17.025 | 880.5 | 0.7396 | 21.268 | 871.8 | 0.7396 |
| 3 | 19.262 | 1005.4 | 0.7200 | 22.699 | 938.7 | 0.7219 | 27.857 | 893.9 | 0.7240 |
| 4 | 21.320 | 1082.5 | 0.6674 | 25.225 | 1006.6 | 0.6717 | 30.701 | 919.7 | 0.6767 |
| 5 | 21.604 | 1120.5 | 0.6041 | 25.747 | 1043.1 | 0.6107 | 31.371 | 931.9 | 0.6194 |
| 6 | 21.232 | 1136.0 | 0.5430 | 25.464 | 1057.2 | 0.5507 | 31.220 | 943.0 | 0.5628 |
| 7 | 20.795 | 1142.3 | 0.4901 | 25.033 | 1058.1 | 0.4979 | 30.928 | 954.9 | 0.5123 |
| 8 | 20.569 | 1150.1 | 0.4463 | 24.788 | 1055.1 | 0.4534 | 30.824 | 967.0 | 0.4692 |
| 9 | 20.949 | 1171.6 | 0.4092 | 25.184 | 1057.6 | 0.4158 | 31.405 | 983.2 | 0.4318 |
| 10 | 20.836 | 1180.6 | 0.3774 | 25.024 | 1050.2 | 0.3836 | 31.362 | 993.6 | 0.3996 |
| 11 | 20.574 | 1180.8 | 0.3502 | 24.710 | 1042.0 | 0.3561 | 31.177 | 1005.3 | 0.3718 |
| 12 | 20.201 | 1171.1 | 0.3268 | 24.295 | 1035.5 | 0.3325 | 30.902 | 1018.0 | 0.3478 |
| 13 | 19.758 | 1154.3 | 0.3068 | 23.830 | 1032.1 | 0.3122 | 30.585 | 1031.7 | 0.3270 |
| 14 | 19.257 | 1132.3 | 0.2893 | 23.326 | 1031.6 | 0.2945 | 30.229 | 1045.6 | 0.3087 |
| 15 | 18.680 | 1104.8 | 0.2742 | 22.753 | 1032.3 | 0.2792 | 29.800 | 1059.3 | 0.2926 |
| 16 | 17.993 | 1071.5 | 0.2609 | 22.048 | 1029.5 | 0.2656 | 29.225 | 1071.8 | 0.2782 |
| 17 | 17.124 | 1032.2 | 0.2493 | 21.104 | 1018.0 | 0.2536 | 28.384 | 1081.9 | 0.2656 |
| 18 | 15.874 | 989.0 | 0.2391 | 19.731 | 999.4 | 0.2432 | 27.073 | 1088.0 | 0.2544 |
| 19 | 14.854 | 946.9 | 0.2304 | 18.542 | 974.5 | 0.2341 | 25.808 | 1080.5 | 0.2443 |
| 20 | 13.827 | 906.6 | 0.2229 | 17.329 | 947.8 | 0.2261 | 24.348 | 1056.6 | 0.2353 |
| 21 | 12.604 | 859.9 | 0.2164 | 15.810 | 907.0 | 0.2192 | 22.265 | 1004.2 | 0.2272 |
| 22 | 10.706 | 803.7 | 0.2109 | 13.513 | 855.0 | 0.2134 | 19.189 | 936.3 | 0.2205 |
| 23 | 8.462 | 742.2 | 0.2066 | 10.706 | 786.8 | 0.2088 | 15.292 | 849.4 | 0.2152 |
| 24 | 3.410 | 631.0 | 0.2036 | 4.334 | 647.6 | 0.2059 | 6.278 | 671.8 | 0.2119 |
| 25 | 1.951 | 600.5 | 0.2027 | 2.464 | 609.1 | 0.2048 | 3.543 | 621.7 | 0.2104 |

Table 4-73. LS1 Burnup and TH Feedback Parameters Assembly D20 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.981 | 629.2 | 0.7396 |
| 2 | 21.335 | 803.7 | 0.7396 |
| 3 | 27.941 | 829.1 | 0.7241 |
| 4 | 30.795 | 867.9 | 0.677 |
| 5 | 31.472 | 896.2 | 0.6197 |
| 6 | 31.326 | 917.0 | 0.5631 |
| 7 | 31.039 | 938.3 | 0.5126 |
| 8 | 30.939 | 955.8 | 0.4695 |
| 9 | 31.523 | 969.1 | 0.4321 |
| 10 | 31.483 | 982.6 | 0.3999 |
| 11 | 31.297 | 978.1 | 0.3721 |
| 12 | 31.022 | 978.1 | 0.3481 |
| 13 | 30.704 | 973.6 | 0.3272 |
| 14 | 30.346 | 964.7 | 0.3090 |
| 15 | 29.913 | 947.0 | 0.2928 |
| 16 | 29.334 | 929.7 | 0.2784 |
| 17 | 28.488 | 908.6 | 0.2657 |
| 18 | 27.171 | 884.0 | 0.2546 |
| 19 | 25.900 | 860.0 | 0.2445 |
| 20 | 24.434 | 836.7 | 0.2354 |
| 21 | 22.342 | 803.0 | 0.2274 |
| 22 | 19.256 | 767.3 | 0.2207 |
| 23 | 15.346 | 723.1 | 0.2154 |
| 24 | 6.301 | 627.5 | 0.2121 |
| 25 | 3.555 | 596.2 | 0.2105 |

Table 4-74. LS1 Burnup and TH Feedback Parameters Assembly D21

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.747 | 670.3 | 0.7396 | 2.881 | 677.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.323 | 1047.7 | 0.7396 | 10.446 | 1090.4 | 0.7396 |
| 3 | 0.000 | | 0.7083 | 8.439 | 1166.7 | 0.7083 | 13.844 | 1208.1 | 0.7059 |
| 4 | 0.000 | Data | 0.6422 | 9.301 | 1258.0 | 0.6422 | 15.086 | 1275.5 | 0.6381 |
| 5 | 0.000 | Not | 0.5677 | 9.310 | 1258.9 | 0.5677 | 15.045 | 1266.4 | 0.5633 |
| 6 | 0.000 | Required | 0.5020 | 9.047 | 1230.4 | 0.5020 | 14.641 | 1241.2 | 0.4980 |
| 7 | 0.000 | | 0.4499 | 8.796 | 1203.7 | 0.4499 | 14.261 | 1218.5 | 0.4461 |
| 8 | 0.000 | | 0.4082 | 8.656 | 1189.0 | 0.4082 | 14.032 | 1203.1 | 0.4047 |
| 9 | 0.000 | | 0.3731 | 8.846 | 1209.0 | 0.3731 | 14.253 | 1208.5 | 0.3700 |
| 10 | 0.000 | | 0.3433 | 8.737 | 1197.5 | 0.3433 | 14.088 | 1198.8 | 0.3406 |
| 11 | 0.000 | | 0.3184 | 8.571 | 1180.2 | 0.3184 | 13.865 | 1189.1 | 0.3158 |
| 12 | 0.000 | | 0.2971 | 8.385 | 1161.2 | 0.2971 | 13.621 | 1179.3 | 0.2946 |
| 13 | 0.000 | | 0.2789 | 8.188 | 1141.4 | 0.2789 | 13.368 | 1169.9 | 0.2763 |
| 14 | 0.000 | | 0.2630 | 7.975 | 1120.4 | 0.2630 | 13.095 | 1159.9 | 0.2604 |
| 15 | 0.000 | | 0.2490 | 7.735 | 1097.2 | 0.2490 | 12.788 | 1148.9 | 0.2462 |
| 16 | 0.000 | | 0.2367 | 7.461 | 1071.3 | 0.2367 | 12.430 | 1135.2 | 0.2338 |
| 17 | 0.000 | | 0.2259 | 7.125 | 1040.5 | 0.2259 | 11.976 | 1116.2 | 0.2228 |
| 18 | 0.000 | | 0.2164 | 6.569 | 991.5 | 0.2164 | 11.216 | 1084.2 | 0.2131 |
| 19 | 0.000 | | 0.2083 | 6.224 | 962.4 | 0.2083 | 10.702 | 1058.5 | 0.2046 |
| 20 | 0.000 | | 0.2011 | 5.886 | 934.7 | 0.2011 | 10.152 | 1027.1 | 0.1971 |
| 21 | 0.000 | | 0.1948 | 5.494 | 903.7 | 0.1948 | 9.446 | 982.4 | 0.1906 |
| 22 | 0.000 | | 0.1893 | 4.734 | 846.7 | 0.1893 | 8.136 | 909.1 | 0.1849 |
| 23 | 0.000 | | 0.1849 | 3.828 | 783.7 | 0.1849 | 6.548 | 826.2 | 0.1804 |
| 24 | 0.000 | | 0.1820 | 1.535 | 644.3 | 0.1820 | 2.672 | 662.4 | 0.1774 |
| 25 | 0.000 | | 0.1809 | 0.913 | 610.6 | 0.1809 | 1.570 | 619.2 | 0.1763 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.623 | 605.9 | 0.7396 | 4.086 | 608.8 | 0.7396 | 5.634 | 661.1 | 0.7396 |
| 2 | 13.232 | 746.5 | 0.7396 | 14.930 | 754.2 | 0.7396 | 19.966 | 944.2 | 0.7396 |
| 3 | 17.645 | 785.7 | 0.7153 | 19.967 | 795.9 | 0.7189 | 26.065 | 972.4 | 0.7194 |
| 4 | 19.590 | 835.0 | 0.6602 | 22.336 | 847.3 | 0.6687 | 28.737 | 999.3 | 0.6701 |
| 5 | 20.076 | 874.2 | 0.6000 | 23.104 | 883.4 | 0.6133 | 29.564 | 1004.6 | 0.6156 |
| 6 | 20.061 | 904.3 | 0.5463 | 23.258 | 905.8 | 0.5625 | 29.757 | 1008.2 | 0.5652 |
| 7 | 19.953 | 926.0 | 0.5008 | 23.241 | 918.2 | 0.5181 | 29.818 | 1015.3 | 0.5207 |
| 8 | 19.919 | 941.9 | 0.4611 | 23.258 | 925.1 | 0.4782 | 29.950 | 1025.9 | 0.4808 |
| 9 | 20.329 | 957.6 | 0.4248 | 23.731 | 933.8 | 0.4411 | 30.632 | 1045.4 | 0.4439 |
| 10 | 20.196 | 960.3 | 0.3929 | 23.605 | 934.8 | 0.4086 | 30.673 | 1061.3 | 0.4114 |
| 11 | 19.913 | 955.3 | 0.3652 | 23.312 | 933.4 | 0.3802 | 30.557 | 1078.5 | 0.3829 |
| 12 | 19.549 | 945.3 | 0.3412 | 22.935 | 931.6 | 0.3556 | 30.358 | 1096.0 | 0.3579 |
| 13 | 19.134 | 932.0 | 0.3203 | 22.528 | 932.7 | 0.3343 | 30.123 | 1113.2 | 0.3361 |
| 14 | 18.671 | 916.7 | 0.3019 | 22.176 | 948.3 | 0.3159 | 29.924 | 1128.8 | 0.3170 |
| 15 | 18.147 | 899.5 | 0.2856 | 22.219 | 1032.1 | 0.3005 | 30.030 | 1135.3 | 0.3007 |
| 16 | 17.564 | 882.0 | 0.2713 | 22.588 | 1191.1 | 0.2872 | 30.373 | 1132.6 | 0.2865 |
| 17 | 16.793 | 858.0 | 0.2583 | 21.935 | 1212.5 | 0.2727 | 29.795 | 1140.4 | 0.2717 |
| 18 | 15.670 | 831.4 | 0.2474 | 20.597 | 1173.8 | 0.2597 | 28.515 | 1146.4 | 0.2584 |
| 19 | 14.840 | 808.9 | 0.2375 | 19.442 | 1117.7 | 0.2481 | 27.270 | 1137.0 | 0.2464 |
| 20 | 14.170 | 800.6 | 0.2300 | 18.384 | 1054.3 | 0.2386 | 25.917 | 1107.0 | 0.2363 |
| 21 | 13.206 | 782.9 | 0.2228 | 16.929 | 979.6 | 0.2301 | 23.847 | 1047.0 | 0.2274 |
| 22 | 11.461 | 754.0 | 0.2171 | 14.631 | 902.2 | 0.2235 | 20.716 | 971.3 | 0.2202 |
| 23 | 9.185 | 710.4 | 0.2117 | 11.691 | 817.8 | 0.2176 | 16.642 | 877.5 | 0.2140 |
| 24 | 3.749 | 620.2 | 0.2085 | 4.784 | 658.4 | 0.2142 | 6.951 | 685.2 | 0.2102 |
| 25 | 2.237 | 598.1 | 0.2086 | 2.807 | 614.3 | 0.2135 | 4.030 | 629.9 | 0.2092 |

Table 4-74. LS1 Burnup and TH Feedback Parameters Assembly D21 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.647 | 602.2 | 0.7396 |
| 2 | 20.010 | 712.0 | 0.7396 |
| 3 | 26.119 | 723.1 | 0.7195 |
| 4 | 28.796 | 739.8 | 0.6703 |
| 5 | 29.629 | 760.3 | 0.6159 |
| 6 | 29.828 | 781.4 | 0.5655 |
| 7 | 29.894 | 799.4 | 0.5212 |
| 8 | 30.030 | 814.1 | 0.4814 |
| 9 | 30.717 | 832.9 | 0.4444 |
| 10 | 30.760 | 840.6 | 0.4120 |
| 11 | 30.645 | 844.4 | 0.3834 |
| 12 | 30.447 | 848.3 | 0.3585 |
| 13 | 30.211 | 844.4 | 0.3366 |
| 14 | 30.010 | 836.7 | 0.3175 |
| 15 | 30.114 | 829.1 | 0.3012 |
| 16 | 30.454 | 817.8 | 0.2869 |
| 17 | 29.874 | 810.4 | 0.2721 |
| 18 | 28.591 | 799.4 | 0.2588 |
| 19 | 27.344 | 792.1 | 0.2467 |
| 20 | 25.986 | 774.3 | 0.2367 |
| 21 | 23.910 | 753.4 | 0.2278 |
| 22 | 20.772 | 729.8 | 0.2206 |
| 23 | 16.686 | 690.9 | 0.2144 |
| 24 | 6.970 | 616.0 | 0.2106 |
| 25 | 4.039 | 587.9 | 0.2095 |

Table 4-75. LS1 Burnup and TH Feedback Parameters Assembly E1

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.558 | 657.5 | 0.7396 | 2.828 | 692.7 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.652 | 982.1 | 0.7396 | 10.227 | 1169.3 | 0.7396 |
| 3 | 0.000 | | 0.7186 | 7.545 | 1078.7 | 0.7186 | 13.477 | 1301.7 | 0.7068 |
| 4 | 0.000 | Data | 0.6646 | 8.343 | 1156.4 | 0.6646 | 14.576 | 1358.4 | 0.6428 |
| 5 | 0.000 | Not | 0.6007 | 8.375 | 1159.7 | 0.6007 | 14.425 | 1323.7 | 0.5731 |
| 6 | 0.000 | Required | 0.5400 | 8.138 | 1135.9 | 0.5400 | 13.933 | 1276.6 | 0.5114 |
| 7 | 0.000 | | 0.4884 | 7.892 | 1111.8 | 0.4884 | 13.474 | 1238.4 | 0.4611 |
| 8 | 0.000 | | 0.4459 | 7.726 | 1095.8 | 0.4459 | 13.157 | 1212.0 | 0.4203 |
| 9 | 0.000 | | 0.4105 | 7.726 | 1095.8 | 0.4105 | 13.112 | 1204.2 | 0.3864 |
| 10 | 0.000 | | 0.3803 | 7.610 | 1084.8 | 0.3803 | 12.909 | 1189.4 | 0.3577 |
| 11 | 0.000 | | 0.3545 | 7.464 | 1071.1 | 0.3545 | 12.683 | 1175.9 | 0.3330 |
| 12 | 0.000 | | 0.3324 | 7.295 | 1055.5 | 0.3324 | 12.438 | 1163.2 | 0.3118 |
| 13 | 0.000 | | 0.3132 | 7.116 | 1039.2 | 0.3132 | 12.183 | 1150.6 | 0.2934 |
| 14 | 0.000 | | 0.2964 | 6.931 | 1022.7 | 0.2964 | 11.920 | 1137.9 | 0.2772 |
| 15 | 0.000 | | 0.2818 | 6.739 | 1005.8 | 0.2818 | 11.639 | 1123.5 | 0.2629 |
| 16 | 0.000 | | 0.2687 | 6.534 | 988.1 | 0.2687 | 11.323 | 1105.9 | 0.2503 |
| 17 | 0.000 | | 0.2573 | 6.288 | 967.4 | 0.2573 | 10.919 | 1081.3 | 0.2391 |
| 18 | 0.000 | | 0.2472 | 5.842 | 930.9 | 0.2472 | 10.200 | 1040.2 | 0.2293 |
| 19 | 0.000 | | 0.2384 | 5.644 | 915.2 | 0.2384 | 9.763 | 1005.5 | 0.2211 |
| 20 | 0.000 | | 0.2306 | 5.453 | 900.3 | 0.2306 | 9.308 | 968.7 | 0.2138 |
| 21 | 0.000 | | 0.2234 | 5.195 | 880.6 | 0.2234 | 8.718 | 924.4 | 0.2074 |
| 22 | 0.000 | | 0.2171 | 4.513 | 830.7 | 0.2171 | 7.514 | 859.1 | 0.2017 |
| 23 | 0.000 | | 0.2120 | 3.646 | 771.4 | 0.2120 | 6.036 | 788.9 | 0.1972 |
| 24 | 0.000 | | 0.2085 | 1.462 | 640.2 | 0.2085 | 2.473 | 650.8 | 0.1936 |
| 25 | 0.000 | | 0.2072 | 0.857 | 607.6 | 0.2072 | 1.443 | 612.9 | 0.1924 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.600 | 607.7 | 0.7396 | 4.069 | 609.4 | 0.7396 | 5.558 | 657.0 | 0.7396 |
| 2 | 13.147 | 756.4 | 0.7396 | 14.868 | 757.0 | 0.7396 | 19.703 | 925.0 | 0.7396 |
| 3 | 17.444 | 796.9 | 0.7163 | 19.771 | 796.3 | 0.7198 | 25.618 | 950.4 | 0.7207 |
| 4 | 19.229 | 845.7 | 0.6644 | 21.942 | 843.0 | 0.6723 | 28.101 | 977.4 | 0.6741 |
| 5 | 19.562 | 882.0 | 0.6081 | 22.522 | 874.3 | 0.6203 | 28.773 | 985.5 | 0.6227 |
| 6 | 19.406 | 908.2 | 0.5569 | 22.508 | 892.9 | 0.5718 | 28.831 | 991.9 | 0.5744 |
| 7 | 19.171 | 926.1 | 0.5122 | 22.350 | 903.1 | 0.5284 | 28.777 | 1001.3 | 0.5309 |
| 8 | 19.014 | 939.2 | 0.4727 | 22.237 | 909.1 | 0.4891 | 28.797 | 1013.3 | 0.4915 |
| 9 | 19.143 | 953.6 | 0.4376 | 22.431 | 917.9 | 0.4533 | 29.220 | 1034.5 | 0.4556 |
| 10 | 18.959 | 955.1 | 0.4063 | 22.250 | 918.3 | 0.4213 | 29.201 | 1049.7 | 0.4234 |
| 11 | 18.675 | 950.3 | 0.3788 | 21.954 | 916.6 | 0.3932 | 29.072 | 1065.7 | 0.3949 |
| 12 | 18.315 | 940.8 | 0.3548 | 21.581 | 914.9 | 0.3687 | 28.869 | 1082.2 | 0.3699 |
| 13 | 17.904 | 928.1 | 0.3339 | 21.181 | 916.4 | 0.3474 | 28.632 | 1098.3 | 0.3480 |
| 14 | 17.452 | 912.9 | 0.3155 | 20.850 | 933.0 | 0.3290 | 28.438 | 1112.0 | 0.3287 |
| 15 | 16.955 | 895.9 | 0.2992 | 20.925 | 1016.1 | 0.3136 | 28.567 | 1117.5 | 0.3123 |
| 16 | 16.412 | 878.3 | 0.2848 | 21.341 | 1173.6 | 0.3000 | 28.952 | 1114.4 | 0.2977 |
| 17 | 15.692 | 854.5 | 0.2718 | 20.762 | 1198.8 | 0.2852 | 28.431 | 1120.2 | 0.2827 |
| 18 | 14.615 | 828.4 | 0.2608 | 19.500 | 1165.8 | 0.2720 | 27.216 | 1125.0 | 0.2692 |
| 19 | 13.867 | 806.4 | 0.2511 | 18.448 | 1113.6 | 0.2602 | 26.065 | 1115.0 | 0.2569 |
| 20 | 13.295 | 798.2 | 0.2434 | 17.505 | 1053.3 | 0.2506 | 24.823 | 1085.2 | 0.2467 |
| 21 | 12.443 | 780.4 | 0.2362 | 16.168 | 979.5 | 0.2420 | 22.876 | 1026.9 | 0.2377 |
| 22 | 10.786 | 750.4 | 0.2303 | 13.954 | 901.7 | 0.2351 | 19.850 | 954.6 | 0.2303 |
| 23 | 8.611 | 706.5 | 0.2248 | 11.087 | 814.0 | 0.2290 | 15.872 | 864.4 | 0.2240 |
| 24 | 3.536 | 619.4 | 0.2213 | 4.557 | 656.9 | 0.2254 | 6.624 | 679.1 | 0.2200 |
| 25 | 2.098 | 597.4 | 0.2212 | 2.656 | 613.2 | 0.2246 | 3.810 | 625.9 | 0.2190 |

Table 4-75. LS1 Burnup and TH Feedback Parameters Assembly E1 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.573 | 608.8 | 0.7396 |
| 2 | 19.750 | 723.3 | 0.7396 |
| 3 | 25.676 | 736.3 | 0.7208 |
| 4 | 28.166 | 760.2 | 0.6744 |
| 5 | 28.843 | 777.7 | 0.623 |
| 6 | 28.907 | 799.2 | 0.5748 |
| 7 | 28.859 | 821.4 | 0.5313 |
| 8 | 28.883 | 836.5 | 0.4920 |
| 9 | 29.311 | 855.8 | 0.4562 |
| 10 | 29.294 | 863.7 | 0.4240 |
| 11 | 29.166 | 867.7 | 0.3954 |
| 12 | 28.962 | 863.7 | 0.3704 |
| 13 | 28.724 | 859.8 | 0.3485 |
| 14 | 28.528 | 851.9 | 0.3291 |
| 15 | 28.654 | 840.3 | 0.3127 |
| 16 | 29.035 | 825.1 | 0.2981 |
| 17 | 28.512 | 817.6 | 0.2830 |
| 18 | 27.294 | 806.5 | 0.2695 |
| 19 | 26.139 | 792.0 | 0.2573 |
| 20 | 24.893 | 777.7 | 0.2470 |
| 21 | 22.940 | 756.7 | 0.2380 |
| 22 | 19.906 | 729.6 | 0.2306 |
| 23 | 15.917 | 694.0 | 0.2242 |
| 24 | 6.643 | 616.0 | 0.2202 |
| 25 | 3.820 | 590.6 | 0.2192 |

Table 4-76. LS1 Burnup and TH Feedback Parameters Assembly E2

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.572 | 658.5 | 0.7396 | 2.715 | 678.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.767 | 993.0 | 0.7396 | 9.912 | 1093.7 | 0.7396 |
| 3 | 0.000 | | 0.7156 | 7.825 | 1105.3 | 0.7156 | 13.277 | 1215.6 | 0.7107 |
| 4 | 0.000 | Data | 0.6563 | 8.856 | 1209.4 | 0.6563 | 14.672 | 1280.4 | 0.6476 |
| 5 | 0.000 | Not | 0.5849 | 9.136 | 1239.3 | 0.5849 | 14.850 | 1261.9 | 0.5751 |
| 6 | 0.000 | Required | 0.5178 | 9.111 | 1236.6 | 0.5178 | 14.627 | 1226.8 | 0.5092 |
| 7 | 0.000 | | 0.4623 | 9.008 | 1225.6 | 0.4623 | 14.351 | 1196.9 | 0.4556 |
| 8 | 0.000 | | 0.4177 | 8.901 | 1214.2 | 0.4177 | 14.114 | 1174.9 | 0.4126 |
| 9 | 0.000 | | 0.3808 | 8.929 | 1217.1 | 0.3808 | 14.103 | 1168.3 | 0.3771 |
| 10 | 0.000 | | 0.3497 | 8.806 | 1204.1 | 0.3497 | 13.897 | 1154.6 | 0.3471 |
| 11 | 0.000 | | 0.3237 | 8.640 | 1186.8 | 0.3237 | 13.658 | 1142.6 | 0.3218 |
| 12 | 0.000 | | 0.3015 | 8.427 | 1164.9 | 0.3015 | 13.379 | 1131.9 | 0.3002 |
| 13 | 0.000 | | 0.2826 | 8.187 | 1140.8 | 0.2826 | 13.077 | 1121.9 | 0.2816 |
| 14 | 0.000 | | 0.2663 | 7.928 | 1115.3 | 0.2663 | 12.757 | 1112.2 | 0.2655 |
| 15 | 0.000 | | 0.2522 | 7.644 | 1088.1 | 0.2522 | 12.409 | 1102.1 | 0.2514 |
| 16 | 0.000 | | 0.2398 | 7.326 | 1058.4 | 0.2398 | 12.013 | 1090.0 | 0.2389 |
| 17 | 0.000 | | 0.2290 | 6.931 | 1022.7 | 0.2290 | 11.504 | 1072.4 | 0.2279 |
| 18 | 0.000 | | 0.2197 | 6.285 | 967.1 | 0.2197 | 10.638 | 1039.4 | 0.2183 |
| 19 | 0.000 | | 0.2119 | 5.871 | 933.2 | 0.2119 | 10.019 | 1009.6 | 0.2101 |
| 20 | 0.000 | | 0.2050 | 5.483 | 902.6 | 0.2050 | 9.381 | 974.6 | 0.2029 |
| 21 | 0.000 | | 0.1991 | 5.083 | 872.2 | 0.1991 | 8.656 | 930.9 | 0.1966 |
| 22 | 0.000 | | 0.1939 | 4.341 | 818.6 | 0.1939 | 7.388 | 864.7 | 0.1913 |
| 23 | 0.000 | | 0.1898 | 3.480 | 760.6 | 0.1898 | 5.905 | 792.7 | 0.1870 |
| 24 | 0.000 | | 0.1870 | 1.391 | 636.3 | 0.1870 | 2.411 | 651.6 | 0.1842 |
| 25 | 0.000 | | 0.1860 | 0.825 | 605.9 | 0.1860 | 1.414 | 613.2 | 0.1831 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.812 | 628.6 | 0.7396 | 4.292 | 610.6 | 0.7396 | 4.883 | 597.3 | 0.7396 |
| 2 | 13.930 | 843.5 | 0.7396 | 15.607 | 751.4 | 0.7396 | 17.566 | 690.0 | 0.7396 |
| 3 | 18.445 | 884.4 | 0.7184 | 20.568 | 772.8 | 0.7217 | 22.952 | 698.5 | 0.7251 |
| 4 | 20.415 | 929.8 | 0.6651 | 22.793 | 802.3 | 0.6726 | 25.378 | 711.0 | 0.6805 |
| 5 | 20.924 | 957.1 | 0.6030 | 23.491 | 825.0 | 0.6153 | 26.237 | 721.3 | 0.6286 |
| 6 | 20.912 | 975.0 | 0.5444 | 23.640 | 844.8 | 0.5609 | 26.570 | 733.1 | 0.5796 |
| 7 | 20.758 | 985.5 | 0.4939 | 23.619 | 861.6 | 0.5134 | 26.761 | 747.0 | 0.5370 |
| 8 | 20.584 | 991.0 | 0.4511 | 23.552 | 875.4 | 0.4722 | 26.925 | 762.5 | 0.5003 |
| 9 | 20.676 | 1000.0 | 0.4145 | 23.765 | 891.2 | 0.4360 | 27.422 | 781.9 | 0.4677 |
| 10 | 20.446 | 997.8 | 0.3829 | 23.593 | 898.9 | 0.4043 | 27.482 | 798.2 | 0.4388 |
| 11 | 20.141 | 992.1 | 0.3559 | 23.328 | 904.2 | 0.3769 | 27.437 | 813.9 | 0.4132 |
| 12 | 19.762 | 983.4 | 0.3328 | 22.980 | 908.4 | 0.3532 | 27.305 | 829.7 | 0.3907 |
| 13 | 19.333 | 972.5 | 0.3128 | 22.576 | 911.8 | 0.3325 | 27.110 | 845.3 | 0.3706 |
| 14 | 18.858 | 959.4 | 0.2953 | 22.120 | 914.3 | 0.3144 | 26.852 | 860.3 | 0.3526 |
| 15 | 18.327 | 944.2 | 0.2799 | 21.596 | 915.3 | 0.2986 | 26.512 | 874.5 | 0.3364 |
| 16 | 17.718 | 926.8 | 0.2663 | 20.975 | 913.6 | 0.2844 | 26.061 | 887.9 | 0.3219 |
| 17 | 16.961 | 906.9 | 0.2544 | 20.184 | 909.1 | 0.2720 | 25.417 | 899.6 | 0.3091 |
| 18 | 15.812 | 884.9 | 0.2445 | 18.978 | 901.4 | 0.2619 | 24.331 | 909.3 | 0.2988 |
| 19 | 14.859 | 859.5 | 0.2354 | 17.922 | 887.7 | 0.2523 | 23.297 | 911.1 | 0.2884 |
| 20 | 13.830 | 830.8 | 0.2273 | 16.738 | 867.6 | 0.2436 | 22.012 | 902.9 | 0.2787 |
| 21 | 12.588 | 794.5 | 0.2198 | 15.228 | 833.9 | 0.2354 | 20.163 | 876.0 | 0.2692 |
| 22 | 10.650 | 749.7 | 0.2137 | 12.933 | 791.2 | 0.2290 | 17.343 | 836.0 | 0.2622 |
| 23 | 8.383 | 700.6 | 0.2084 | 10.159 | 734.3 | 0.2233 | 13.712 | 774.8 | 0.2557 |
| 24 | 3.405 | 615.6 | 0.2053 | 4.114 | 627.2 | 0.2197 | 5.537 | 641.2 | 0.2511 |
| 25 | 1.944 | 590.8 | 0.2027 | 2.316 | 596.3 | 0.2163 | 3.048 | 602.5 | 0.2457 |

Table 4-76. LS1 Burnup and TH Feedback Parameters Assembly E2 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 4.897 | 605.5 | 0.7396 |
| 2 | 17.612 | 719.5 | 0.7396 |
| 3 | 23.012 | 743.0 | 0.7252 |
| 4 | 25.447 | 774.1 | 0.6806 |
| 5 | 26.311 | 792.0 | 0.6289 |
| 6 | 26.649 | 810.2 | 0.58 |
| 7 | 26.842 | 817.6 | 0.5375 |
| 8 | 27.010 | 832.7 | 0.5008 |
| 9 | 27.511 | 848.0 | 0.4682 |
| 10 | 27.573 | 855.8 | 0.4392 |
| 11 | 27.531 | 867.7 | 0.4137 |
| 12 | 27.411 | 916.7 | 0.3912 |
| 13 | 27.256 | 1103.0 | 0.3711 |
| 14 | 27.008 | 1155.6 | 0.3530 |
| 15 | 26.666 | 1144.9 | 0.3367 |
| 16 | 26.209 | 1113.3 | 0.3221 |
| 17 | 25.557 | 1072.7 | 0.3093 |
| 18 | 24.463 | 1033.6 | 0.2988 |
| 19 | 23.420 | 991.4 | 0.2885 |
| 20 | 22.126 | 951.1 | 0.2787 |
| 21 | 20.265 | 900.0 | 0.2693 |
| 22 | 17.431 | 844.2 | 0.2623 |
| 23 | 13.781 | 774.1 | 0.2557 |
| 24 | 5.566 | 645.0 | 0.2511 |
| 25 | 3.064 | 607.4 | 0.2458 |

Table 4-77. LS1 Burnup and TH Feedback Parameters Assembly E3

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.773 | 671.9 | 0.7396 | 2.901 | 676.8 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.439 | 1058.9 | 0.7396 | 10.535 | 1085.4 | 0.7396 |
| 3 | 0.000 | | 0.7078 | 8.573 | 1179.9 | 0.7078 | 13.915 | 1196.7 | 0.7066 |
| 4 | 0.000 | Data | 0.6412 | 9.410 | 1269.3 | 0.6412 | 15.119 | 1261.0 | 0.6393 |
| 5 | 0.000 | Not | 0.5664 | 9.403 | 1268.5 | 0.5664 | 15.072 | 1253.9 | 0.5646 |
| 6 | 0.000 | Required | 0.5004 | 9.144 | 1240.2 | 0.5004 | 14.683 | 1230.8 | 0.4989 |
| 7 | 0.000 | | 0.4480 | 8.894 | 1213.4 | 0.4480 | 14.314 | 1210.1 | 0.4467 |
| 8 | 0.000 | | 0.4064 | 8.709 | 1194.0 | 0.4064 | 14.035 | 1194.0 | 0.4051 |
| 9 | 0.000 | | 0.3720 | 8.687 | 1191.7 | 0.3720 | 14.000 | 1191.8 | 0.3708 |
| 10 | 0.000 | | 0.3429 | 8.536 | 1176.1 | 0.3429 | 13.783 | 1180.6 | 0.3418 |
| 11 | 0.000 | | 0.3185 | 8.362 | 1158.3 | 0.3185 | 13.547 | 1170.2 | 0.3173 |
| 12 | 0.000 | | 0.2976 | 8.167 | 1138.8 | 0.2976 | 13.292 | 1160.2 | 0.2963 |
| 13 | 0.000 | | 0.2796 | 7.959 | 1118.3 | 0.2796 | 13.026 | 1150.6 | 0.2782 |
| 14 | 0.000 | | 0.2639 | 7.738 | 1097.0 | 0.2639 | 12.747 | 1141.1 | 0.2623 |
| 15 | 0.000 | | 0.2502 | 7.500 | 1074.5 | 0.2502 | 12.449 | 1131.4 | 0.2484 |
| 16 | 0.000 | | 0.2382 | 7.235 | 1050.0 | 0.2382 | 12.120 | 1121.1 | 0.2361 |
| 17 | 0.000 | | 0.2276 | 6.907 | 1020.6 | 0.2276 | 11.708 | 1107.8 | 0.2251 |
| 18 | 0.000 | | 0.2184 | 6.333 | 971.1 | 0.2184 | 10.951 | 1079.3 | 0.2154 |
| 19 | 0.000 | | 0.2105 | 5.985 | 942.4 | 0.2105 | 10.424 | 1052.2 | 0.2069 |
| 20 | 0.000 | | 0.2034 | 5.647 | 915.4 | 0.2034 | 9.838 | 1015.8 | 0.1996 |
| 21 | 0.000 | | 0.1972 | 5.279 | 886.9 | 0.1972 | 9.123 | 967.2 | 0.1931 |
| 22 | 0.000 | | 0.1920 | 4.537 | 832.4 | 0.1920 | 7.821 | 893.9 | 0.1876 |
| 23 | 0.000 | | 0.1877 | 3.655 | 772.0 | 0.1877 | 6.272 | 814.3 | 0.1833 |
| 24 | 0.000 | | 0.1849 | 1.472 | 640.7 | 0.1849 | 2.580 | 659.7 | 0.1803 |
| 25 | 0.000 | | 0.1838 | 0.876 | 608.6 | 0.1838 | 1.516 | 617.6 | 0.1792 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.221 | 643.2 | 0.7396 | 4.979 | 641.2 | 0.7396 | 6.418 | 653.5 | 0.7396 |
| 2 | 15.321 | 909.7 | 0.7396 | 17.974 | 885.8 | 0.7396 | 22.555 | 901.7 | 0.7396 |
| 3 | 20.227 | 977.3 | 0.7128 | 23.746 | 949.9 | 0.7154 | 29.292 | 925.1 | 0.7180 |
| 4 | 22.333 | 1058.0 | 0.6532 | 26.393 | 1029.8 | 0.6588 | 32.249 | 951.2 | 0.6648 |
| 5 | 22.806 | 1107.7 | 0.5849 | 27.174 | 1078.5 | 0.5930 | 33.132 | 959.9 | 0.6026 |
| 6 | 22.707 | 1136.5 | 0.5217 | 27.214 | 1101.3 | 0.5306 | 33.251 | 966.8 | 0.5433 |
| 7 | 22.506 | 1153.6 | 0.4687 | 27.061 | 1109.3 | 0.4771 | 33.202 | 975.8 | 0.4918 |
| 8 | 22.360 | 1167.2 | 0.4250 | 26.941 | 1113.6 | 0.4327 | 33.218 | 987.8 | 0.4482 |
| 9 | 22.532 | 1188.8 | 0.3884 | 27.183 | 1125.4 | 0.3953 | 33.686 | 1008.1 | 0.4112 |
| 10 | 22.313 | 1188.6 | 0.3572 | 26.956 | 1124.1 | 0.3635 | 33.624 | 1023.2 | 0.3794 |
| 11 | 21.969 | 1177.3 | 0.3306 | 26.589 | 1120.2 | 0.3365 | 33.428 | 1039.2 | 0.3521 |
| 12 | 21.539 | 1159.2 | 0.3080 | 26.131 | 1115.5 | 0.3133 | 33.149 | 1056.1 | 0.3287 |
| 13 | 21.068 | 1138.3 | 0.2886 | 25.636 | 1111.5 | 0.2935 | 32.835 | 1073.5 | 0.3083 |
| 14 | 20.581 | 1117.6 | 0.2717 | 25.124 | 1107.3 | 0.2763 | 32.496 | 1090.5 | 0.2905 |
| 15 | 20.046 | 1094.4 | 0.2569 | 24.550 | 1100.8 | 0.2612 | 32.086 | 1106.8 | 0.2747 |
| 16 | 19.404 | 1064.5 | 0.2439 | 23.833 | 1088.5 | 0.2478 | 31.521 | 1122.2 | 0.2605 |
| 17 | 18.563 | 1025.1 | 0.2324 | 22.851 | 1065.7 | 0.2360 | 30.669 | 1135.5 | 0.2480 |
| 18 | 17.296 | 980.1 | 0.2224 | 21.386 | 1034.5 | 0.2257 | 29.292 | 1144.6 | 0.2371 |
| 19 | 16.242 | 936.0 | 0.2137 | 20.089 | 997.5 | 0.2167 | 27.944 | 1139.3 | 0.2272 |
| 20 | 15.123 | 893.4 | 0.2061 | 18.712 | 959.9 | 0.2088 | 26.344 | 1116.5 | 0.2183 |
| 21 | 13.770 | 845.2 | 0.1994 | 17.019 | 912.6 | 0.2020 | 24.092 | 1061.4 | 0.2103 |
| 22 | 11.689 | 790.1 | 0.1939 | 14.525 | 858.4 | 0.1963 | 20.791 | 986.9 | 0.2038 |
| 23 | 9.258 | 732.0 | 0.1894 | 11.545 | 791.7 | 0.1918 | 16.650 | 889.4 | 0.1985 |
| 24 | 3.841 | 630.2 | 0.1867 | 4.823 | 653.2 | 0.1891 | 7.059 | 689.4 | 0.1954 |
| 25 | 2.230 | 600.6 | 0.1854 | 2.791 | 613.5 | 0.1877 | 4.057 | 632.2 | 0.1937 |

Table 4-77. LS1 Burnup and TH Feedback Parameters Assembly E3 (continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.427 | 589.1 | 0.7396 |
| 2 | 22.583 | 653.4 | 0.7396 |
| 3 | 29.327 | 663.0 | 0.7181 |
| 4 | 32.287 | 672.1 | 0.6649 |
| 5 | 33.175 | 687.7 | 0.6029 |
| 6 | 33.297 | 697.1 | 0.5436 |
| 7 | 33.254 | 716.5 | 0.4922 |
| 8 | 33.275 | 733.0 | 0.4487 |
| 9 | 33.748 | 749.8 | 0.4118 |
| 10 | 33.688 | 756.7 | 0.3800 |
| 11 | 33.494 | 763.6 | 0.3528 |
| 12 | 33.217 | 770.6 | 0.3294 |
| 13 | 32.903 | 770.6 | 0.3090 |
| 14 | 32.563 | 767.1 | 0.2911 |
| 15 | 32.152 | 763.6 | 0.2752 |
| 16 | 31.586 | 760.2 | 0.2612 |
| 17 | 30.732 | 753.3 | 0.2486 |
| 18 | 29.352 | 743.0 | 0.2377 |
| 19 | 28.002 | 736.3 | 0.2277 |
| 20 | 26.399 | 726.3 | 0.2188 |
| 21 | 24.142 | 710.0 | 0.2108 |
| 22 | 20.834 | 687.7 | 0.2043 |
| 23 | 16.684 | 660.0 | 0.1990 |
| 24 | 7.072 | 599.0 | 0.1958 |
| 25 | 4.064 | 582.3 | 0.1941 |

Table 4-78. LS1 Burnup and TH Feedback Parameters Assembly E4

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.570 | 658.3 | 0.7396 | 2.712 | 678.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.762 | 992.5 | 0.7396 | 9.904 | 1093.2 | 0.7396 |
| 3 | 0.000 | | 0.7158 | 7.819 | 1104.8 | 0.7158 | 13.268 | 1215.1 | 0.7108 |
| 4 | 0.000 | Data | 0.6565 | 8.852 | 1209.0 | 0.6565 | 14.664 | 1279.7 | 0.6478 |
| 5 | 0.000 | Not | 0.5853 | 9.132 | 1238.9 | 0.5853 | 14.844 | 1261.6 | 0.5755 |
| 6 | 0.000 | Required | 0.5182 | 9.108 | 1236.3 | 0.5182 | 14.623 | 1226.6 | 0.5096 |
| 7 | 0.000 | | 0.4627 | 9.005 | 1225.2 | 0.4627 | 14.347 | 1196.7 | 0.4560 |
| 8 | 0.000 | | 0.4180 | 8.899 | 1214.0 | 0.4180 | 14.111 | 1174.7 | 0.4129 |
| 9 | 0.000 | | 0.3811 | 8.926 | 1216.8 | 0.3811 | 14.100 | 1168.3 | 0.3774 |
| 10 | 0.000 | | 0.3500 | 8.804 | 1203.9 | 0.3500 | 13.894 | 1154.4 | 0.3474 |
| 11 | 0.000 | | 0.3239 | 8.638 | 1186.6 | 0.3239 | 13.655 | 1142.4 | 0.3221 |
| 12 | 0.000 | | 0.3018 | 8.425 | 1164.7 | 0.3018 | 13.376 | 1131.7 | 0.3005 |
| 13 | 0.000 | | 0.2829 | 8.185 | 1140.6 | 0.2829 | 13.074 | 1121.8 | 0.2819 |
| 14 | 0.000 | | 0.2666 | 7.925 | 1115.0 | 0.2666 | 12.754 | 1112.2 | 0.2657 |
| 15 | 0.000 | | 0.2524 | 7.642 | 1087.9 | 0.2524 | 12.406 | 1102.0 | 0.2516 |
| 16 | 0.000 | | 0.2400 | 7.323 | 1058.1 | 0.2400 | 12.010 | 1090.0 | 0.2391 |
| 17 | 0.000 | | 0.2292 | 6.929 | 1022.5 | 0.2292 | 11.501 | 1072.3 | 0.2282 |
| 18 | 0.000 | | 0.2200 | 6.283 | 967.0 | 0.2200 | 10.635 | 1039.3 | 0.2185 |
| 19 | 0.000 | | 0.2121 | 5.869 | 933.1 | 0.2121 | 10.016 | 1009.5 | 0.2103 |
| 20 | 0.000 | | 0.2053 | 5.480 | 902.4 | 0.2053 | 9.378 | 974.6 | 0.2031 |
| 21 | 0.000 | | 0.1993 | 5.081 | 872.0 | 0.1993 | 8.653 | 930.8 | 0.1968 |
| 22 | 0.000 | | 0.1941 | 4.339 | 818.4 | 0.1941 | 7.385 | 864.6 | 0.1915 |
| 23 | 0.000 | | 0.1900 | 3.478 | 760.5 | 0.1900 | 5.902 | 792.6 | 0.1872 |
| 24 | 0.000 | | 0.1873 | 1.390 | 636.2 | 0.1873 | 2.410 | 651.6 | 0.1844 |
| 25 | 0.000 | | 0.1862 | 0.825 | 605.9 | 0.1862 | 1.413 | 613.1 | 0.1833 |
| | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| Node | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.810 | 628.6 | 0.7396 | 4.291 | 610.7 | 0.7396 | 4.882 | 597.3 | 0.7396 |
| 2 | 13.925 | 843.8 | 0.7396 | 15.603 | 751.5 | 0.7396 | 17.559 | 689.8 | 0.7396 |
| 3 | 18.439 | 884.6 | 0.7185 | 20.562 | 772.8 | 0.7217 | 22.943 | 698.3 | 0.7252 |
| 4 | 20.408 | 929.9 | 0.6653 | 22.787 | 802.5 | 0.6727 | 25.368 | 710.8 | 0.6806 |
| 5 | 20.919 | 957.2 | 0.6033 | 23.486 | 825.0 | 0.6156 | 26.228 | 721.0 | 0.6288 |
| 6 | 20.907 | 974.9 | 0.5447 | 23.634 | 844.7 | 0.5612 | 26.562 | 733.0 | 0.5799 |
| 7 | 20.753 | 985.4 | 0.4942 | 23.613 | 861.5 | 0.5136 | 26.752 | 746.8 | 0.5373 |
| 8 | 20.579 | 990.8 | 0.4514 | 23.547 | 875.4 | 0.4725 | 26.916 | 762.2 | 0.5006 |
| 9 | 20.671 | 999.8 | 0.4147 | 23.759 | 891.0 | 0.4363 | 27.414 | 781.8 | 0.4680 |
| 10 | 20.441 | 997.7 | 0.3831 | 23.586 | 898.6 | 0.4045 | 27.473 | 798.1 | 0.4390 |
| 11 | 20.136 | 991.9 | 0.3562 | 23.321 | 903.9 | 0.3771 | 27.429 | 813.9 | 0.4135 |
| 12 | 19.757 | 983.2 | 0.3331 | 22.974 | 908.2 | 0.3534 | 27.298 | 829.6 | 0.3909 |
| 13 | 19.328 | 972.4 | 0.3130 | 22.571 | 911.8 | 0.3327 | 27.103 | 845.1 | 0.3708 |
| 14 | 18.853 | 959.2 | 0.2955 | 22.115 | 914.3 | 0.3147 | 26.846 | 860.2 | 0.3528 |
| 15 | 18.323 | 944.1 | 0.2801 | 21.591 | 915.1 | 0.2988 | 26.506 | 874.5 | 0.3366 |
| 16 | 17.714 | 926.7 | 0.2665 | 20.971 | 913.6 | 0.2846 | 26.055 | 887.7 | 0.3221 |
| 17 | 16.958 | 906.9 | 0.2546 | 20.179 | 908.8 | 0.2723 | 25.412 | 899.6 | 0.3093 |
| 18 | 15.808 | 884.8 | 0.2447 | 18.974 | 901.4 | 0.2621 | 24.326 | 909.2 | 0.2990 |
| 19 | 14.855 | 859.5 | 0.2366 | 17.918 | 887.7 | 0.2525 | 23.292 | 911.0 | 0.2886 |
| 20 | 13.827 | 830.8 | 0.2275 | 16.734 | 867.5 | 0.2438 | 22.008 | 902.9 | 0.2789 |
| 21 | 12.584 | 794.4 | 0.2200 | 15.225 | 834.1 | 0.2356 | 20.159 | 875.9 | 0.2694 |
| 22 | 10.648 | 749.8 | 0.2139 | 12.930 | 791.1 | 0.2292 | 17.340 | 836.0 | 0.2625 |
| 23 | 8.380 | 700.6 | 0.2086 | 10.156 | 734.3 | 0.2235 | 13.709 | 774.8 | 0.2559 |
| 24 | 3.404 | 615.6 | 0.2055 | 4.113 | 627.2 | 0.2199 | 5.537 | 641.2 | 0.2513 |
| 25 | 1.942 | 590.8 | 0.2029 | 2.314 | 596.3 | 0.2165 | 3.047 | 602.6 | 0.2459 |

Table 4-78. LS1 Burnup and TH Feedback Parameters Assembly E4 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 4.895 | 602.2 | 0.7396 |
| 2 | 17.605 | 719.5 | 0.7396 |
| 3 | 23.003 | 743.0 | 0.7253 |
| 4 | 25.437 | 774.1 | 0.6808 |
| 5 | 26.302 | 792.0 | 0.6291 |
| 6 | 26.640 | 806.5 | 0.5802 |
| 7 | 26.834 | 821.4 | 0.5377 |
| 8 | 27.001 | 832.7 | 0.5010 |
| 9 | 27.503 | 848.1 | 0.4684 |
| 10 | 27.565 | 859.8 | 0.4395 |
| 11 | 27.523 | 867.7 | 0.4139 |
| 12 | 27.404 | 916.7 | 0.3914 |
| 13 | 27.249 | 1103.0 | 0.3714 |
| 14 | 27.002 | 1155.6 | 0.3533 |
| 15 | 26.660 | 1144.9 | 0.3369 |
| 16 | 26.203 | 1113.3 | 0.3224 |
| 17 | 25.552 | 1072.7 | 0.3095 |
| 18 | 24.458 | 1033.6 | 0.2991 |
| 19 | 23.416 | 996.0 | 0.2887 |
| 20 | 22.122 | 951.1 | 0.2790 |
| 21 | 20.261 | 900.0 | 0.2695 |
| 22 | 17.428 | 844.2 | 0.2625 |
| 23 | 13.779 | 777.7 | 0.2559 |
| 24 | 5.565 | 642.1 | 0.2513 |
| 25 | 3.063 | 607.4 | 0.2460 |

Table 4-79. LS1 Burnup and TH Feedback Parameters Assembly E5

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.737 | 669.5 | 0.7396 | 2.906 | 681.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.321 | 1047.1 | 0.7396 | 10.562 | 1110.2 | 0.7396 |
| 3 | 0.000 | | 0.7092 | 8.461 | 1168.4 | 0.7092 | 13.992 | 1229.4 | 0.7056 |
| 4 | 0.000 | Data | 0.6436 | 9.352 | 1262.9 | 0.6436 | 15.256 | 1296.5 | 0.6374 |
| 5 | 0.000 | Not | 0.5692 | 9.388 | 1266.9 | 0.5692 | 15.248 | 1288.5 | 0.5619 |
| 6 | 0.000 | Required | 0.5029 | 9.142 | 1240.0 | 0.5029 | 14.874 | 1265.2 | 0.4958 |
| 7 | 0.000 | | 0.4501 | 8.888 | 1212.8 | 0.4501 | 14.500 | 1243.7 | 0.4435 |
| 8 | 0.000 | | 0.4082 | 8.693 | 1192.3 | 0.4082 | 14.210 | 1227.0 | 0.4019 |
| 9 | 0.000 | | 0.3736 | 8.664 | 1189.3 | 0.3736 | 14.166 | 1224.4 | 0.3677 |
| 10 | 0.000 | | 0.3445 | 8.512 | 1173.6 | 0.3445 | 13.941 | 1211.7 | 0.3388 |
| 11 | 0.000 | | 0.3200 | 8.340 | 1156.1 | 0.3200 | 13.702 | 1200.1 | 0.3145 |
| 12 | 0.000 | | 0.2991 | 8.151 | 1137.2 | 0.2991 | 13.448 | 1189.0 | 0.2937 |
| 13 | 0.000 | | 0.2810 | 7.950 | 1117.4 | 0.2810 | 13.182 | 1178.1 | 0.2756 |
| 14 | 0.000 | | 0.2654 | 7.735 | 1096.7 | 0.2654 | 12.901 | 1167.0 | 0.2599 |
| 15 | 0.000 | | 0.2516 | 7.497 | 1074.2 | 0.2516 | 12.590 | 1154.9 | 0.2460 |
| 16 | 0.000 | | 0.2395 | 7.225 | 1049.1 | 0.2395 | 12.227 | 1140.0 | 0.2337 |
| 17 | 0.000 | | 0.2288 | 6.876 | 1017.8 | 0.2288 | 11.747 | 1118.9 | 0.2228 |
| 18 | 0.000 | | 0.2196 | 6.280 | 966.7 | 0.2196 | 10.915 | 1081.9 | 0.2131 |
| 19 | 0.000 | | 0.2117 | 5.921 | 937.2 | 0.2117 | 10.340 | 1049.2 | 0.2048 |
| 20 | 0.000 | | 0.2048 | 5.592 | 911.1 | 0.2048 | 9.751 | 1011.2 | 0.1977 |
| 21 | 0.000 | | 0.1986 | 5.241 | 884.1 | 0.1986 | 9.057 | 963.4 | 0.1913 |
| 22 | 0.000 | | 0.1932 | 4.517 | 831.0 | 0.1932 | 7.778 | 891.0 | 0.1859 |
| 23 | 0.000 | | 0.1890 | 3.648 | 771.6 | 0.1890 | 6.253 | 812.9 | 0.1816 |
| 24 | 0.000 | | 0.1861 | 1.473 | 640.8 | 0.1861 | 2.581 | 659.7 | 0.1786 |
| 25 | 0.000 | | 0.1850 | 0.878 | 608.7 | 0.1850 | 1.522 | 618.0 | 0.1776 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.208 | 642.0 | 0.7396 | 4.980 | 642.8 | 0.7396 | 6.468 | 656.9 | 0.7396 |
| 2 | 15.286 | 904.2 | 0.7396 | 17.978 | 891.6 | 0.7396 | 22.677 | 912.5 | 0.7396 |
| 3 | 20.231 | 971.1 | 0.7130 | 23.774 | 953.3 | 0.7156 | 29.415 | 933.0 | 0.7177 |
| 4 | 22.392 | 1050.7 | 0.6534 | 26.441 | 1028.1 | 0.6590 | 32.369 | 957.4 | 0.6641 |
| 5 | 22.893 | 1099.0 | 0.5851 | 27.216 | 1071.3 | 0.5931 | 33.245 | 966.1 | 0.6017 |
| 6 | 22.788 | 1125.5 | 0.5219 | 27.224 | 1089.6 | 0.5307 | 33.347 | 974.3 | 0.5422 |
| 7 | 22.557 | 1139.8 | 0.4685 | 27.023 | 1094.5 | 0.4771 | 33.272 | 985.4 | 0.4907 |
| 8 | 22.381 | 1151.4 | 0.4247 | 26.863 | 1097.2 | 0.4325 | 33.265 | 999.0 | 0.4473 |
| 9 | 22.527 | 1171.0 | 0.3881 | 27.066 | 1106.6 | 0.3953 | 33.703 | 1020.4 | 0.4104 |
| 10 | 22.300 | 1170.8 | 0.3570 | 26.821 | 1103.6 | 0.3637 | 33.625 | 1035.9 | 0.3788 |
| 11 | 21.959 | 1160.2 | 0.3305 | 26.451 | 1098.8 | 0.3368 | 33.425 | 1051.9 | 0.3517 |
| 12 | 21.539 | 1143.3 | 0.3080 | 26.003 | 1094.2 | 0.3138 | 33.152 | 1068.7 | 0.3283 |
| 13 | 21.067 | 1122.6 | 0.2885 | 25.524 | 1093.1 | 0.2941 | 32.845 | 1085.5 | 0.3080 |
| 14 | 20.549 | 1099.3 | 0.2716 | 25.034 | 1097.7 | 0.2768 | 32.514 | 1101.2 | 0.2901 |
| 15 | 19.960 | 1072.7 | 0.2569 | 24.503 | 1107.3 | 0.2618 | 32.127 | 1115.7 | 0.2743 |
| 16 | 19.255 | 1040.8 | 0.2439 | 23.829 | 1112.5 | 0.2484 | 31.582 | 1128.8 | 0.2602 |
| 17 | 18.348 | 1002.4 | 0.2324 | 22.863 | 1102.6 | 0.2365 | 30.726 | 1140.1 | 0.2477 |
| 18 | 17.034 | 960.9 | 0.2225 | 21.388 | 1076.3 | 0.2263 | 29.322 | 1147.5 | 0.2368 |
| 19 | 15.968 | 920.6 | 0.2139 | 20.084 | 1038.5 | 0.2171 | 27.944 | 1139.8 | 0.2268 |
| 20 | 14.898 | 882.8 | 0.2063 | 18.731 | 995.5 | 0.2093 | 26.334 | 1113.6 | 0.2178 |
| 21 | 13.620 | 839.1 | 0.1997 | 17.058 | 938.5 | 0.2023 | 24.068 | 1055.3 | 0.2099 |
| 22 | 11.607 | 787.4 | 0.1942 | 14.572 | 875.0 | 0.1965 | 20.757 | 979.7 | 0.2034 |
| 23 | 9.223 | 731.0 | 0.1898 | 11.581 | 800.0 | 0.1920 | 16.609 | 883.3 | 0.1981 |
| 24 | 3.836 | 629.9 | 0.1870 | 4.837 | 655.0 | 0.1892 | 7.036 | 687.1 | 0.1950 |
| 25 | 2.231 | 600.3 | 0.1856 | 2.798 | 614.0 | 0.1877 | 4.043 | 631.0 | 0.1932 |

Table 4-79. LS1 Burnup and TH Feedback Parameters Assembly E5 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.482 | 605.5 | 0.7396 |
| 2 | 22.719 | 704.4 | 0.7396 |
| 3 | 29.467 | 716.5 | 0.7177 |
| 4 | 32.426 | 733.0 | 0.6642 |
| 5 | 33.307 | 749.8 | 0.6019 |
| 6 | 33.416 | 774.1 | 0.5427 |
| 7 | 33.346 | 792.0 | 0.4912 |
| 8 | 33.344 | 810.2 | 0.4479 |
| 9 | 33.787 | 828.9 | 0.4110 |
| 10 | 33.712 | 840.3 | 0.3795 |
| 11 | 33.513 | 844.2 | 0.3523 |
| 12 | 33.240 | 844.2 | 0.3289 |
| 13 | 32.933 | 844.2 | 0.3085 |
| 14 | 32.601 | 840.3 | 0.2907 |
| 15 | 32.211 | 828.9 | 0.2748 |
| 16 | 31.664 | 821.4 | 0.2607 |
| 17 | 30.806 | 813.9 | 0.2481 |
| 18 | 29.400 | 806.5 | 0.2372 |
| 19 | 28.019 | 795.6 | 0.2273 |
| 20 | 26.404 | 777.7 | 0.2183 |
| 21 | 24.133 | 760.1 | 0.2103 |
| 22 | 20.814 | 733.0 | 0.2038 |
| 23 | 16.655 | 697.1 | 0.1985 |
| 24 | 7.055 | 616.0 | 0.1954 |
| 25 | 4.053 | 590.6 | 0.1937 |

Table 4-80. LS1 Burnup and TH Feedback Parameters Assembly E6

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.670 | 665.0 | 0.7396 | 2.739 | 670.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.109 | 1026.0 | 0.7396 | 10.005 | 1052.0 | 0.7396 |
| 3 | 0.000 | | 0.7121 | 8.215 | 1143.6 | 0.7121 | 13.369 | 1165.0 | 0.7111 |
| 4 | 0.000 | Data | 0.6493 | 9.158 | 1241.7 | 0.6493 | 14.707 | 1232.6 | 0.6481 |
| 5 | 0.000 | Not | 0.5759 | 9.290 | 1256.1 | 0.5759 | 14.794 | 1224.7 | 0.5755 |
| 6 | 0.000 | Required | 0.5091 | 9.136 | 1239.3 | 0.5091 | 14.482 | 1197.4 | 0.5097 |
| 7 | 0.000 | | 0.4552 | 8.955 | 1219.9 | 0.4552 | 14.149 | 1171.7 | 0.4565 |
| 8 | 0.000 | | 0.4121 | 8.811 | 1204.7 | 0.4121 | 13.886 | 1151.9 | 0.4139 |
| 9 | 0.000 | | 0.3764 | 8.814 | 1205.0 | 0.3764 | 13.858 | 1146.9 | 0.3788 |
| 10 | 0.000 | | 0.3463 | 8.668 | 1189.7 | 0.3463 | 13.636 | 1134.5 | 0.3491 |
| 11 | 0.000 | | 0.3211 | 8.483 | 1170.6 | 0.3211 | 13.380 | 1123.1 | 0.3241 |
| 12 | 0.000 | | 0.2996 | 8.264 | 1148.5 | 0.2996 | 13.093 | 1112.2 | 0.3027 |
| 13 | 0.000 | | 0.2812 | 8.026 | 1124.9 | 0.2812 | 12.790 | 1102.0 | 0.2843 |
| 14 | 0.000 | | 0.2654 | 7.772 | 1100.2 | 0.2654 | 12.474 | 1092.3 | 0.2683 |
| 15 | 0.000 | | 0.2516 | 7.499 | 1074.4 | 0.2516 | 12.138 | 1082.5 | 0.2543 |
| 16 | 0.000 | | 0.2395 | 7.198 | 1046.7 | 0.2395 | 11.772 | 1072.6 | 0.2420 |
| 17 | 0.000 | | 0.2290 | 6.830 | 1013.8 | 0.2290 | 11.321 | 1060.0 | 0.2311 |
| 18 | 0.000 | | 0.2200 | 6.215 | 961.3 | 0.2200 | 10.525 | 1033.1 | 0.2216 |
| 19 | 0.000 | | 0.2122 | 5.823 | 929.4 | 0.2122 | 9.962 | 1008.4 | 0.2134 |
| 20 | 0.000 | | 0.2054 | 5.447 | 899.8 | 0.2054 | 9.352 | 975.5 | 0.2061 |
| 21 | 0.000 | | 0.1994 | 5.055 | 870.1 | 0.1994 | 8.641 | 932.6 | 0.1996 |
| 22 | 0.000 | | 0.1942 | 4.318 | 816.9 | 0.1942 | 7.380 | 866.5 | 0.1941 |
| 23 | 0.000 | | 0.1901 | 3.461 | 759.4 | 0.1901 | 5.896 | 793.8 | 0.1899 |
| 24 | 0.000 | | 0.1875 | 1.382 | 635.8 | 0.1875 | 2.404 | 651.8 | 0.1871 |
| 25 | 0.000 | | 0.1864 | 0.820 | 605.6 | 0.1864 | 1.405 | 612.8 | 0.1859 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.842 | 629.0 | 0.7396 | 4.275 | 605.5 | 0.7396 | 4.793 | 592.6 | 0.7396 |
| 2 | 14.052 | 846.0 | 0.7396 | 15.565 | 730.6 | 0.7396 | 17.289 | 673.3 | 0.7396 |
| 3 | 18.585 | 888.1 | 0.7185 | 20.505 | 750.0 | 0.7217 | 22.611 | 681.4 | 0.7248 |
| 4 | 20.507 | 934.5 | 0.6651 | 22.671 | 777.5 | 0.6725 | 24.973 | 693.4 | 0.6798 |
| 5 | 20.926 | 962.0 | 0.6029 | 23.285 | 800.1 | 0.6152 | 25.760 | 704.1 | 0.6279 |
| 6 | 20.813 | 978.9 | 0.5446 | 23.355 | 822.0 | 0.5615 | 26.030 | 716.7 | 0.5797 |
| 7 | 20.581 | 987.7 | 0.4945 | 23.282 | 841.5 | 0.5150 | 26.186 | 731.4 | 0.5384 |
| 8 | 20.347 | 990.2 | 0.4522 | 23.182 | 858.3 | 0.4748 | 26.334 | 747.7 | 0.5029 |
| 9 | 20.382 | 995.7 | 0.4158 | 23.361 | 876.8 | 0.4395 | 26.811 | 767.7 | 0.4717 |
| 10 | 20.098 | 990.3 | 0.3845 | 23.157 | 887.2 | 0.4082 | 26.852 | 784.6 | 0.4437 |
| 11 | 19.743 | 981.7 | 0.3578 | 22.865 | 895.5 | 0.3812 | 26.790 | 800.8 | 0.4191 |
| 12 | 19.329 | 970.8 | 0.3349 | 22.506 | 902.9 | 0.3577 | 26.651 | 816.6 | 0.3972 |
| 13 | 18.875 | 958.1 | 0.3150 | 22.095 | 908.6 | 0.3372 | 26.451 | 832.0 | 0.3775 |
| 14 | 18.383 | 943.4 | 0.2976 | 21.631 | 912.4 | 0.3191 | 26.183 | 846.6 | 0.3597 |
| 15 | 17.847 | 927.1 | 0.2825 | 21.101 | 913.2 | 0.3032 | 25.833 | 860.3 | 0.3436 |
| 16 | 17.252 | 908.8 | 0.2690 | 20.484 | 910.3 | 0.2890 | 25.381 | 873.0 | 0.3290 |
| 17 | 16.540 | 888.3 | 0.2572 | 19.723 | 903.7 | 0.2765 | 24.760 | 884.0 | 0.3161 |
| 18 | 15.449 | 865.8 | 0.2473 | 18.558 | 893.8 | 0.2661 | 23.706 | 892.8 | 0.3056 |
| 19 | 14.543 | 840.4 | 0.2382 | 17.532 | 878.1 | 0.2564 | 22.696 | 894.1 | 0.2950 |
| 20 | 13.535 | 811.9 | 0.2299 | 16.351 | 855.9 | 0.2474 | 21.412 | 885.9 | 0.2851 |
| 21 | 12.309 | 776.5 | 0.2223 | 14.845 | 821.2 | 0.2391 | 19.570 | 859.8 | 0.2755 |
| 22 | 10.397 | 734.0 | 0.2161 | 12.568 | 778.3 | 0.2325 | 16.774 | 821.0 | 0.2663 |
| 23 | 8.173 | 688.5 | 0.2107 | 9.846 | 723.3 | 0.2265 | 13.216 | 762.3 | 0.2616 |
| 24 | 3.315 | 611.1 | 0.2076 | 3.979 | 623.0 | 0.2229 | 5.317 | 636.3 | 0.2567 |
| 25 | 1.892 | 588.5 | 0.2051 | 2.239 | 594.0 | 0.2194 | 2.923 | 599.9 | 0.2509 |

Table 4-80. LS1 Burnup and TH Feedback Parameters Assembly E6 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 4.805 | 598.9 | 0.7396 |
| 2 | 17.331 | 704.4 | 0.7396 |
| 3 | 22.666 | 726.3 | 0.7249 |
| 4 | 25.038 | 760.2 | 0.68 |
| 5 | 25.834 | 792.0 | 0.6282 |
| 6 | 26.123 | 863.7 | 0.5801 |
| 7 | 26.324 | 1062.7 | 0.5390 |
| 8 | 26.490 | 1155.6 | 0.5035 |
| 9 | 26.972 | 1182.9 | 0.4721 |
| 10 | 27.012 | 1177.4 | 0.4440 |
| 11 | 26.947 | 1161.0 | 0.4192 |
| 12 | 26.805 | 1144.9 | 0.3972 |
| 13 | 26.602 | 1129.0 | 0.3774 |
| 14 | 26.331 | 1113.3 | 0.3596 |
| 15 | 25.978 | 1097.9 | 0.3434 |
| 16 | 25.522 | 1077.7 | 0.3289 |
| 17 | 24.896 | 1052.9 | 0.3159 |
| 18 | 23.837 | 1028.8 | 0.3054 |
| 19 | 22.821 | 1000.6 | 0.2948 |
| 20 | 21.530 | 968.8 | 0.2849 |
| 21 | 19.677 | 920.9 | 0.2753 |
| 22 | 16.867 | 863.7 | 0.2681 |
| 23 | 13.292 | 799.2 | 0.2614 |
| 24 | 5.350 | 656.9 | 0.2565 |
| 25 | 2.941 | 613.1 | 0.2507 |

Table 4-81. LS1 Burnup and TH Feedback Parameters Assembly E7

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.772 | 671.9 | 0.7396 | 2.859 | 672.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.442 | 1059.2 | 0.7396 | 10.403 | 1062.8 | 0.7396 |
| 3 | 0.000 | | 0.7069 | 8.595 | 1182.2 | 0.7069 | 13.805 | 1174.4 | 0.7068 |
| 4 | 0.000 | Data | 0.6393 | 9.465 | 1275.4 | 0.6393 | 15.084 | 1245.0 | 0.6396 |
| 5 | 0.000 | Not | 0.5638 | 9.484 | 1277.5 | 0.5638 | 15.106 | 1245.5 | 0.5648 |
| 6 | 0.000 | Required | 0.4975 | 9.234 | 1250.0 | 0.4975 | 14.760 | 1228.6 | 0.4989 |
| 7 | 0.000 | | 0.4451 | 8.980 | 1222.6 | 0.4451 | 14.407 | 1211.3 | 0.4465 |
| 8 | 0.000 | | 0.4035 | 8.791 | 1202.6 | 0.4035 | 14.134 | 1196.9 | 0.4047 |
| 9 | 0.000 | | 0.3691 | 8.771 | 1200.5 | 0.3691 | 14.106 | 1195.5 | 0.3703 |
| 10 | 0.000 | | 0.3403 | 8.630 | 1185.8 | 0.3403 | 13.898 | 1184.1 | 0.3413 |
| 11 | 0.000 | | 0.3160 | 8.472 | 1169.5 | 0.3160 | 13.677 | 1173.5 | 0.3168 |
| 12 | 0.000 | | 0.2953 | 8.300 | 1152.1 | 0.2953 | 13.442 | 1163.0 | 0.2958 |
| 13 | 0.000 | | 0.2773 | 8.115 | 1133.6 | 0.2773 | 13.194 | 1152.6 | 0.2777 |
| 14 | 0.000 | | 0.2617 | 7.909 | 1113.5 | 0.2617 | 12.923 | 1142.0 | 0.2619 |
| 15 | 0.000 | | 0.2479 | 7.670 | 1090.5 | 0.2479 | 12.611 | 1130.1 | 0.2478 |
| 16 | 0.000 | | 0.2358 | 7.387 | 1064.0 | 0.2358 | 12.237 | 1115.6 | 0.2354 |
| 17 | 0.000 | | 0.2252 | 7.022 | 1030.8 | 0.2252 | 11.747 | 1095.9 | 0.2245 |
| 18 | 0.000 | | 0.2159 | 6.404 | 977.1 | 0.2159 | 10.918 | 1063.5 | 0.2149 |
| 19 | 0.000 | | 0.2081 | 6.021 | 945.4 | 0.2081 | 10.364 | 1037.9 | 0.2066 |
| 20 | 0.000 | | 0.2012 | 5.670 | 917.2 | 0.2012 | 9.805 | 1007.8 | 0.1992 |
| 21 | 0.000 | | 0.1951 | 5.306 | 889.0 | 0.1951 | 9.142 | 966.1 | 0.1927 |
| 22 | 0.000 | | 0.1898 | 4.576 | 835.2 | 0.1898 | 7.882 | 896.7 | 0.1871 |
| 23 | 0.000 | | 0.1855 | 3.702 | 775.1 | 0.1855 | 6.355 | 818.4 | 0.1827 |
| 24 | 0.000 | | 0.1827 | 1.497 | 642.1 | 0.1827 | 2.627 | 661.7 | 0.1797 |
| 25 | 0.000 | | 0.1816 | 0.893 | 609.5 | 0.1816 | 1.547 | 618.9 | 0.1785 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.911 | 625.7 | 0.7396 | 4.356 | 606.8 | 0.7396 | 5.070 | 605.2 | 0.7396 |
| 2 | 14.261 | 830.3 | 0.7396 | 15.817 | 736.0 | 0.7396 | 18.171 | 718.9 | 0.7396 |
| 3 | 18.790 | 870.4 | 0.7154 | 20.774 | 757.1 | 0.7189 | 23.631 | 728.4 | 0.7230 |
| 4 | 20.655 | 916.0 | 0.6590 | 22.890 | 785.6 | 0.6670 | 25.974 | 743.2 | 0.6763 |
| 5 | 21.030 | 944.7 | 0.5953 | 23.452 | 807.6 | 0.6085 | 26.704 | 754.4 | 0.6236 |
| 6 | 20.925 | 964.8 | 0.5370 | 23.501 | 826.1 | 0.5547 | 26.935 | 766.6 | 0.5753 |
| 7 | 20.748 | 979.8 | 0.4878 | 23.443 | 840.7 | 0.5086 | 27.075 | 780.2 | 0.5336 |
| 8 | 20.635 | 993.7 | 0.4463 | 23.420 | 852.0 | 0.4687 | 27.254 | 794.3 | 0.4972 |
| 9 | 20.875 | 1017.3 | 0.4106 | 23.753 | 863.8 | 0.4335 | 27.831 | 811.7 | 0.4643 |
| 10 | 20.837 | 1032.7 | 0.3798 | 23.743 | 867.4 | 0.4023 | 27.998 | 824.6 | 0.4345 |
| 11 | 20.718 | 1042.0 | 0.3531 | 23.638 | 869.2 | 0.3751 | 28.062 | 837.1 | 0.4079 |
| 12 | 20.499 | 1043.4 | 0.3299 | 23.433 | 871.0 | 0.3512 | 28.027 | 849.8 | 0.3843 |
| 13 | 20.206 | 1039.3 | 0.3097 | 23.158 | 873.3 | 0.3305 | 27.924 | 862.9 | 0.3634 |
| 14 | 19.837 | 1030.4 | 0.2919 | 22.811 | 876.1 | 0.3123 | 27.752 | 876.5 | 0.3448 |
| 15 | 19.376 | 1017.0 | 0.2761 | 22.371 | 878.9 | 0.2962 | 27.489 | 890.4 | 0.3283 |
| 16 | 18.808 | 999.8 | 0.2622 | 21.817 | 880.7 | 0.2820 | 27.109 | 904.4 | 0.3137 |
| 17 | 18.077 | 978.9 | 0.2500 | 21.088 | 880.9 | 0.2695 | 26.539 | 917.3 | 0.3007 |
| 18 | 16.960 | 954.5 | 0.2396 | 19.965 | 880.2 | 0.2592 | 25.552 | 928.5 | 0.2901 |
| 19 | 16.045 | 924.8 | 0.2301 | 19.018 | 876.0 | 0.2495 | 24.644 | 931.8 | 0.2796 |
| 20 | 15.048 | 890.2 | 0.2215 | 17.964 | 868.6 | 0.2407 | 23.497 | 924.1 | 0.2697 |
| 21 | 13.782 | 844.7 | 0.2136 | 16.532 | 847.6 | 0.2325 | 21.720 | 896.0 | 0.2601 |
| 22 | 11.752 | 790.2 | 0.2072 | 14.216 | 812.6 | 0.2260 | 18.874 | 854.7 | 0.2529 |
| 23 | 9.302 | 729.6 | 0.2017 | 11.267 | 755.0 | 0.2201 | 15.057 | 791.2 | 0.2463 |
| 24 | 3.813 | 626.1 | 0.1983 | 4.603 | 634.8 | 0.2161 | 6.161 | 649.0 | 0.2418 |
| 25 | 2.184 | 596.5 | 0.1958 | 2.595 | 599.8 | 0.2123 | 3.411 | 607.1 | 0.2368 |

Table 4-81. LS1 Burnup and TH Feedback Parameters Assembly E7 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.094 | 639.5 | 0.7396 |
| 2 | 18.251 | 859.8 | 0.7396 |
| 3 | 23.733 | 900.0 | 0.7231 |
| 4 | 26.088 | 951.1 | 0.6765 |
| 5 | 26.825 | 982.3 | 0.6238 |
| 6 | 27.059 | 996.0 | 0.5755 |
| 7 | 27.200 | 1000.6 | 0.5338 |
| 8 | 27.380 | 1005.2 | 0.4973 |
| 9 | 27.960 | 1019.3 | 0.4643 |
| 10 | 28.128 | 1024.0 | 0.4345 |
| 11 | 28.192 | 1024.0 | 0.4079 |
| 12 | 28.157 | 1024.0 | 0.3843 |
| 13 | 28.053 | 1019.3 | 0.3634 |
| 14 | 27.879 | 1009.9 | 0.3447 |
| 15 | 27.613 | 996.0 | 0.3283 |
| 16 | 27.228 | 973.3 | 0.3136 |
| 17 | 26.652 | 946.7 | 0.3007 |
| 18 | 25.658 | 916.7 | 0.2901 |
| 19 | 24.742 | 883.7 | 0.2795 |
| 20 | 23.589 | 859.8 | 0.2697 |
| 21 | 21.802 | 821.4 | 0.2601 |
| 22 | 18.944 | 777.7 | 0.2529 |
| 23 | 15.114 | 733.0 | 0.2463 |
| 24 | 6.186 | 633.3 | 0.2417 |
| 25 | 3.425 | 601.8 | 0.2368 |

Table 4-82. LS1 Burnup and TH Feedback Parameters Assembly E8

| Node No. | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|-------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.668 | 664.9 | 0.7396 | 2.807 | 678.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.109 | 1026.0 | 0.7396 | 10.254 | 1093.7 | 0.7396 |
| 3 | 0.000 | | 0.7125 | 8.231 | 1145.2 | 0.7125 | 13.667 | 1212.9 | 0.7085 |
| 4 | 0.000 | Data | 0.6500 | 9.155 | 1241.4 | 0.6500 | 14.974 | 1281.0 | 0.6430 |
| 5 | 0.000 | Not | 0.5771 | 9.244 | 1251.1 | 0.5771 | 15.034 | 1275.7 | 0.5690 |
| 6 | 0.000 | Required | 0.5108 | 9.044 | 1229.4 | 0.5108 | 14.722 | 1255.5 | 0.5028 |
| 7 | 0.000 | | 0.4572 | 8.818 | 1205.4 | 0.4572 | 14.389 | 1236.5 | 0.4497 |
| 8 | 0.000 | | 0.4146 | 8.628 | 1185.6 | 0.4146 | 14.100 | 1219.1 | 0.4075 |
| 9 | 0.000 | | 0.3795 | 8.589 | 1181.5 | 0.3795 | 14.037 | 1215.0 | 0.3729 |
| 10 | 0.000 | | 0.3500 | 8.423 | 1164.5 | 0.3500 | 13.791 | 1201.2 | 0.3437 |
| 11 | 0.000 | | 0.3251 | 8.238 | 1145.9 | 0.3251 | 13.534 | 1188.9 | 0.3191 |
| 12 | 0.000 | | 0.3039 | 8.036 | 1125.9 | 0.3039 | 13.266 | 1177.7 | 0.2980 |
| 13 | 0.000 | | 0.2856 | 7.822 | 1105.0 | 0.2856 | 12.989 | 1167.2 | 0.2798 |
| 14 | 0.000 | | 0.2698 | 7.596 | 1083.5 | 0.2698 | 12.700 | 1156.7 | 0.2638 |
| 15 | 0.000 | | 0.2559 | 7.350 | 1060.6 | 0.2559 | 12.385 | 1145.4 | 0.2498 |
| 16 | 0.000 | | 0.2437 | 7.070 | 1035.1 | 0.2437 | 12.023 | 1132.1 | 0.2373 |
| 17 | 0.000 | | 0.2330 | 6.718 | 1004.0 | 0.2330 | 11.551 | 1112.9 | 0.2263 |
| 18 | 0.000 | | 0.2237 | 6.125 | 953.9 | 0.2237 | 10.728 | 1077.0 | 0.2165 |
| 19 | 0.000 | | 0.2157 | 5.771 | 925.2 | 0.2157 | 10.159 | 1044.6 | 0.2081 |
| 20 | 0.000 | | 0.2088 | 5.449 | 900.0 | 0.2088 | 9.574 | 1006.4 | 0.2009 |
| 21 | 0.000 | | 0.2027 | 5.106 | 873.9 | 0.2027 | 8.883 | 958.1 | 0.1946 |
| 22 | 0.000 | | 0.1973 | 4.393 | 822.2 | 0.1973 | 7.614 | 886.0 | 0.1892 |
| 23 | 0.000 | | 0.1930 | 3.538 | 764.4 | 0.1930 | 6.104 | 808.5 | 0.1849 |
| 24 | 0.000 | | 0.1901 | 1.424 | 638.1 | 0.1901 | 2.512 | 657.8 | 0.1818 |
| 25 | 0.000 | | 0.1890 | 0.847 | 607.0 | 0.1890 | 1.478 | 616.8 | 0.1807 |
| Node No. | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.170 | 646.0 | 0.7396 | 4.927 | 641.1 | 0.7396 | 6.347 | 652.2 | 0.7396 |
| 2 | 15.182 | 922.5 | 0.7396 | 17.831 | 885.2 | 0.7396 | 22.345 | 895.7 | 0.7396 |
| 3 | 20.128 | 990.2 | 0.7139 | 23.632 | 947.8 | 0.7164 | 29.083 | 917.3 | 0.7190 |
| 4 | 22.310 | 1069.4 | 0.6551 | 26.343 | 1025.7 | 0.6605 | 32.090 | 941.9 | 0.6665 |
| 5 | 22.862 | 1117.0 | 0.5867 | 27.193 | 1072.6 | 0.5948 | 33.043 | 950.7 | 0.6045 |
| 6 | 22.823 | 1144.3 | 0.5228 | 27.289 | 1094.5 | 0.5318 | 33.228 | 958.3 | 0.5448 |
| 7 | 22.654 | 1161.0 | 0.4691 | 27.166 | 1102.1 | 0.4778 | 33.225 | 968.7 | 0.4929 |
| 8 | 22.500 | 1175.0 | 0.4250 | 27.042 | 1107.1 | 0.4331 | 33.254 | 982.1 | 0.4493 |
| 9 | 22.643 | 1196.7 | 0.3883 | 27.259 | 1119.5 | 0.3957 | 33.713 | 1003.7 | 0.4122 |
| 10 | 22.399 | 1196.9 | 0.3571 | 27.014 | 1119.4 | 0.3639 | 33.644 | 1019.7 | 0.3805 |
| 11 | 22.046 | 1186.7 | 0.3306 | 26.642 | 1116.2 | 0.3368 | 33.452 | 1036.4 | 0.3533 |
| 12 | 21.625 | 1170.8 | 0.3080 | 26.197 | 1112.1 | 0.3137 | 33.190 | 1053.7 | 0.3298 |
| 13 | 21.151 | 1150.5 | 0.2885 | 25.702 | 1108.6 | 0.2938 | 32.882 | 1071.7 | 0.3093 |
| 14 | 20.609 | 1125.0 | 0.2716 | 25.138 | 1105.0 | 0.2765 | 32.509 | 1090.4 | 0.2914 |
| 15 | 19.967 | 1092.9 | 0.2567 | 24.463 | 1099.5 | 0.2614 | 32.022 | 1109.1 | 0.2756 |
| 16 | 19.206 | 1055.1 | 0.2436 | 23.626 | 1087.0 | 0.2480 | 31.361 | 1127.0 | 0.2615 |
| 17 | 18.259 | 1011.9 | 0.2323 | 22.531 | 1063.1 | 0.2363 | 30.408 | 1141.6 | 0.2491 |
| 18 | 16.912 | 966.4 | 0.2223 | 20.970 | 1029.5 | 0.2261 | 28.932 | 1150.4 | 0.2382 |
| 19 | 15.821 | 923.3 | 0.2138 | 19.610 | 988.9 | 0.2173 | 27.502 | 1143.1 | 0.2283 |
| 20 | 14.722 | 882.9 | 0.2065 | 18.209 | 945.4 | 0.2095 | 25.841 | 1116.5 | 0.2195 |
| 21 | 13.422 | 837.4 | 0.2001 | 16.515 | 891.7 | 0.2029 | 23.548 | 1057.5 | 0.2116 |
| 22 | 11.401 | 784.6 | 0.1946 | 14.034 | 833.1 | 0.1974 | 20.231 | 980.8 | 0.2051 |
| 23 | 9.037 | 728.7 | 0.1903 | 11.108 | 766.9 | 0.1929 | 16.135 | 883.2 | 0.1999 |
| 24 | 3.751 | 629.0 | 0.1875 | 4.629 | 643.2 | 0.1901 | 6.813 | 686.2 | 0.1968 |
| 25 | 2.181 | 600.0 | 0.1863 | 2.680 | 607.8 | 0.1889 | 3.915 | 630.5 | 0.1951 |

Table 4-82. LS1 Burnup and TH Feedback Parameters Assembly E8 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.357 | 592.3 | 0.7396 |
| 2 | 22.380 | 678.5 | 0.7396 |
| 3 | 29.125 | 684.5 | 0.719 |
| 4 | 32.136 | 697.1 | 0.6666 |
| 5 | 33.093 | 710.0 | 0.6047 |
| 6 | 33.284 | 729.6 | 0.5451 |
| 7 | 33.286 | 746.4 | 0.4933 |
| 8 | 33.321 | 767.1 | 0.4499 |
| 9 | 33.784 | 781.2 | 0.4129 |
| 10 | 33.719 | 795.6 | 0.3811 |
| 11 | 33.528 | 799.2 | 0.3539 |
| 12 | 33.268 | 806.5 | 0.3304 |
| 13 | 32.960 | 806.5 | 0.3099 |
| 14 | 32.585 | 799.2 | 0.2920 |
| 15 | 32.097 | 795.6 | 0.2761 |
| 16 | 31.434 | 788.4 | 0.2621 |
| 17 | 30.479 | 781.2 | 0.2496 |
| 18 | 29.001 | 774.1 | 0.2387 |
| 19 | 27.569 | 767.1 | 0.2289 |
| 20 | 25.904 | 753.3 | 0.2200 |
| 21 | 23.606 | 736.3 | 0.2121 |
| 22 | 20.281 | 710.0 | 0.2057 |
| 23 | 16.175 | 678.3 | 0.2004 |
| 24 | 6.829 | 607.4 | 0.1972 |
| 25 | 3.923 | 585.1 | 0.1955 |

Table 4-83. LS1 Burnup and TH Feedback Parameters Assembly E9

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.625 | 662.0 | 0.7396 | 2.694 | 670.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.919 | 1007.5 | 0.7396 | 9.806 | 1050.6 | 0.7396 |
| 3 | 0.000 | | 0.7148 | 7.950 | 1117.4 | 0.7148 | 13.109 | 1165.8 | 0.7120 |
| 4 | 0.000 | Data | 0.6552 | 8.864 | 1210.2 | 0.6552 | 14.454 | 1239.8 | 0.6501 |
| 5 | 0.000 | Not | 0.5845 | 8.990 | 1223.6 | 0.5845 | 14.604 | 1244.1 | 0.5783 |
| 6 | 0.000 | Required | 0.5189 | 8.829 | 1206.6 | 0.5189 | 14.367 | 1230.7 | 0.5126 |
| 7 | 0.000 | | 0.4651 | 8.634 | 1186.2 | 0.4651 | 14.092 | 1216.7 | 0.4591 |
| 8 | 0.000 | | 0.4220 | 8.474 | 1169.7 | 0.4220 | 13.854 | 1203.2 | 0.4163 |
| 9 | 0.000 | | 0.3865 | 8.466 | 1168.9 | 0.3865 | 13.836 | 1201.5 | 0.3810 |
| 10 | 0.000 | | 0.3565 | 8.334 | 1155.5 | 0.3565 | 13.638 | 1190.2 | 0.3512 |
| 11 | 0.000 | | 0.3311 | 8.186 | 1140.7 | 0.3311 | 13.425 | 1179.2 | 0.3260 |
| 12 | 0.000 | | 0.3095 | 8.022 | 1124.5 | 0.3095 | 13.199 | 1168.8 | 0.3045 |
| 13 | 0.000 | | 0.2908 | 7.843 | 1107.1 | 0.2908 | 12.960 | 1158.9 | 0.2858 |
| 14 | 0.000 | | 0.2744 | 7.643 | 1088.0 | 0.2744 | 12.697 | 1148.5 | 0.2694 |
| 15 | 0.000 | | 0.2601 | 7.411 | 1066.2 | 0.2601 | 12.393 | 1136.8 | 0.2550 |
| 16 | 0.000 | | 0.2475 | 7.134 | 1040.9 | 0.2475 | 12.024 | 1121.9 | 0.2422 |
| 17 | 0.000 | | 0.2365 | 6.772 | 1008.7 | 0.2365 | 11.530 | 1101.0 | 0.2308 |
| 18 | 0.000 | | 0.2269 | 6.161 | 956.8 | 0.2269 | 10.684 | 1064.8 | 0.2209 |
| 19 | 0.000 | | 0.2188 | 5.794 | 927.1 | 0.2188 | 10.111 | 1034.1 | 0.2124 |
| 20 | 0.000 | | 0.2117 | 5.468 | 901.4 | 0.2117 | 9.543 | 999.3 | 0.2048 |
| 21 | 0.000 | | 0.2054 | 5.133 | 875.9 | 0.2054 | 8.887 | 955.0 | 0.1983 |
| 22 | 0.000 | | 0.1998 | 4.433 | 825.0 | 0.1998 | 7.654 | 886.0 | 0.1926 |
| 23 | 0.000 | | 0.1954 | 3.587 | 767.6 | 0.1954 | 6.167 | 810.1 | 0.1881 |
| 24 | 0.000 | | 0.1924 | 1.449 | 639.5 | 0.1924 | 2.548 | 658.9 | 0.1849 |
| 25 | 0.000 | | 0.1912 | 0.862 | 607.8 | 0.1912 | 1.501 | 617.5 | 0.1837 |
| | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| Node | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.857 | 632.9 | 0.7396 | 4.278 | 604.2 | 0.7396 | 4.864 | 596.9 | 0.7396 |
| 2 | 14.040 | 861.7 | 0.7396 | 15.507 | 724.9 | 0.7396 | 17.448 | 688.7 | 0.7396 |
| 3 | 18.553 | 905.9 | 0.7190 | 20.420 | 744.2 | 0.7220 | 22.789 | 697.5 | 0.7253 |
| 4 | 20.503 | 955.1 | 0.6661 | 22.617 | 771.8 | 0.6731 | 25.201 | 711.0 | 0.6810 |
| 5 | 20.989 | 983.6 | 0.6039 | 23.300 | 794.5 | 0.6159 | 26.064 | 722.4 | 0.6291 |
| 6 | 20.947 | 1000.6 | 0.5448 | 23.439 | 815.9 | 0.5615 | 26.405 | 735.5 | 0.5804 |
| 7 | 20.767 | 1009.0 | 0.4938 | 23.419 | 835.4 | 0.5141 | 26.613 | 750.5 | 0.5380 |
| 8 | 20.557 | 1011.4 | 0.4508 | 23.352 | 853.2 | 0.4735 | 26.789 | 766.8 | 0.5018 |
| 9 | 20.605 | 1017.3 | 0.4141 | 23.560 | 873.7 | 0.4380 | 27.291 | 787.1 | 0.4700 |
| 10 | 20.339 | 1011.3 | 0.3826 | 23.400 | 887.5 | 0.4070 | 27.363 | 803.5 | 0.4414 |
| 11 | 20.017 | 1001.6 | 0.3559 | 23.180 | 901.0 | 0.3800 | 27.352 | 818.5 | 0.4160 |
| 12 | 19.648 | 989.1 | 0.3327 | 22.921 | 915.8 | 0.3566 | 27.283 | 832.5 | 0.3934 |
| 13 | 19.237 | 974.3 | 0.3126 | 22.618 | 930.6 | 0.3360 | 27.158 | 845.7 | 0.3729 |
| 14 | 18.778 | 957.7 | 0.2950 | 22.231 | 940.6 | 0.3177 | 26.947 | 859.1 | 0.3545 |
| 15 | 18.251 | 939.2 | 0.2795 | 21.722 | 943.2 | 0.3013 | 26.614 | 872.7 | 0.3379 |
| 16 | 17.627 | 918.6 | 0.2659 | 21.064 | 938.4 | 0.2866 | 26.125 | 885.9 | 0.3231 |
| 17 | 16.840 | 895.4 | 0.2538 | 20.199 | 927.6 | 0.2737 | 25.406 | 897.5 | 0.3099 |
| 18 | 15.663 | 870.0 | 0.2436 | 18.916 | 913.1 | 0.2628 | 24.233 | 906.4 | 0.2993 |
| 19 | 14.711 | 841.8 | 0.2343 | 17.810 | 892.5 | 0.2527 | 23.131 | 906.7 | 0.2885 |
| 20 | 13.723 | 811.7 | 0.2260 | 16.621 | 866.3 | 0.2435 | 21.818 | 896.7 | 0.2784 |
| 21 | 12.545 | 775.8 | 0.2183 | 15.140 | 828.4 | 0.2349 | 19.976 | 868.3 | 0.2685 |
| 22 | 10.672 | 734.1 | 0.2120 | 12.891 | 783.8 | 0.2282 | 17.188 | 827.7 | 0.2612 |
| 23 | 8.459 | 689.4 | 0.2067 | 10.175 | 727.9 | 0.2222 | 13.629 | 768.0 | 0.2543 |
| 24 | 3.473 | 611.9 | 0.2033 | 4.158 | 625.0 | 0.2183 | 5.550 | 639.4 | 0.2494 |
| 25 | 1.999 | 589.1 | 0.2009 | 2.360 | 595.3 | 0.2149 | 3.082 | 602.0 | 0.2441 |

Table 4-83. LS1 Burnup and TH Feedback Parameters Assembly E9 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 4.877 | 602.2 | 0.7396 |
| 2 | 17.493 | 715.7 | 0.7396 |
| 3 | 22.848 | 739.7 | 0.7254 |
| 4 | 25.268 | 767.1 | 0.6811 |
| 5 | 26.137 | 788.4 | 0.6295 |
| 6 | 26.484 | 810.2 | 0.5808 |
| 7 | 26.696 | 825.1 | 0.5385 |
| 8 | 26.877 | 844.2 | 0.5023 |
| 9 | 27.383 | 859.8 | 0.4705 |
| 10 | 27.456 | 863.7 | 0.4419 |
| 11 | 27.446 | 867.7 | 0.4165 |
| 12 | 27.377 | 867.7 | 0.3938 |
| 13 | 27.251 | 863.7 | 0.3734 |
| 14 | 27.040 | 863.7 | 0.3549 |
| 15 | 26.705 | 855.8 | 0.3383 |
| 16 | 26.213 | 844.2 | 0.3234 |
| 17 | 25.492 | 836.5 | 0.3103 |
| 18 | 24.315 | 821.4 | 0.2995 |
| 19 | 23.209 | 806.5 | 0.2888 |
| 20 | 21.890 | 784.8 | 0.2787 |
| 21 | 20.041 | 760.2 | 0.2688 |
| 22 | 17.244 | 729.6 | 0.2614 |
| 23 | 13.673 | 690.8 | 0.2546 |
| 24 | 5.568 | 613.1 | 0.2497 |
| 25 | 3.095 | 599.0 | 0.2444 |

Table 4-84. LS1 Burnup and TH Feedback Parameters Assembly E10

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.740 | 669.7 | 0.7396 | 2.909 | 681.3 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.328 | 1047.8 | 0.7396 | 10.573 | 1110.9 | 0.7396 |
| 3 | 0.000 | | 0.7091 | 8.468 | 1169.1 | 0.7091 | 14.003 | 1230.1 | 0.7055 |
| 4 | 0.000 | Data | 0.6433 | 9.358 | 1263.6 | 0.6433 | 15.265 | 1297.1 | 0.6372 |
| 5 | 0.000 | Not | 0.5688 | 9.392 | 1267.3 | 0.5688 | 15.253 | 1288.6 | 0.5616 |
| 6 | 0.000 | Required | 0.5025 | 9.144 | 1240.2 | 0.5025 | 14.877 | 1265.4 | 0.4955 |
| 7 | 0.000 | | 0.4498 | 8.889 | 1212.9 | 0.4498 | 14.502 | 1243.9 | 0.4432 |
| 8 | 0.000 | | 0.4079 | 8.694 | 1192.4 | 0.4079 | 14.212 | 1227.2 | 0.4016 |
| 9 | 0.000 | | 0.3734 | 8.664 | 1189.3 | 0.3734 | 14.166 | 1224.4 | 0.3674 |
| 10 | 0.000 | | 0.3443 | 8.512 | 1173.6 | 0.3443 | 13.942 | 1211.8 | 0.3386 |
| 11 | 0.000 | | 0.3198 | 8.340 | 1156.1 | 0.3198 | 13.702 | 1200.1 | 0.3143 |
| 12 | 0.000 | | 0.2989 | 8.151 | 1137.2 | 0.2989 | 13.448 | 1189.0 | 0.2935 |
| 13 | 0.000 | | 0.2808 | 7.950 | 1117.4 | 0.2808 | 13.182 | 1178.1 | 0.2754 |
| 14 | 0.000 | | 0.2652 | 7.734 | 1096.6 | 0.2652 | 12.901 | 1167.2 | 0.2597 |
| 15 | 0.000 | | 0.2514 | 7.497 | 1074.2 | 0.2514 | 12.590 | 1154.9 | 0.2458 |
| 16 | 0.000 | | 0.2393 | 7.224 | 1049.0 | 0.2393 | 12.227 | 1140.2 | 0.2335 |
| 17 | 0.000 | | 0.2287 | 6.875 | 1017.7 | 0.2287 | 11.747 | 1119.1 | 0.2226 |
| 18 | 0.000 | | 0.2195 | 6.279 | 966.6 | 0.2195 | 10.914 | 1081.9 | 0.2130 |
| 19 | 0.000 | | 0.2115 | 5.921 | 937.2 | 0.2115 | 10.339 | 1049.0 | 0.2047 |
| 20 | 0.000 | | 0.2046 | 5.591 | 911.0 | 0.2046 | 9.750 | 1011.2 | 0.1975 |
| 21 | 0.000 | | 0.1984 | 5.240 | 884.0 | 0.1984 | 9.056 | 963.4 | 0.1912 |
| 22 | 0.000 | | 0.1931 | 4.516 | 830.9 | 0.1931 | 7.777 | 891.0 | 0.1858 |
| 23 | 0.000 | | 0.1889 | 3.647 | 771.5 | 0.1889 | 6.251 | 812.8 | 0.1815 |
| 24 | 0.000 | | 0.1859 | 1.473 | 640.8 | 0.1859 | 2.580 | 659.6 | 0.1785 |
| 25 | 0.000 | | 0.1849 | 0.878 | 609.4 | 0.1849 | 1.522 | 618.0 | 0.1774 |
| | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| Node | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 4.211 | 642.0 | 0.7396 | 4.984 | 642.9 | 0.7396 | 6.472 | 656.9 | 0.7396 |
| 2 | 15.297 | 904.2 | 0.7396 | 17.989 | 891.6 | 0.7396 | 22.689 | 912.6 | 0.7396 |
| 3 | 20.243 | 971.2 | 0.7129 | 23.787 | 953.5 | 0.7155 | 29.429 | 933.1 | 0.7176 |
| 4 | 22.402 | 1050.8 | 0.6532 | 26.452 | 1028.3 | 0.6587 | 32.380 | 957.4 | 0.6639 |
| 5 | 22.900 | 1099.2 | 0.5849 | 27.223 | 1071.3 | 0.5929 | 33.253 | 966.2 | 0.6014 |
| 6 | 22.792 | 1125.6 | 0.5216 | 27.228 | 1089.6 | 0.5304 | 33.353 | 974.4 | 0.5420 |
| 7 | 22.558 | 1139.7 | 0.4683 | 27.025 | 1094.7 | 0.4768 | 33.275 | 985.4 | 0.4904 |
| 8 | 22.382 | 1151.3 | 0.4244 | 26.864 | 1097.2 | 0.4323 | 33.267 | 999.1 | 0.4470 |
| 9 | 22.527 | 1171.0 | 0.3878 | 27.066 | 1106.6 | 0.3950 | 33.704 | 1020.5 | 0.4102 |
| 10 | 22.299 | 1170.5 | 0.3568 | 26.820 | 1103.6 | 0.3635 | 33.625 | 1036.0 | 0.3786 |
| 11 | 21.958 | 1160.1 | 0.3303 | 26.449 | 1098.7 | 0.3366 | 33.424 | 1052.0 | 0.3515 |
| 12 | 21.538 | 1143.2 | 0.3078 | 26.002 | 1094.2 | 0.3137 | 33.151 | 1068.7 | 0.3282 |
| 13 | 21.066 | 1122.5 | 0.2884 | 25.523 | 1093.1 | 0.2938 | 32.844 | 1085.5 | 0.3078 |
| 14 | 20.547 | 1099.1 | 0.2715 | 25.032 | 1097.7 | 0.2767 | 32.513 | 1101.3 | 0.2899 |
| 15 | 19.959 | 1072.6 | 0.2567 | 24.501 | 1107.1 | 0.2616 | 32.125 | 1115.7 | 0.2741 |
| 16 | 19.254 | 1040.7 | 0.2437 | 23.827 | 1112.3 | 0.2483 | 31.580 | 1128.8 | 0.2600 |
| 17 | 18.347 | 1002.3 | 0.2323 | 22.861 | 1102.5 | 0.2364 | 30.724 | 1140.1 | 0.2475 |
| 18 | 17.032 | 960.8 | 0.2223 | 21.386 | 1076.3 | 0.2261 | 29.320 | 1147.5 | 0.2366 |
| 19 | 15.967 | 920.6 | 0.2138 | 20.082 | 1038.4 | 0.2171 | 27.942 | 1139.8 | 0.2266 |
| 20 | 14.897 | 882.8 | 0.2062 | 18.728 | 995.2 | 0.2091 | 26.331 | 1113.6 | 0.2177 |
| 21 | 13.618 | 839.0 | 0.1996 | 17.055 | 938.4 | 0.2022 | 24.065 | 1055.3 | 0.2098 |
| 22 | 11.605 | 787.3 | 0.1941 | 14.569 | 874.8 | 0.1965 | 20.754 | 979.7 | 0.2033 |
| 23 | 9.221 | 731.0 | 0.1896 | 11.579 | 800.0 | 0.1918 | 16.606 | 883.2 | 0.1979 |
| 24 | 3.836 | 629.9 | 0.1869 | 4.837 | 655.0 | 0.1890 | 7.035 | 687.0 | 0.1949 |
| 25 | 2.231 | 600.3 | 0.1856 | 2.798 | 614.0 | 0.1876 | 4.043 | 631.0 | 0.1932 |

Table 4-84. LS1 Burnup and TH Feedback Parameters Assembly E10 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 6.486 | 605.5 | 0.7396 |
| 2 | 22.731 | 704.4 | 0.7396 |
| 3 | 29.480 | 713.2 | 0.7177 |
| 4 | 32.437 | 733.0 | 0.6641 |
| 5 | 33.315 | 749.8 | 0.6017 |
| 6 | 33.421 | 770.6 | 0.5424 |
| 7 | 33.349 | 791.9 | 0.4909 |
| 8 | 33.346 | 810.2 | 0.4476 |
| 9 | 33.788 | 828.9 | 0.4108 |
| 10 | 33.712 | 840.3 | 0.3793 |
| 11 | 33.512 | 844.2 | 0.3521 |
| 12 | 33.240 | 848.1 | 0.3287 |
| 13 | 32.932 | 844.2 | 0.3084 |
| 14 | 32.599 | 836.5 | 0.2905 |
| 15 | 32.209 | 828.9 | 0.2747 |
| 16 | 31.663 | 825.1 | 0.2605 |
| 17 | 30.804 | 813.9 | 0.2480 |
| 18 | 29.398 | 806.5 | 0.2370 |
| 19 | 28.016 | 792.0 | 0.2271 |
| 20 | 26.402 | 781.2 | 0.2182 |
| 21 | 24.130 | 760.1 | 0.2102 |
| 22 | 20.811 | 733.0 | 0.2037 |
| 23 | 16.652 | 697.1 | 0.1984 |
| 24 | 7.054 | 616.0 | 0.1953 |
| 25 | 4.053 | 590.6 | 0.1935 |

Table 4-85. LS1 Burnup and TH Feedback Parameters Assembly E11

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|--------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.770 | 671.7 | 0.7396 | 2.856 | 672.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.436 | 1058.6 | 0.7396 | 10.393 | 1062.1 | 0.7396 |
| 3 | 0.000 | | 0.7070 | 8.587 | 1181.3 | 0.7070 | 13.793 | 1173.7 | 0.7069 |
| 4 | 0.000 | Data | 0.6396 | 9.459 | 1274.7 | 0.6396 | 15.073 | 1244.1 | 0.6399 |
| 5 | 0.000 | Not | 0.5641 | 9.479 | 1276.9 | 0.5641 | 15.097 | 1244.8 | 0.5651 |
| 6 | 0.000 | Required | 0.4978 | 9.229 | 1249.4 | 0.4978 | 14.751 | 1227.9 | 0.4992 |
| 7 | 0.000 | | 0.4454 | 8.975 | 1222.0 | 0.4454 | 14.399 | 1210.8 | 0.4468 |
| 8 | 0.000 | | 0.4038 | 8.786 | 1202.0 | 0.4038 | 14.126 | 1196.4 | 0.4051 |
| 9 | 0.000 | | 0.3695 | 8.766 | 1199.9 | 0.3695 | 14.098 | 1195.0 | 0.3706 |
| 10 | 0.000 | | 0.3406 | 8.625 | 1185.3 | 0.3406 | 13.891 | 1183.8 | 0.3416 |
| 11 | 0.000 | | 0.3163 | 8.467 | 1169.0 | 0.3163 | 13.670 | 1173.2 | 0.3170 |
| 12 | 0.000 | | 0.2955 | 8.295 | 1151.6 | 0.2955 | 13.435 | 1162.7 | 0.2961 |
| 13 | 0.000 | | 0.2776 | 8.110 | 1133.1 | 0.2776 | 13.187 | 1152.3 | 0.2780 |
| 14 | 0.000 | | 0.2619 | 7.904 | 1113.0 | 0.2619 | 12.917 | 1141.8 | 0.2621 |
| 15 | 0.000 | | 0.2481 | 7.665 | 1090.0 | 0.2481 | 12.604 | 1129.8 | 0.2481 |
| 16 | 0.000 | | 0.2361 | 7.382 | 1063.5 | 0.2361 | 12.230 | 1115.2 | 0.2356 |
| 17 | 0.000 | | 0.2254 | 7.017 | 1030.4 | 0.2254 | 11.740 | 1095.6 | 0.2247 |
| 18 | 0.000 | | 0.2162 | 6.398 | 976.6 | 0.2162 | 10.912 | 1063.5 | 0.2151 |
| 19 | 0.000 | | 0.2083 | 6.016 | 944.9 | 0.2083 | 10.357 | 1037.6 | 0.2068 |
| 20 | 0.000 | | 0.2014 | 5.665 | 916.8 | 0.2014 | 9.798 | 1007.5 | 0.1994 |
| 21 | 0.000 | | 0.1953 | 5.301 | 888.6 | 0.1953 | 9.135 | 965.8 | 0.1929 |
| 22 | 0.000 | | 0.1900 | 4.571 | 834.8 | 0.1900 | 7.876 | 896.5 | 0.1873 |
| 23 | 0.000 | | 0.1857 | 3.698 | 774.9 | 0.1857 | 6.349 | 818.1 | 0.1829 |
| 24 | 0.000 | | 0.1829 | 1.496 | 642.0 | 0.1829 | 2.625 | 661.6 | 0.1799 |
| 25 | 0.000 | | 0.1818 | 0.892 | 609.4 | 0.1818 | 1.546 | 618.9 | 0.1788 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.907 | 625.6 | 0.7396 | 4.352 | 606.8 | 0.7396 | 5.065 | 605.1 | 0.7396 |
| 2 | 14.245 | 829.8 | 0.7396 | 15.800 | 735.9 | 0.7396 | 18.150 | 718.6 | 0.7396 |
| 3 | 18.770 | 869.8 | 0.7156 | 20.752 | 756.9 | 0.7191 | 23.604 | 728.1 | 0.7231 |
| 4 | 20.636 | 915.4 | 0.6592 | 22.869 | 785.4 | 0.6673 | 25.947 | 742.8 | 0.6765 |
| 5 | 21.014 | 944.1 | 0.5955 | 23.432 | 807.1 | 0.6088 | 26.679 | 754.0 | 0.6239 |
| 6 | 20.911 | 964.4 | 0.5373 | 23.482 | 825.5 | 0.5550 | 26.912 | 766.4 | 0.5756 |
| 7 | 20.734 | 979.3 | 0.4882 | 23.426 | 840.4 | 0.5089 | 27.053 | 779.9 | 0.5339 |
| 8 | 20.622 | 993.2 | 0.4466 | 23.404 | 851.6 | 0.4691 | 27.233 | 794.0 | 0.4975 |
| 9 | 20.862 | 1016.9 | 0.4110 | 23.737 | 863.4 | 0.4338 | 27.810 | 811.4 | 0.4646 |
| 10 | 20.825 | 1032.2 | 0.3801 | 23.727 | 866.8 | 0.4026 | 27.977 | 824.2 | 0.4348 |
| 11 | 20.705 | 1041.4 | 0.3534 | 23.623 | 868.9 | 0.3753 | 28.042 | 836.7 | 0.4082 |
| 12 | 20.487 | 1043.0 | 0.3302 | 23.419 | 870.7 | 0.3516 | 28.009 | 849.5 | 0.3846 |
| 13 | 20.194 | 1038.9 | 0.3099 | 23.144 | 873.0 | 0.3308 | 27.907 | 862.7 | 0.3637 |
| 14 | 19.826 | 1029.9 | 0.2922 | 22.797 | 875.7 | 0.3125 | 27.735 | 876.2 | 0.3452 |
| 15 | 19.365 | 1016.6 | 0.2764 | 22.357 | 878.5 | 0.2964 | 27.472 | 890.2 | 0.3286 |
| 16 | 18.797 | 999.4 | 0.2624 | 21.804 | 880.4 | 0.2822 | 27.092 | 904.0 | 0.3140 |
| 17 | 18.067 | 978.6 | 0.2502 | 21.076 | 880.7 | 0.2698 | 26.523 | 917.0 | 0.3011 |
| 18 | 16.950 | 954.1 | 0.2398 | 19.953 | 879.9 | 0.2595 | 25.537 | 928.3 | 0.2905 |
| 19 | 16.035 | 924.6 | 0.2304 | 19.006 | 875.7 | 0.2498 | 24.628 | 931.5 | 0.2799 |
| 20 | 15.038 | 889.9 | 0.2217 | 17.952 | 868.4 | 0.2410 | 23.482 | 923.8 | 0.2699 |
| 21 | 13.773 | 844.6 | 0.2138 | 16.521 | 847.3 | 0.2327 | 21.706 | 895.8 | 0.2604 |
| 22 | 11.744 | 790.1 | 0.2074 | 14.206 | 812.3 | 0.2263 | 18.861 | 854.4 | 0.2532 |
| 23 | 9.295 | 729.5 | 0.2019 | 11.259 | 754.9 | 0.2203 | 15.046 | 791.0 | 0.2466 |
| 24 | 3.811 | 626.1 | 0.1985 | 4.600 | 634.7 | 0.2163 | 6.158 | 649.0 | 0.2421 |
| 25 | 2.181 | 596.4 | 0.1960 | 2.592 | 599.8 | 0.2125 | 3.408 | 607.1 | 0.2371 |

Table 4-85. LS1 Burnup and TH Feedback Parameters Assembly E11 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.089 | 639.5 | 0.7396 |
| 2 | 18.229 | 855.3 | 0.7396 |
| 3 | 23.706 | 900.0 | 0.7232 |
| 4 | 26.061 | 951.1 | 0.6766 |
| 5 | 26.799 | 977.8 | 0.6241 |
| 6 | 27.035 | 991.4 | 0.5758 |
| 7 | 27.177 | 996.0 | 0.5341 |
| 8 | 27.358 | 1000.6 | 0.4976 |
| 9 | 27.939 | 1019.3 | 0.4647 |
| 10 | 28.107 | 1024.0 | 0.4348 |
| 11 | 28.172 | 1024.0 | 0.4082 |
| 12 | 28.138 | 1019.3 | 0.3846 |
| 13 | 28.035 | 1014.6 | 0.3637 |
| 14 | 27.862 | 1009.9 | 0.3451 |
| 15 | 27.596 | 996.0 | 0.3286 |
| 16 | 27.211 | 973.3 | 0.3140 |
| 17 | 26.636 | 946.7 | 0.3010 |
| 18 | 25.643 | 916.7 | 0.2904 |
| 19 | 24.727 | 887.8 | 0.2799 |
| 20 | 23.573 | 855.8 | 0.2699 |
| 21 | 21.788 | 821.4 | 0.2604 |
| 22 | 18.931 | 777.7 | 0.2531 |
| 23 | 15.103 | 733.0 | 0.2465 |
| 24 | 6.182 | 630.3 | 0.2420 |
| 25 | 3.422 | 601.8 | 0.2370 |

Table 4-86. LS1 Burnup and TH Feedback Parameters Assembly E12

| Node | Datapoint 5 (BOC Cy 6) | | | Datapoint 6 (196.1 Cy 6) | | | Statepoint 7 (BOC Cy 7) | | |
|------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 6 | 0.00 Cy 6 | 0.00 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 196.1 Cy 6 | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.669 | 664.9 | 0.7396 | 2.755 | 672.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 6.043 | 1019.6 | 0.7396 | 10.004 | 1062.8 | 0.7396 |
| 3 | 0.000 | | 0.7111 | 8.101 | 1132.3 | 0.7111 | 13.359 | 1182.4 | 0.7089 |
| 4 | 0.000 | Data | 0.6480 | 9.010 | 1225.8 | 0.6480 | 14.690 | 1255.8 | 0.6438 |
| 5 | 0.000 | Not | 0.5755 | 9.116 | 1237.2 | 0.5755 | 14.778 | 1252.6 | 0.5709 |
| 6 | 0.000 | Required | 0.5100 | 8.959 | 1220.3 | 0.5100 | 14.497 | 1230.7 | 0.5058 |
| 7 | 0.000 | | 0.4570 | 8.798 | 1203.3 | 0.4570 | 14.214 | 1209.4 | 0.4534 |
| 8 | 0.000 | | 0.4143 | 8.702 | 1193.2 | 0.4143 | 14.022 | 1192.9 | 0.4113 |
| 9 | 0.000 | | 0.3787 | 8.777 | 1201.1 | 0.3787 | 14.080 | 1190.1 | 0.3762 |
| 10 | 0.000 | | 0.3484 | 8.730 | 1196.2 | 0.3484 | 13.961 | 1177.9 | 0.3465 |
| 11 | 0.000 | | 0.3227 | 8.659 | 1188.8 | 0.3227 | 13.824 | 1166.8 | 0.3213 |
| 12 | 0.000 | | 0.3006 | 8.561 | 1178.6 | 0.3006 | 13.661 | 1156.1 | 0.2995 |
| 13 | 0.000 | | 0.2815 | 8.433 | 1165.5 | 0.2815 | 13.470 | 1145.7 | 0.2807 |
| 14 | 0.000 | | 0.2647 | 8.262 | 1148.3 | 0.2647 | 13.235 | 1135.3 | 0.2642 |
| 15 | 0.000 | | 0.2501 | 8.025 | 1124.8 | 0.2501 | 12.926 | 1123.7 | 0.2496 |
| 16 | 0.000 | | 0.2372 | 7.716 | 1094.9 | 0.2372 | 12.524 | 1108.9 | 0.2368 |
| 17 | 0.000 | | 0.2261 | 7.297 | 1055.7 | 0.2261 | 11.972 | 1088.1 | 0.2256 |
| 18 | 0.000 | | 0.2165 | 6.601 | 993.9 | 0.2165 | 11.046 | 1053.1 | 0.2158 |
| 19 | 0.000 | | 0.2084 | 6.145 | 955.5 | 0.2084 | 10.383 | 1022.6 | 0.2073 |
| 20 | 0.000 | | 0.2014 | 5.733 | 922.2 | 0.2014 | 9.730 | 988.3 | 0.1998 |
| 21 | 0.000 | | 0.1953 | 5.322 | 890.2 | 0.1953 | 9.003 | 945.2 | 0.1934 |
| 22 | 0.000 | | 0.1899 | 4.563 | 834.2 | 0.1899 | 7.722 | 878.4 | 0.1878 |
| 23 | 0.000 | | 0.1857 | 3.686 | 774.1 | 0.1857 | 6.220 | 804.9 | 0.1833 |
| 24 | 0.000 | | 0.1828 | 1.500 | 642.3 | 0.1828 | 2.584 | 657.5 | 0.1804 |
| 25 | 0.000 | | 0.1817 | 0.898 | 609.7 | 0.1817 | 1.529 | 616.8 | 0.1792 |
| Node | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | | Statepoint 10 (BOC Cy 8) | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 |
| 1 | 3.899 | 631.6 | 0.7396 | 4.339 | 606.2 | 0.7396 | 5.348 | 624.5 | 0.7396 |
| 2 | 14.211 | 859.4 | 0.7396 | 15.801 | 740.3 | 0.7396 | 19.107 | 792.6 | 0.7396 |
| 3 | 18.848 | 909.5 | 0.7141 | 20.977 | 773.5 | 0.7178 | 25.029 | 809.8 | 0.7220 |
| 4 | 20.878 | 966.8 | 0.6560 | 23.375 | 816.5 | 0.6646 | 27.720 | 831.2 | 0.6739 |
| 5 | 21.386 | 1003.0 | 0.5901 | 24.159 | 850.5 | 0.6043 | 28.663 | 843.0 | 0.6189 |
| 6 | 21.383 | 1027.9 | 0.5301 | 24.355 | 875.9 | 0.5488 | 28.999 | 853.6 | 0.5674 |
| 7 | 21.301 | 1046.2 | 0.4804 | 24.409 | 893.7 | 0.5015 | 29.203 | 865.1 | 0.5228 |
| 8 | 21.269 | 1061.1 | 0.4391 | 24.471 | 906.2 | 0.4611 | 29.431 | 878.0 | 0.4836 |
| 9 | 21.523 | 1079.6 | 0.4036 | 24.629 | 920.3 | 0.4253 | 30.025 | 896.6 | 0.4484 |
| 10 | 21.420 | 1081.1 | 0.3725 | 24.761 | 925.1 | 0.3935 | 30.140 | 911.4 | 0.4167 |
| 11 | 21.205 | 1073.7 | 0.3455 | 24.560 | 927.0 | 0.3658 | 30.121 | 926.4 | 0.3888 |
| 12 | 20.903 | 1060.6 | 0.3222 | 24.259 | 927.2 | 0.3417 | 30.007 | 942.0 | 0.3643 |
| 13 | 20.553 | 1045.8 | 0.3022 | 23.901 | 926.1 | 0.3208 | 29.831 | 957.5 | 0.3429 |
| 14 | 20.279 | 1042.3 | 0.2857 | 23.596 | 921.8 | 0.3034 | 29.695 | 972.2 | 0.3244 |
| 15 | 20.417 | 1084.2 | 0.2739 | 23.646 | 909.9 | 0.2898 | 29.849 | 981.3 | 0.3090 |
| 16 | 19.993 | 1082.1 | 0.2605 | 23.135 | 898.2 | 0.2756 | 29.483 | 994.2 | 0.2940 |
| 17 | 19.069 | 1047.1 | 0.2474 | 22.106 | 884.3 | 0.2622 | 28.609 | 1008.1 | 0.2801 |
| 18 | 17.668 | 1004.3 | 0.2362 | 20.575 | 867.5 | 0.2510 | 27.230 | 1022.0 | 0.2685 |
| 19 | 16.518 | 962.3 | 0.2267 | 19.282 | 849.3 | 0.2411 | 26.092 | 1036.4 | 0.2562 |
| 20 | 15.309 | 916.6 | 0.2180 | 17.990 | 839.0 | 0.2325 | 24.809 | 1037.3 | 0.2488 |
| 21 | 13.895 | 863.4 | 0.2101 | 16.486 | 827.9 | 0.2250 | 23.126 | 1020.7 | 0.2409 |
| 22 | 11.813 | 805.5 | 0.2039 | 14.552 | 846.2 | 0.2211 | 20.609 | 968.5 | 0.2352 |
| 23 | 9.365 | 742.2 | 0.1986 | 11.788 | 807.7 | 0.2166 | 16.830 | 884.4 | 0.2296 |
| 24 | 3.879 | 632.1 | 0.1953 | 4.913 | 658.2 | 0.2133 | 7.114 | 687.2 | 0.2256 |
| 25 | 2.244 | 600.6 | 0.1931 | 2.820 | 614.9 | 0.2105 | 4.082 | 632.0 | 0.2231 |

Table 4-86. LS1 Burnup and TH Feedback Parameters Assembly E12 (Continued)

| Statepoint 11 (3.67 EFPD Cy 8) | | | |
|--------------------------------|-----------|-----------|----------------------|
| Node | Burnup | Fuel | Mod. Dens. |
| No. | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 5.360 | 598.9 | 0.7396 |
| 2 | 19.146 | 693.2 | 0.7396 |
| 3 | 25.078 | 706.7 | 0.7221 |
| 4 | 27.776 | 729.6 | 0.6741 |
| 5 | 28.725 | 749.8 | 0.6192 |
| 6 | 29.066 | 767.1 | 0.5678 |
| 7 | 29.275 | 784.8 | 0.5232 |
| 8 | 29.506 | 795.6 | 0.4842 |
| 9 | 30.106 | 817.6 | 0.4489 |
| 10 | 30.223 | 825.1 | 0.4173 |
| 11 | 30.204 | 825.1 | 0.3894 |
| 12 | 30.089 | 821.4 | 0.3649 |
| 13 | 29.913 | 821.4 | 0.3434 |
| 14 | 29.775 | 813.9 | 0.3250 |
| 15 | 29.926 | 802.9 | 0.3095 |
| 16 | 29.557 | 792.0 | 0.2944 |
| 17 | 28.679 | 777.7 | 0.2805 |
| 18 | 27.296 | 763.6 | 0.2689 |
| 19 | 26.154 | 749.8 | 0.2586 |
| 20 | 24.868 | 739.7 | 0.2492 |
| 21 | 23.178 | 716.5 | 0.2413 |
| 22 | 20.654 | 694.0 | 0.2356 |
| 23 | 16.865 | 663.0 | 0.2299 |
| 24 | 7.129 | 604.6 | 0.2259 |
| 25 | 4.089 | 582.3 | 0.2234 |

Table 4-87. LS1 Burnup and TH Feedback Parameters Assembly F1

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.476 | 653.0 | 0.7396 | 2.015 | 616.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.479 | 970.2 | 0.7396 | 7.501 | 794.9 | 0.7396 |
| 3 | 0.000 | | 0.7168 | 7.527 | 1083.1 | 0.7168 | 10.466 | 869.2 | 0.7198 |
| 4 | 0.000 | Data | 0.6577 | 8.612 | 1191.5 | 0.6577 | 12.094 | 941.6 | 0.6658 |
| 5 | 0.000 | Not | 0.5853 | 8.909 | 1223.1 | 0.5853 | 12.608 | 972.3 | 0.6009 |
| 6 | 0.000 | Required | 0.5175 | 8.862 | 1218.1 | 0.5175 | 12.625 | 981.6 | 0.5399 |
| 7 | 0.000 | | 0.4622 | 8.746 | 1205.7 | 0.4622 | 12.523 | 983.6 | 0.4891 |
| 8 | 0.000 | | 0.4182 | 8.659 | 1196.5 | 0.4182 | 12.456 | 986.6 | 0.4470 |
| 9 | 0.000 | | 0.3814 | 8.789 | 1210.2 | 0.3814 | 12.709 | 1004.7 | 0.4108 |
| 10 | 0.000 | | 0.3502 | 8.638 | 1194.3 | 0.3502 | 12.572 | 1006.8 | 0.3793 |
| 11 | 0.000 | | 0.3241 | 8.409 | 1170.4 | 0.3241 | 12.375 | 1011.6 | 0.3527 |
| 12 | 0.000 | | 0.3020 | 8.132 | 1142.2 | 0.3020 | 12.350 | 1050.3 | 0.3320 |
| 13 | 0.000 | | 0.2832 | 7.822 | 1111.5 | 0.2832 | 12.989 | 1210.5 | 0.3186 |
| 14 | 0.000 | | 0.2672 | 7.480 | 1078.6 | 0.2672 | 12.861 | 1249.9 | 0.2992 |
| 15 | 0.000 | | 0.2535 | 7.095 | 1042.8 | 0.2535 | 12.349 | 1226.4 | 0.2804 |
| 16 | 0.000 | | 0.2417 | 6.651 | 1003.1 | 0.2417 | 11.651 | 1180.6 | 0.2642 |
| 17 | 0.000 | | 0.2317 | 6.102 | 956.3 | 0.2317 | 10.746 | 1119.3 | 0.2507 |
| 18 | 0.000 | | 0.2235 | 5.300 | 892.0 | 0.2235 | 9.433 | 1037.1 | 0.2397 |
| 19 | 0.000 | | 0.2167 | 4.769 | 852.0 | 0.2167 | 8.503 | 977.4 | 0.2306 |
| 20 | 0.000 | | 0.2110 | 4.329 | 820.3 | 0.2110 | 7.705 | 927.0 | 0.2231 |
| 21 | 0.000 | | 0.2060 | 3.945 | 793.6 | 0.2060 | 6.981 | 881.7 | 0.2166 |
| 22 | 0.000 | | 0.2017 | 3.307 | 751.3 | 0.2017 | 5.835 | 818.3 | 0.2112 |
| 23 | 0.000 | | 0.1982 | 2.604 | 707.2 | 0.1982 | 4.569 | 753.6 | 0.2069 |
| 24 | 0.000 | | 0.1956 | 1.007 | 616.0 | 0.1956 | 1.797 | 634.3 | 0.2041 |
| 25 | 0.000 | | 0.1957 | 0.653 | 597.1 | 0.1957 | 1.142 | 606.6 | 0.2034 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| No. | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.215 | 636.8 | 0.7396 | 3.237 | 632.1 | 0.7396 | | | |
| 2 | 11.908 | 883.6 | 0.7396 | 11.989 | 862.0 | 0.7396 | | | |
| 3 | 16.297 | 945.9 | 0.7227 | 16.403 | 913.9 | 0.7228 | | | |
| 4 | 18.440 | 990.4 | 0.6727 | 18.560 | 974.3 | 0.6729 | | | |
| 5 | 19.076 | 1001.3 | 0.6123 | 19.203 | 1006.1 | 0.6127 | | | |
| 6 | 19.137 | 1005.2 | 0.5551 | 19.268 | 1024.8 | 0.5555 | | | |
| 7 | 19.095 | 1010.6 | 0.5062 | 19.228 | 1034.3 | 0.5065 | | | |
| 8 | 19.114 | 1018.4 | 0.4646 | 19.249 | 1043.9 | 0.4648 | | | |
| 9 | 19.564 | 1036.6 | 0.4282 | 19.703 | 1063.3 | 0.4283 | | | |
| 10 | 19.547 | 1047.8 | 0.3962 | 19.687 | 1068.2 | 0.3964 | | | |
| 11 | 19.465 | 1058.7 | 0.3689 | 19.606 | 1073.2 | 0.3691 | | | |
| 12 | 19.530 | 1067.3 | 0.3463 | 19.671 | 1073.2 | 0.3464 | | | |
| 13 | 20.179 | 1068.3 | 0.3289 | 20.318 | 1063.3 | 0.3289 | | | |
| 14 | 20.165 | 1079.3 | 0.3092 | 20.303 | 1058.4 | 0.3092 | | | |
| 15 | 19.810 | 1094.6 | 0.2908 | 19.945 | 1043.9 | 0.2908 | | | |
| 16 | 19.262 | 1109.5 | 0.2747 | 19.393 | 1024.8 | 0.2748 | | | |
| 17 | 18.447 | 1118.5 | 0.2610 | 18.573 | 1001.5 | 0.2611 | | | |
| 18 | 17.084 | 1113.5 | 0.2495 | 17.204 | 974.3 | 0.2496 | | | |
| 19 | 15.951 | 1093.3 | 0.2393 | 16.064 | 943.6 | 0.2393 | | | |
| 20 | 14.775 | 1056.8 | 0.2301 | 14.880 | 909.7 | 0.2301 | | | |
| 21 | 13.425 | 999.1 | 0.2220 | 13.518 | 861.4 | 0.2220 | | | |
| 22 | 11.298 | 915.5 | 0.2153 | 11.378 | 812.0 | 0.2153 | | | |
| 23 | 8.818 | 822.2 | 0.2099 | 8.880 | 748.5 | 0.2100 | | | |
| 24 | 3.538 | 659.0 | 0.2067 | 3.564 | 635.7 | 0.2067 | | | |
| 25 | 2.206 | 620.5 | 0.2053 | 2.222 | 607.2 | 0.2054 | | | |

Table 4-88. LS1 Burnup and TH Feedback Parameters Assembly F2

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.324 | 642.9 | 0.7396 | 2.123 | 645.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.897 | 916.9 | 0.7396 | 7.872 | 931.7 | 0.7396 |
| 3 | 0.000 | | 0.7260 | 6.748 | 1011.6 | 0.7260 | 11.033 | 1060.8 | 0.7238 |
| 4 | 0.000 | Data | 0.6779 | 7.834 | 1112.7 | 0.6779 | 12.860 | 1185.2 | 0.6725 |
| 5 | 0.000 | Not | 0.6147 | 8.259 | 1155.1 | 0.6147 | 13.490 | 1222.2 | 0.6061 |
| 6 | 0.000 | Required | 0.5499 | 8.344 | 1163.7 | 0.5499 | 13.531 | 1214.1 | 0.5398 |
| 7 | 0.000 | | 0.4927 | 8.323 | 1161.6 | 0.4927 | 13.414 | 1196.8 | 0.4826 |
| 8 | 0.000 | | 0.4453 | 8.318 | 1161.1 | 0.4453 | 13.345 | 1185.4 | 0.4359 |
| 9 | 0.000 | | 0.4056 | 8.509 | 1180.8 | 0.4056 | 13.611 | 1198.8 | 0.3970 |
| 10 | 0.000 | | 0.3717 | 8.412 | 1170.7 | 0.3717 | 13.463 | 1189.6 | 0.3639 |
| 11 | 0.000 | | 0.3435 | 8.221 | 1151.2 | 0.3435 | 13.205 | 1177.8 | 0.3360 |
| 12 | 0.000 | | 0.3197 | 7.973 | 1126.4 | 0.3197 | 12.891 | 1166.2 | 0.3125 |
| 13 | 0.000 | | 0.2996 | 7.686 | 1098.3 | 0.2996 | 12.545 | 1155.9 | 0.2925 |
| 14 | 0.000 | | 0.2824 | 7.365 | 1067.8 | 0.2824 | 12.164 | 1145.6 | 0.2752 |
| 15 | 0.000 | | 0.2677 | 7.002 | 1034.4 | 0.2677 | 11.725 | 1132.6 | 0.2602 |
| 16 | 0.000 | | 0.2550 | 6.581 | 997.0 | 0.2550 | 11.175 | 1111.0 | 0.2472 |
| 17 | 0.000 | | 0.2443 | 6.055 | 952.4 | 0.2443 | 10.421 | 1073.7 | 0.2358 |
| 18 | 0.000 | | 0.2353 | 5.270 | 889.7 | 0.2353 | 9.231 | 1010.9 | 0.2263 |
| 19 | 0.000 | | 0.2280 | 4.772 | 852.2 | 0.2280 | 8.402 | 962.5 | 0.2185 |
| 20 | 0.000 | | 0.2218 | 4.366 | 822.9 | 0.2218 | 7.681 | 918.7 | 0.2119 |
| 21 | 0.000 | | 0.2165 | 4.016 | 798.5 | 0.2165 | 7.016 | 877.0 | 0.2064 |
| 22 | 0.000 | | 0.2119 | 3.390 | 756.7 | 0.2119 | 5.902 | 816.4 | 0.2015 |
| 23 | 0.000 | | 0.2081 | 2.684 | 712.1 | 0.2081 | 4.656 | 754.4 | 0.1978 |
| 24 | 0.000 | | 0.2055 | 1.043 | 617.9 | 0.2055 | 1.848 | 635.7 | 0.1949 |
| 25 | 0.000 | | 0.2045 | 0.671 | 598.1 | 0.2045 | 1.181 | 608.5 | 0.1940 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| No. | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.441 | 644.7 | 0.7396 | 3.467 | 645.8 | 0.7396 | | | |
| 2 | 12.658 | 917.7 | 0.7396 | 12.754 | 931.0 | 0.7396 | | | |
| 3 | 17.237 | 977.9 | 0.7235 | 17.361 | 992.4 | 0.7236 | | | |
| 4 | 19.493 | 1016.2 | 0.6737 | 19.627 | 1039.1 | 0.6737 | | | |
| 5 | 20.161 | 1019.6 | 0.6114 | 20.299 | 1058.4 | 0.6115 | | | |
| 6 | 20.196 | 1019.1 | 0.5500 | 20.335 | 1063.3 | 0.5501 | | | |
| 7 | 20.116 | 1022.5 | 0.4967 | 20.254 | 1058.4 | 0.4968 | | | |
| 8 | 20.125 | 1029.6 | 0.4522 | 20.264 | 1063.3 | 0.4523 | | | |
| 9 | 20.587 | 1047.9 | 0.4142 | 20.727 | 1068.2 | 0.4144 | | | |
| 10 | 20.571 | 1060.4 | 0.3816 | 20.711 | 1068.3 | 0.3817 | | | |
| 11 | 20.457 | 1074.2 | 0.3538 | 20.595 | 1058.4 | 0.3540 | | | |
| 12 | 20.293 | 1088.8 | 0.3300 | 20.429 | 1048.7 | 0.3301 | | | |
| 13 | 20.102 | 1104.1 | 0.3092 | 20.235 | 1034.3 | 0.3093 | | | |
| 14 | 19.874 | 1119.4 | 0.2911 | 20.003 | 1015.4 | 0.2912 | | | |
| 15 | 19.572 | 1133.4 | 0.2751 | 19.697 | 996.9 | 0.2751 | | | |
| 16 | 19.131 | 1144.6 | 0.2609 | 19.251 | 974.3 | 0.2611 | | | |
| 17 | 18.424 | 1149.4 | 0.2486 | 18.539 | 952.3 | 0.2487 | | | |
| 18 | 17.145 | 1140.2 | 0.2380 | 17.253 | 922.3 | 0.2382 | | | |
| 19 | 16.088 | 1117.0 | 0.2285 | 16.190 | 897.4 | 0.2287 | | | |
| 20 | 14.970 | 1077.8 | 0.2200 | 15.064 | 865.3 | 0.2202 | | | |
| 21 | 13.657 | 1016.9 | 0.2125 | 13.741 | 826.9 | 0.2126 | | | |
| 22 | 11.538 | 929.6 | 0.2062 | 11.609 | 779.6 | 0.2063 | | | |
| 23 | 9.050 | 832.8 | 0.2012 | 9.105 | 725.2 | 0.2013 | | | |
| 24 | 3.662 | 663.3 | 0.1979 | 3.684 | 624.2 | 0.1981 | | | |
| 25 | 2.302 | 623.7 | 0.1965 | 2.315 | 598.8 | 0.1966 | | | |

Table 4-89. LS1 Burnup and TH Feedback Parameters Assembly F3

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.264 | 639.0 | 0.7396 | 2.007 | 639.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.716 | 900.9 | 0.7396 | 7.495 | 901.9 | 0.7396 |
| 3 | 0.000 | | 0.7288 | 6.522 | 991.9 | 0.7288 | 10.541 | 1019.6 | 0.7276 |
| 4 | 0.000 | Data | 0.6841 | 7.579 | 1088.0 | 0.6841 | 12.321 | 1135.8 | 0.6809 |
| 5 | 0.000 | Not | 0.6242 | 7.990 | 1128.0 | 0.6242 | 12.944 | 1172.5 | 0.6189 |
| 6 | 0.000 | Required | 0.5613 | 8.069 | 1135.9 | 0.5613 | 12.983 | 1165.5 | 0.5548 |
| 7 | 0.000 | | 0.5044 | 8.043 | 1133.3 | 0.5044 | 12.854 | 1147.6 | 0.4980 |
| 8 | 0.000 | | 0.4566 | 8.039 | 1132.9 | 0.4566 | 12.777 | 1135.2 | 0.4508 |
| 9 | 0.000 | | 0.4165 | 8.236 | 1152.7 | 0.4165 | 13.035 | 1145.6 | 0.4114 |
| 10 | 0.000 | | 0.3824 | 8.166 | 1145.6 | 0.3824 | 12.899 | 1134.3 | 0.3779 |
| 11 | 0.000 | | 0.3535 | 8.009 | 1129.9 | 0.3535 | 12.660 | 1120.5 | 0.3496 |
| 12 | 0.000 | | 0.3292 | 7.800 | 1109.3 | 0.3292 | 12.370 | 1107.0 | 0.3256 |
| 13 | 0.000 | | 0.3085 | 7.554 | 1085.6 | 0.3085 | 12.052 | 1095.1 | 0.3052 |
| 14 | 0.000 | | 0.2908 | 7.273 | 1059.2 | 0.2908 | 11.708 | 1084.9 | 0.2874 |
| 15 | 0.000 | | 0.2755 | 6.953 | 1029.9 | 0.2755 | 11.316 | 1073.3 | 0.2720 |
| 16 | 0.000 | | 0.2623 | 6.577 | 996.7 | 0.2623 | 10.832 | 1056.1 | 0.2586 |
| 17 | 0.000 | | 0.2510 | 6.096 | 955.8 | 0.2510 | 10.163 | 1026.9 | 0.2469 |
| 18 | 0.000 | | 0.2415 | 5.343 | 895.3 | 0.2415 | 9.065 | 975.7 | 0.2370 |
| 19 | 0.000 | | 0.2337 | 4.862 | 858.9 | 0.2337 | 8.312 | 937.2 | 0.2288 |
| 20 | 0.000 | | 0.2271 | 4.456 | 829.3 | 0.2271 | 7.644 | 901.6 | 0.2217 |
| 21 | 0.000 | | 0.2212 | 4.095 | 803.9 | 0.2212 | 7.007 | 865.8 | 0.2156 |
| 22 | 0.000 | | 0.2162 | 3.441 | 760.0 | 0.2162 | 5.895 | 809.5 | 0.2104 |
| 23 | 0.000 | | 0.2124 | 2.706 | 713.5 | 0.2124 | 4.632 | 749.3 | 0.2063 |
| 24 | 0.000 | | 0.2098 | 1.044 | 618.0 | 0.2098 | 1.826 | 633.6 | 0.2035 |
| 25 | 0.000 | | 0.2088 | 0.667 | 596.6 | 0.2088 | 1.158 | 606.8 | 0.2026 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.196 | 636.0 | 0.7396 | 3.219 | 635.5 | 0.7396 | | | |
| 2 | 11.866 | 880.4 | 0.7396 | 11.951 | 879.9 | 0.7396 | | | |
| 3 | 16.311 | 940.8 | 0.7281 | 16.423 | 939.3 | 0.7281 | | | |
| 4 | 18.551 | 980.2 | 0.6834 | 18.678 | 1006.1 | 0.6834 | | | |
| 5 | 19.239 | 985.9 | 0.6256 | 19.377 | 1058.4 | 0.6256 | | | |
| 6 | 19.282 | 986.3 | 0.5665 | 19.430 | 1108.5 | 0.5666 | | | |
| 7 | 19.188 | 989.3 | 0.5138 | 19.346 | 1161.0 | 0.5138 | | | |
| 8 | 19.184 | 995.8 | 0.4691 | 19.348 | 1193.8 | 0.4690 | | | |
| 9 | 19.620 | 1011.8 | 0.4307 | 19.790 | 1227.5 | 0.4306 | | | |
| 10 | 19.595 | 1021.9 | 0.3978 | 19.765 | 1227.5 | 0.3976 | | | |
| 11 | 19.477 | 1033.1 | 0.3695 | 19.645 | 1216.1 | 0.3693 | | | |
| 12 | 19.319 | 1045.4 | 0.3452 | 19.484 | 1199.3 | 0.3450 | | | |
| 13 | 19.139 | 1058.4 | 0.3241 | 19.302 | 1188.3 | 0.3238 | | | |
| 14 | 18.929 | 1071.2 | 0.3055 | 19.091 | 1182.8 | 0.3052 | | | |
| 15 | 18.661 | 1083.2 | 0.2891 | 18.821 | 1171.8 | 0.2889 | | | |
| 16 | 18.277 | 1093.0 | 0.2747 | 18.434 | 1155.7 | 0.2744 | | | |
| 17 | 17.651 | 1097.3 | 0.2619 | 17.804 | 1134.5 | 0.2616 | | | |
| 18 | 16.466 | 1088.7 | 0.2511 | 16.613 | 1103.4 | 0.2508 | | | |
| 19 | 15.512 | 1069.2 | 0.2413 | 15.651 | 1063.3 | 0.2409 | | | |
| 20 | 14.489 | 1035.7 | 0.2323 | 14.620 | 1024.8 | 0.2320 | | | |
| 21 | 13.268 | 982.9 | 0.2243 | 13.386 | 965.4 | 0.2240 | | | |
| 22 | 11.215 | 903.9 | 0.2178 | 11.316 | 893.3 | 0.2174 | | | |
| 23 | 8.773 | 814.4 | 0.2125 | 8.852 | 808.4 | 0.2121 | | | |
| 24 | 3.519 | 656.2 | 0.2093 | 3.553 | 659.3 | 0.2090 | | | |
| 25 | 2.192 | 618.8 | 0.2077 | 2.213 | 621.3 | 0.2074 | | | |

Table 4-90. LS1 Burnup and TH Feedback Parameters Assembly F4

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.297 | 641.1 | 0.7396 | 2.099 | 645.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.819 | 910.0 | 0.7396 | 7.809 | 934.0 | 0.7396 |
| 3 | 0.000 | | 0.7266 | 6.661 | 1004.0 | 0.7266 | 10.964 | 1063.7 | 0.7237 |
| 4 | 0.000 | Data | 0.6789 | 7.775 | 1106.9 | 0.6789 | 12.836 | 1191.4 | 0.6721 |
| 5 | 0.000 | Not | 0.6158 | 8.257 | 1154.9 | 0.6158 | 13.550 | 1233.6 | 0.6054 |
| 6 | 0.000 | Required | 0.5505 | 8.401 | 1169.6 | 0.5505 | 13.676 | 1230.2 | 0.5385 |
| 7 | 0.000 | | 0.4926 | 8.431 | 1172.7 | 0.4926 | 13.626 | 1215.6 | 0.4808 |
| 8 | 0.000 | | 0.4444 | 8.465 | 1176.2 | 0.4444 | 13.601 | 1204.9 | 0.4335 |
| 9 | 0.000 | | 0.4040 | 8.686 | 1199.3 | 0.4040 | 13.899 | 1218.9 | 0.3941 |
| 10 | 0.000 | | 0.3697 | 8.608 | 1191.1 | 0.3697 | 13.774 | 1210.3 | 0.3606 |
| 11 | 0.000 | | 0.3410 | 8.427 | 1172.3 | 0.3410 | 13.532 | 1199.3 | 0.3325 |
| 12 | 0.000 | | 0.3169 | 8.182 | 1147.3 | 0.3169 | 13.227 | 1188.6 | 0.3088 |
| 13 | 0.000 | | 0.2965 | 7.894 | 1118.6 | 0.2965 | 12.887 | 1179.4 | 0.2886 |
| 14 | 0.000 | | 0.2792 | 7.563 | 1086.5 | 0.2792 | 12.509 | 1171.1 | 0.2711 |
| 15 | 0.000 | | 0.2642 | 7.183 | 1050.9 | 0.2642 | 12.065 | 1159.9 | 0.2560 |
| 16 | 0.000 | | 0.2515 | 6.737 | 1010.7 | 0.2515 | 11.500 | 1139.4 | 0.2429 |
| 17 | 0.000 | | 0.2408 | 6.185 | 963.2 | 0.2408 | 10.717 | 1100.7 | 0.2315 |
| 18 | 0.000 | | 0.2318 | 5.371 | 897.5 | 0.2318 | 9.479 | 1033.2 | 0.2219 |
| 19 | 0.000 | | 0.2245 | 4.851 | 858.1 | 0.2245 | 8.603 | 980.0 | 0.2141 |
| 20 | 0.000 | | 0.2183 | 4.428 | 827.3 | 0.2183 | 7.838 | 931.7 | 0.2076 |
| 21 | 0.000 | | 0.2130 | 4.071 | 802.3 | 0.2130 | 7.141 | 886.1 | 0.2021 |
| 22 | 0.000 | | 0.2084 | 3.438 | 759.8 | 0.2084 | 6.002 | 822.7 | 0.1974 |
| 23 | 0.000 | | 0.2048 | 2.728 | 714.8 | 0.2048 | 4.738 | 758.6 | 0.1937 |
| 24 | 0.000 | | 0.2022 | 1.062 | 618.9 | 0.2022 | 1.884 | 637.3 | 0.1909 |
| 25 | 0.000 | | 0.2012 | 0.684 | 598.8 | 0.2012 | 1.206 | 609.6 | 0.1900 |
| | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.534 | 652.6 | 0.7396 | 3.558 | 638.9 | 0.7396 | | | |
| 2 | 12.973 | 952.9 | 0.7396 | 13.060 | 889.0 | 0.7396 | | | |
| 3 | 17.583 | 1014.9 | 0.7215 | 17.697 | 947.9 | 0.7215 | | | |
| 4 | 19.853 | 1051.8 | 0.6697 | 19.983 | 1020.1 | 0.6699 | | | |
| 5 | 20.570 | 1052.1 | 0.6060 | 20.710 | 1068.2 | 0.6062 | | | |
| 6 | 20.668 | 1049.4 | 0.5437 | 20.814 | 1098.3 | 0.5439 | | | |
| 7 | 20.642 | 1051.7 | 0.4897 | 20.793 | 1124.0 | 0.4899 | | | |
| 8 | 20.693 | 1058.9 | 0.4447 | 20.849 | 1150.3 | 0.4449 | | | |
| 9 | 21.190 | 1078.0 | 0.4065 | 21.350 | 1171.8 | 0.4066 | | | |
| 10 | 21.201 | 1091.3 | 0.3738 | 21.362 | 1177.3 | 0.3739 | | | |
| 11 | 21.107 | 1105.9 | 0.3459 | 21.266 | 1166.4 | 0.3459 | | | |
| 12 | 20.956 | 1121.4 | 0.3220 | 21.113 | 1155.7 | 0.3220 | | | |
| 13 | 20.773 | 1137.4 | 0.3013 | 20.928 | 1145.0 | 0.3013 | | | |
| 14 | 20.551 | 1153.5 | 0.2831 | 20.703 | 1129.2 | 0.2831 | | | |
| 15 | 20.253 | 1168.8 | 0.2671 | 20.403 | 1118.8 | 0.2671 | | | |
| 16 | 19.809 | 1181.6 | 0.2530 | 19.956 | 1103.4 | 0.2530 | | | |
| 17 | 19.088 | 1188.2 | 0.2406 | 19.231 | 1083.2 | 0.2406 | | | |
| 18 | 17.783 | 1181.1 | 0.2299 | 17.921 | 1058.4 | 0.2299 | | | |
| 19 | 16.684 | 1157.5 | 0.2204 | 16.818 | 1039.1 | 0.2204 | | | |
| 20 | 15.510 | 1115.6 | 0.2120 | 15.638 | 1010.8 | 0.2119 | | | |
| 21 | 14.134 | 1049.5 | 0.2046 | 14.249 | 952.3 | 0.2046 | | | |
| 22 | 11.953 | 956.1 | 0.1984 | 12.053 | 889.3 | 0.1984 | | | |
| 23 | 9.398 | 852.6 | 0.1936 | 9.477 | 808.4 | 0.1935 | | | |
| 24 | 3.823 | 670.7 | 0.1903 | 3.856 | 656.3 | 0.1903 | | | |
| 25 | 2.411 | 628.4 | 0.1889 | 2.432 | 621.3 | 0.1889 | | | |

Table 4-91. LS1 Burnup and TH Feedback Parameters Assembly F5

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.308 | 641.9 | 0.7396 | 2.120 | 646.7 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.893 | 916.5 | 0.7396 | 7.902 | 937.0 | 0.7396 |
| 3 | 0.000 | | 0.7262 | 6.735 | 1010.5 | 0.7262 | 11.001 | 1057.8 | 0.7239 |
| 4 | 0.000 | Data | 0.6782 | 7.802 | 1109.5 | 0.6782 | 12.759 | 1173.0 | 0.6728 |
| 5 | 0.000 | Not | 0.6148 | 8.237 | 1152.8 | 0.6148 | 13.399 | 1209.6 | 0.6066 |
| 6 | 0.000 | Required | 0.5495 | 8.358 | 1165.2 | 0.5495 | 13.500 | 1206.0 | 0.5401 |
| 7 | 0.000 | | 0.4915 | 8.389 | 1168.4 | 0.4915 | 13.454 | 1192.1 | 0.4824 |
| 8 | 0.000 | | 0.4433 | 8.444 | 1174.0 | 0.4433 | 13.448 | 1181.3 | 0.4352 |
| 9 | 0.000 | | 0.4029 | 8.704 | 1201.2 | 0.4029 | 13.768 | 1192.0 | 0.3958 |
| 10 | 0.000 | | 0.3685 | 8.685 | 1199.2 | 0.3685 | 13.688 | 1181.1 | 0.3623 |
| 11 | 0.000 | | 0.3395 | 8.567 | 1186.8 | 0.3395 | 13.499 | 1168.6 | 0.3342 |
| 12 | 0.000 | | 0.3151 | 8.378 | 1167.2 | 0.3151 | 13.245 | 1157.3 | 0.3104 |
| 13 | 0.000 | | 0.2943 | 8.139 | 1142.9 | 0.2943 | 12.960 | 1149.3 | 0.2899 |
| 14 | 0.000 | | 0.2765 | 7.858 | 1115.0 | 0.2765 | 12.656 | 1145.4 | 0.2723 |
| 15 | 0.000 | | 0.2612 | 7.527 | 1083.1 | 0.2612 | 12.307 | 1142.3 | 0.2569 |
| 16 | 0.000 | | 0.2480 | 7.126 | 1045.6 | 0.2480 | 11.850 | 1132.8 | 0.2434 |
| 17 | 0.000 | | 0.2368 | 6.608 | 999.4 | 0.2368 | 11.175 | 1106.5 | 0.2317 |
| 18 | 0.000 | | 0.2273 | 5.801 | 931.6 | 0.2273 | 10.023 | 1050.9 | 0.2217 |
| 19 | 0.000 | | 0.2197 | 5.274 | 890.0 | 0.2197 | 9.199 | 1005.5 | 0.2134 |
| 20 | 0.000 | | 0.2131 | 4.823 | 856.0 | 0.2131 | 8.448 | 961.7 | 0.2063 |
| 21 | 0.000 | | 0.2074 | 4.422 | 826.9 | 0.2074 | 7.732 | 918.0 | 0.2003 |
| 22 | 0.000 | | 0.2025 | 3.727 | 778.9 | 0.2025 | 6.532 | 852.3 | 0.1951 |
| 23 | 0.000 | | 0.1987 | 2.949 | 728.5 | 0.1987 | 5.171 | 782.5 | 0.1911 |
| 24 | 0.000 | | 0.1962 | 1.142 | 623.3 | 0.1962 | 2.057 | 646.2 | 0.1882 |
| 25 | 0.000 | | 0.1953 | 0.733 | 601.3 | 0.1953 | 1.312 | 614.8 | 0.1873 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.618 | 656.9 | 0.7396 | 3.632 | 605.2 | 0.7396 | | | |
| 2 | 13.225 | 968.1 | 0.7396 | 13.276 | 737.5 | 0.7396 | | | |
| 3 | 17.729 | 1024.9 | 0.7210 | 17.795 | 762.2 | 0.7211 | | | |
| 4 | 19.845 | 1058.3 | 0.6692 | 19.920 | 793.9 | 0.6695 | | | |
| 5 | 20.474 | 1057.3 | 0.6058 | 20.555 | 815.7 | 0.6062 | | | |
| 6 | 20.543 | 1054.2 | 0.5436 | 20.628 | 830.7 | 0.5443 | | | |
| 7 | 20.521 | 1056.5 | 0.4897 | 20.610 | 845.9 | 0.4905 | | | |
| 8 | 20.585 | 1063.2 | 0.4448 | 20.678 | 861.4 | 0.4456 | | | |
| 9 | 21.098 | 1081.8 | 0.4066 | 21.194 | 873.2 | 0.4075 | | | |
| 10 | 21.145 | 1094.2 | 0.3739 | 21.241 | 873.2 | 0.3748 | | | |
| 11 | 21.095 | 1108.0 | 0.3460 | 21.191 | 873.2 | 0.3469 | | | |
| 12 | 20.989 | 1122.9 | 0.3220 | 21.083 | 865.3 | 0.3228 | | | |
| 13 | 20.856 | 1138.4 | 0.3012 | 20.948 | 857.5 | 0.3019 | | | |
| 14 | 20.698 | 1153.5 | 0.2829 | 20.787 | 845.9 | 0.2836 | | | |
| 15 | 20.484 | 1167.6 | 0.2667 | 20.571 | 838.2 | 0.2673 | | | |
| 16 | 20.144 | 1180.0 | 0.2524 | 20.227 | 823.2 | 0.2530 | | | |
| 17 | 19.547 | 1188.3 | 0.2397 | 19.626 | 808.4 | 0.2403 | | | |
| 18 | 18.378 | 1186.5 | 0.2287 | 18.452 | 790.3 | 0.2293 | | | |
| 19 | 17.390 | 1169.1 | 0.2189 | 17.460 | 776.1 | 0.2195 | | | |
| 20 | 16.288 | 1132.6 | 0.2102 | 16.353 | 758.7 | 0.2107 | | | |
| 21 | 14.928 | 1068.8 | 0.2025 | 14.986 | 735.1 | 0.2030 | | | |
| 22 | 12.729 | 977.3 | 0.1961 | 12.778 | 705.7 | 0.1966 | | | |
| 23 | 10.073 | 871.0 | 0.1910 | 10.111 | 671.4 | 0.1915 | | | |
| 24 | 4.113 | 677.6 | 0.1877 | 4.128 | 604.4 | 0.1882 | | | |
| 25 | 2.591 | 632.5 | 0.1863 | 2.599 | 584.9 | 0.1868 | | | |

Table 4-92. LS1 Burnup and TH Feedback Parameters Assembly F6

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.271 | 639.4 | 0.7396 | 2.014 | 639.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.783 | 906.8 | 0.7396 | 7.542 | 899.0 | 0.7396 |
| 3 | 0.000 | | 0.7265 | 6.589 | 997.7 | 0.7265 | 10.522 | 1006.7 | 0.7265 |
| 4 | 0.000 | Data | 0.6791 | 7.613 | 1091.3 | 0.6791 | 12.217 | 1112.6 | 0.6789 |
| 5 | 0.000 | Not | 0.6181 | 8.013 | 1130.3 | 0.6181 | 12.837 | 1149.9 | 0.6169 |
| 6 | 0.000 | Required | 0.5551 | 8.111 | 1140.1 | 0.5551 | 12.929 | 1148.8 | 0.5532 |
| 7 | 0.000 | | 0.4984 | 8.127 | 1141.7 | 0.4984 | 12.870 | 1136.0 | 0.4964 |
| 8 | 0.000 | | 0.4507 | 8.197 | 1148.8 | 0.4507 | 12.875 | 1125.0 | 0.4490 |
| 9 | 0.000 | | 0.4103 | 8.528 | 1182.7 | 0.4103 | 13.255 | 1133.3 | 0.4093 |
| 10 | 0.000 | | 0.3755 | 8.625 | 1192.9 | 0.3755 | 13.279 | 1121.0 | 0.3753 |
| 11 | 0.000 | | 0.3457 | 8.612 | 1191.5 | 0.3457 | 13.187 | 1107.8 | 0.3462 |
| 12 | 0.000 | | 0.3202 | 8.489 | 1178.7 | 0.3202 | 12.997 | 1096.8 | 0.3215 |
| 13 | 0.000 | | 0.2985 | 8.292 | 1158.4 | 0.2985 | 12.752 | 1088.9 | 0.3003 |
| 14 | 0.000 | | 0.2799 | 8.034 | 1132.4 | 0.2799 | 12.468 | 1084.7 | 0.2820 |
| 15 | 0.000 | | 0.2640 | 7.711 | 1100.7 | 0.2640 | 12.122 | 1081.0 | 0.2662 |
| 16 | 0.000 | | 0.2504 | 7.317 | 1063.3 | 0.2504 | 11.672 | 1072.0 | 0.2524 |
| 17 | 0.000 | | 0.2387 | 6.808 | 1017.0 | 0.2387 | 11.025 | 1050.1 | 0.2404 |
| 18 | 0.000 | | 0.2290 | 6.004 | 948.1 | 0.2290 | 9.919 | 1004.0 | 0.2303 |
| 19 | 0.000 | | 0.2209 | 5.478 | 905.9 | 0.2209 | 9.149 | 968.3 | 0.2217 |
| 20 | 0.000 | | 0.2140 | 5.020 | 870.7 | 0.2140 | 8.461 | 935.9 | 0.2143 |
| 21 | 0.000 | | 0.2080 | 4.602 | 839.8 | 0.2080 | 7.798 | 902.7 | 0.2078 |
| 22 | 0.000 | | 0.2029 | 3.870 | 788.5 | 0.2029 | 6.613 | 844.5 | 0.2022 |
| 23 | 0.000 | | 0.1989 | 3.046 | 734.6 | 0.1989 | 5.222 | 777.2 | 0.1979 |
| 24 | 0.000 | | 0.1963 | 1.173 | 625.0 | 0.1963 | 2.063 | 643.8 | 0.1951 |
| 25 | 0.000 | | 0.1953 | 0.747 | 602.1 | 0.1953 | 1.301 | 612.5 | 0.1941 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.405 | 649.6 | 0.7396 | 3.432 | 649.3 | 0.7396 | | | |
| 2 | 12.533 | 936.6 | 0.7396 | 12.631 | 940.5 | 0.7396 | | | |
| 3 | 16.924 | 995.4 | 0.7247 | 17.049 | 996.9 | 0.7247 | | | |
| 4 | 19.025 | 1032.2 | 0.6770 | 19.163 | 1058.4 | 0.677 | | | |
| 5 | 19.672 | 1034.7 | 0.6173 | 19.814 | 1078.2 | 0.6174 | | | |
| 6 | 19.752 | 1033.6 | 0.5574 | 19.894 | 1078.2 | 0.5574 | | | |
| 7 | 19.720 | 1036.1 | 0.5040 | 19.861 | 1073.2 | 0.5041 | | | |
| 8 | 19.784 | 1041.6 | 0.4589 | 19.926 | 1078.2 | 0.4589 | | | |
| 9 | 20.324 | 1056.7 | 0.4203 | 20.467 | 1083.2 | 0.4203 | | | |
| 10 | 20.435 | 1065.0 | 0.3869 | 20.577 | 1078.2 | 0.3870 | | | |
| 11 | 20.451 | 1075.4 | 0.3582 | 20.592 | 1073.2 | 0.3583 | | | |
| 12 | 20.386 | 1087.5 | 0.3336 | 20.525 | 1063.3 | 0.3336 | | | |
| 13 | 20.277 | 1100.9 | 0.3121 | 20.413 | 1048.7 | 0.3121 | | | |
| 14 | 20.132 | 1114.8 | 0.2934 | 20.264 | 1029.6 | 0.2934 | | | |
| 15 | 19.920 | 1128.4 | 0.2768 | 20.048 | 1010.8 | 0.2768 | | | |
| 16 | 19.588 | 1140.4 | 0.2621 | 19.712 | 992.4 | 0.2622 | | | |
| 17 | 19.019 | 1148.5 | 0.2493 | 19.136 | 961.0 | 0.2493 | | | |
| 18 | 17.895 | 1146.6 | 0.2381 | 18.005 | 930.7 | 0.2382 | | | |
| 19 | 16.973 | 1131.0 | 0.2280 | 17.076 | 901.5 | 0.2281 | | | |
| 20 | 15.952 | 1097.6 | 0.2190 | 16.047 | 869.3 | 0.2191 | | | |
| 21 | 14.674 | 1038.5 | 0.2110 | 14.758 | 826.9 | 0.2111 | | | |
| 22 | 12.529 | 953.1 | 0.2044 | 12.600 | 779.6 | 0.2045 | | | |
| 23 | 9.869 | 853.1 | 0.1991 | 9.944 | 725.2 | 0.1992 | | | |
| 24 | 4.004 | 670.8 | 0.1959 | 4.027 | 627.0 | 0.1960 | | | |
| 25 | 2.497 | 627.9 | 0.1944 | 2.511 | 601.6 | 0.1945 | | | |

Table 4-93. LS1 Burnup and TH Feedback Parameters Assembly F7

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|-------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.244 | 637.7 | 0.7396 | 1.953 | 635.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.669 | 896.7 | 0.7396 | 7.321 | 883.1 | 0.7396 |
| 3 | 0.000 | | 0.7288 | 6.449 | 985.6 | 0.7288 | 10.268 | 989.8 | 0.7288 |
| 4 | 0.000 | Data | 0.6842 | 7.476 | 1078.2 | 0.6842 | 11.987 | 1097.3 | 0.6839 |
| 5 | 0.000 | Not | 0.6252 | 7.879 | 1117.1 | 0.6252 | 12.620 | 1135.7 | 0.6242 |
| 6 | 0.000 | Required | 0.5633 | 7.971 | 1126.2 | 0.5633 | 12.698 | 1133.3 | 0.5616 |
| 7 | 0.000 | | 0.5068 | 7.971 | 1126.2 | 0.5068 | 12.610 | 1118.5 | 0.5050 |
| 8 | 0.000 | | 0.4589 | 8.008 | 1129.8 | 0.4589 | 12.576 | 1106.6 | 0.4575 |
| 9 | 0.000 | | 0.4184 | 8.268 | 1156.0 | 0.4184 | 12.889 | 1115.5 | 0.4177 |
| 10 | 0.000 | | 0.3838 | 8.280 | 1157.2 | 0.3838 | 12.831 | 1103.8 | 0.3836 |
| 11 | 0.000 | | 0.3542 | 8.203 | 1149.4 | 0.3542 | 12.668 | 1089.7 | 0.3547 |
| 12 | 0.000 | | 0.3291 | 8.052 | 1134.2 | 0.3291 | 12.439 | 1077.1 | 0.3301 |
| 13 | 0.000 | | 0.3076 | 7.846 | 1113.8 | 0.3076 | 12.170 | 1067.0 | 0.3090 |
| 14 | 0.000 | | 0.2892 | 7.594 | 1089.5 | 0.2892 | 11.866 | 1058.8 | 0.2908 |
| 15 | 0.000 | | 0.2734 | 7.291 | 1060.9 | 0.2734 | 11.510 | 1050.5 | 0.2749 |
| 16 | 0.000 | | 0.2597 | 6.926 | 1027.5 | 0.2597 | 11.062 | 1037.6 | 0.2612 |
| 17 | 0.000 | | 0.2480 | 6.453 | 985.9 | 0.2480 | 10.434 | 1013.9 | 0.2492 |
| 18 | 0.000 | | 0.2382 | 5.689 | 922.6 | 0.2382 | 9.365 | 969.0 | 0.2390 |
| 19 | 0.000 | | 0.2300 | 5.196 | 884.0 | 0.2300 | 8.637 | 935.9 | 0.2304 |
| 20 | 0.000 | | 0.2230 | 4.763 | 851.6 | 0.2230 | 7.977 | 905.1 | 0.2230 |
| 21 | 0.000 | | 0.2169 | 4.367 | 823.0 | 0.2169 | 7.338 | 873.3 | 0.2164 |
| 22 | 0.000 | | 0.2118 | 3.661 | 774.5 | 0.2118 | 6.191 | 818.6 | 0.2110 |
| 23 | 0.000 | | 0.2077 | 2.871 | 723.7 | 0.2077 | 4.865 | 756.8 | 0.2067 |
| 24 | 0.000 | | 0.2052 | 1.103 | 621.2 | 0.2052 | 1.913 | 636.2 | 0.2039 |
| 25 | 0.000 | | 0.2042 | 0.702 | 599.7 | 0.2042 | 1.205 | 607.9 | 0.2029 |

| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 3.162 | 637.4 | 0.7396 | 3.184 | 632.1 | 0.7396 |
| 2 | 11.736 | 884.3 | 0.7396 | 11.818 | 866.4 | 0.7396 |
| 3 | 16.075 | 943.9 | 0.7289 | 16.185 | 930.7 | 0.729 |
| 4 | 18.252 | 983.3 | 0.6855 | 18.376 | 992.4 | 0.6856 |
| 5 | 18.950 | 989.0 | 0.6292 | 19.083 | 1034.3 | 0.6294 |
| 6 | 19.034 | 989.5 | 0.5711 | 19.175 | 1073.2 | 0.5713 |
| 7 | 18.980 | 992.5 | 0.5185 | 19.126 | 1098.3 | 0.5186 |
| 8 | 19.012 | 998.4 | 0.4734 | 19.162 | 1118.8 | 0.4735 |
| 9 | 19.490 | 1013.3 | 0.4347 | 19.645 | 1145.0 | 0.4347 |
| 10 | 19.523 | 1021.6 | 0.4012 | 19.679 | 1150.3 | 0.4011 |
| 11 | 19.466 | 1031.3 | 0.3725 | 19.620 | 1139.7 | 0.3724 |
| 12 | 19.356 | 1042.4 | 0.3476 | 19.510 | 1139.7 | 0.3476 |
| 13 | 19.217 | 1054.6 | 0.3260 | 19.367 | 1118.8 | 0.3260 |
| 14 | 19.044 | 1067.1 | 0.3072 | 19.192 | 1108.5 | 0.3071 |
| 15 | 18.814 | 1079.3 | 0.2905 | 18.959 | 1093.2 | 0.2904 |
| 16 | 18.474 | 1089.8 | 0.2758 | 18.615 | 1073.2 | 0.2757 |
| 17 | 17.905 | 1095.6 | 0.2628 | 18.041 | 1048.7 | 0.2627 |
| 18 | 16.781 | 1090.2 | 0.2517 | 16.911 | 1020.1 | 0.2516 |
| 19 | 15.882 | 1073.5 | 0.2416 | 16.006 | 992.4 | 0.2415 |
| 20 | 14.893 | 1042.3 | 0.2325 | 15.009 | 956.6 | 0.2323 |
| 21 | 13.682 | 990.2 | 0.2242 | 13.786 | 905.6 | 0.2242 |
| 22 | 11.611 | 912.0 | 0.2175 | 11.700 | 845.9 | 0.2174 |
| 23 | 9.103 | 821.4 | 0.2121 | 9.174 | 779.6 | 0.2120 |
| 24 | 3.649 | 658.7 | 0.2089 | 3.680 | 650.4 | 0.2088 |
| 25 | 2.263 | 620.2 | 0.2074 | 2.282 | 615.6 | 0.2072 |

Table 4-94. LS1 Burnup and TH Feedback Parameters Assembly F8

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.302 | 641.5 | 0.7396 | 2.112 | 646.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.874 | 914.8 | 0.7396 | 7.873 | 935.4 | 0.7396 |
| 3 | 0.000 | | 0.7265 | 6.711 | 1008.4 | 0.7265 | 10.964 | 1055.8 | 0.7241 |
| 4 | 0.000 | Data | 0.6786 | 7.778 | 1107.2 | 0.6786 | 12.722 | 1170.7 | 0.6732 |
| 5 | 0.000 | Not | 0.6155 | 8.214 | 1150.5 | 0.6155 | 13.365 | 1207.6 | 0.6073 |
| 6 | 0.000 | Required | 0.5503 | 8.337 | 1163.0 | 0.5503 | 13.468 | 1204.0 | 0.5408 |
| 7 | 0.000 | | 0.4923 | 8.369 | 1166.3 | 0.4923 | 13.425 | 1190.5 | 0.4831 |
| 8 | 0.000 | | 0.4440 | 8.425 | 1172.1 | 0.4440 | 13.419 | 1179.5 | 0.4359 |
| 9 | 0.000 | | 0.4037 | 8.685 | 1199.2 | 0.4037 | 13.740 | 1190.4 | 0.3965 |
| 10 | 0.000 | | 0.3692 | 8.666 | 1197.2 | 0.3692 | 13.661 | 1179.7 | 0.3630 |
| 11 | 0.000 | | 0.3402 | 8.549 | 1184.9 | 0.3402 | 13.472 | 1167.0 | 0.3348 |
| 12 | 0.000 | | 0.3157 | 8.360 | 1165.4 | 0.3157 | 13.219 | 1155.9 | 0.3109 |
| 13 | 0.000 | | 0.2949 | 8.122 | 1141.2 | 0.2949 | 12.935 | 1148.0 | 0.2905 |
| 14 | 0.000 | | 0.2770 | 7.841 | 1113.4 | 0.2770 | 12.631 | 1144.0 | 0.2728 |
| 15 | 0.000 | | 0.2617 | 7.511 | 1081.5 | 0.2617 | 12.283 | 1140.9 | 0.2574 |
| 16 | 0.000 | | 0.2486 | 7.111 | 1044.3 | 0.2486 | 11.826 | 1131.3 | 0.2439 |
| 17 | 0.000 | | 0.2372 | 6.593 | 998.0 | 0.2372 | 11.152 | 1105.2 | 0.2321 |
| 18 | 0.000 | | 0.2278 | 5.787 | 930.4 | 0.2278 | 10.002 | 1049.8 | 0.2221 |
| 19 | 0.000 | | 0.2201 | 5.261 | 889.0 | 0.2201 | 9.179 | 1004.4 | 0.2138 |
| 20 | 0.000 | | 0.2136 | 4.811 | 855.1 | 0.2136 | 8.429 | 960.7 | 0.2067 |
| 21 | 0.000 | | 0.2079 | 4.412 | 826.2 | 0.2079 | 7.715 | 917.1 | 0.2007 |
| 22 | 0.000 | | 0.2030 | 3.718 | 778.3 | 0.2030 | 6.518 | 851.6 | 0.1955 |
| 23 | 0.000 | | 0.1991 | 2.941 | 728.0 | 0.1991 | 5.158 | 781.9 | 0.1914 |
| 24 | 0.000 | | 0.1967 | 1.139 | 623.1 | 0.1967 | 2.053 | 646.1 | 0.1886 |
| 25 | 0.000 | | 0.1957 | 0.731 | 601.2 | 0.1957 | 1.308 | 614.6 | 0.1876 |
| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.606 | 656.7 | 0.7396 | 3.620 | 605.2 | 0.7396 | | | |
| 2 | 13.179 | 966.4 | 0.7396 | 13.230 | 737.5 | 0.7396 | | | |
| 3 | 17.673 | 1023.1 | 0.7212 | 17.738 | 758.7 | 0.7213 | | | |
| 4 | 19.790 | 1056.6 | 0.6696 | 19.864 | 790.3 | 0.6699 | | | |
| 5 | 20.423 | 1055.7 | 0.6064 | 20.504 | 815.7 | 0.6069 | | | |
| 6 | 20.495 | 1052.7 | 0.5444 | 20.581 | 834.4 | 0.545 | | | |
| 7 | 20.476 | 1055.0 | 0.4904 | 20.565 | 845.9 | 0.4912 | | | |
| 8 | 20.543 | 1061.9 | 0.4454 | 20.635 | 857.5 | 0.4463 | | | |
| 9 | 21.056 | 1080.4 | 0.4073 | 21.151 | 869.2 | 0.4082 | | | |
| 10 | 21.104 | 1092.8 | 0.3746 | 21.199 | 869.2 | 0.3754 | | | |
| 11 | 21.055 | 1106.7 | 0.3466 | 21.150 | 869.2 | 0.3474 | | | |
| 12 | 20.949 | 1121.5 | 0.3226 | 21.043 | 865.3 | 0.3234 | | | |
| 13 | 20.816 | 1136.8 | 0.3017 | 20.908 | 857.5 | 0.3024 | | | |
| 14 | 20.659 | 1152.0 | 0.2834 | 20.748 | 845.9 | 0.2841 | | | |
| 15 | 20.445 | 1166.0 | 0.2672 | 20.532 | 838.2 | 0.2678 | | | |
| 16 | 20.106 | 1178.5 | 0.2528 | 20.189 | 823.1 | 0.2535 | | | |
| 17 | 19.510 | 1186.8 | 0.2401 | 19.589 | 808.4 | 0.2408 | | | |
| 18 | 18.343 | 1185.0 | 0.2292 | 18.417 | 790.3 | 0.2297 | | | |
| 19 | 17.357 | 1167.7 | 0.2193 | 17.426 | 772.6 | 0.2200 | | | |
| 20 | 16.256 | 1131.3 | 0.2106 | 16.320 | 755.3 | 0.2112 | | | |
| 21 | 14.899 | 1067.7 | 0.2029 | 14.956 | 731.8 | 0.2034 | | | |
| 22 | 12.703 | 976.3 | 0.1965 | 12.752 | 705.7 | 0.1970 | | | |
| 23 | 10.052 | 870.4 | 0.1914 | 10.090 | 671.4 | 0.1919 | | | |
| 24 | 4.106 | 677.5 | 0.1881 | 4.121 | 604.4 | 0.1886 | | | |
| 25 | 2.585 | 632.4 | 0.1867 | 2.593 | 584.9 | 0.1871 | | | |

Table 4-95. LS1 Burnup and TH Feedback Parameters Assembly F9

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.210 | 635.4 | 0.7396 | 1.963 | 640.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.565 | 887.7 | 0.7396 | 7.392 | 909.2 | 0.7396 |
| 3 | 0.000 | | 0.7300 | 6.364 | 978.3 | 0.7300 | 10.450 | 1029.9 | 0.7277 |
| 4 | 0.000 | Data | 0.6862 | 7.454 | 1076.1 | 0.6862 | 12.276 | 1149.5 | 0.6808 |
| 5 | 0.000 | Not | 0.6272 | 7.918 | 1120.9 | 0.6272 | 12.962 | 1188.4 | 0.6185 |
| 6 | 0.000 | Required | 0.5647 | 8.048 | 1133.8 | 0.5647 | 13.056 | 1182.0 | 0.5542 |
| 7 | 0.000 | | 0.5074 | 8.067 | 1135.7 | 0.5074 | 12.971 | 1163.7 | 0.4970 |
| 8 | 0.000 | | 0.4589 | 8.111 | 1140.1 | 0.4589 | 12.931 | 1149.2 | 0.4495 |
| 9 | 0.000 | | 0.4179 | 8.366 | 1166.0 | 0.4179 | 13.232 | 1157.1 | 0.4098 |
| 10 | 0.000 | | 0.3831 | 8.355 | 1164.9 | 0.3831 | 13.144 | 1143.9 | 0.3760 |
| 11 | 0.000 | | 0.3535 | 8.246 | 1153.7 | 0.3535 | 12.948 | 1129.1 | 0.3473 |
| 12 | 0.000 | | 0.3284 | 8.064 | 1135.4 | 0.3284 | 12.689 | 1116.1 | 0.3230 |
| 13 | 0.000 | | 0.3070 | 7.828 | 1112.1 | 0.3070 | 12.404 | 1108.0 | 0.3021 |
| 14 | 0.000 | | 0.2887 | 7.546 | 1084.9 | 0.2887 | 12.121 | 1107.8 | 0.2841 |
| 15 | 0.000 | | 0.2730 | 7.216 | 1053.9 | 0.2730 | 11.829 | 1114.1 | 0.2683 |
| 16 | 0.000 | | 0.2595 | 6.821 | 1018.1 | 0.2595 | 11.442 | 1115.5 | 0.2543 |
| 17 | 0.000 | | 0.2480 | 6.316 | 974.2 | 0.2480 | 10.821 | 1096.3 | 0.2422 |
| 18 | 0.000 | | 0.2384 | 5.533 | 910.2 | 0.2384 | 9.698 | 1042.0 | 0.2318 |
| 19 | 0.000 | | 0.2305 | 5.039 | 872.1 | 0.2305 | 8.909 | 997.3 | 0.2232 |
| 20 | 0.000 | | 0.2237 | 4.632 | 842.0 | 0.2237 | 8.205 | 954.4 | 0.2159 |
| 21 | 0.000 | | 0.2179 | 4.275 | 816.5 | 0.2179 | 7.536 | 911.4 | 0.2095 |
| 22 | 0.000 | | 0.2129 | 3.610 | 771.1 | 0.2129 | 6.362 | 845.7 | 0.2043 |
| 23 | 0.000 | | 0.2089 | 2.853 | 722.5 | 0.2089 | 5.016 | 775.8 | 0.2001 |
| 24 | 0.000 | | 0.2062 | 1.107 | 621.4 | 0.2062 | 1.989 | 643.0 | 0.1972 |
| 25 | 0.000 | | 0.2053 | 0.708 | 600.0 | 0.2053 | 1.261 | 612.4 | 0.1962 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.436 | 655.2 | 0.7396 | 3.453 | 615.2 | 0.7396 | | | |
| 2 | 12.710 | 967.6 | 0.7396 | 12.772 | 781.2 | 0.7396 | | | |
| 3 | 17.284 | 1034.6 | 0.7229 | 17.364 | 812.0 | 0.7231 | | | |
| 4 | 19.502 | 1071.7 | 0.6735 | 19.593 | 853.6 | 0.6738 | | | |
| 5 | 20.160 | 1069.0 | 0.6125 | 20.257 | 877.2 | 0.6129 | | | |
| 6 | 20.197 | 1063.6 | 0.5519 | 20.299 | 897.4 | 0.5524 | | | |
| 7 | 20.109 | 1063.3 | 0.4984 | 20.215 | 913.9 | 0.4991 | | | |
| 8 | 20.113 | 1067.5 | 0.4534 | 20.223 | 930.7 | 0.4541 | | | |
| 9 | 20.578 | 1083.3 | 0.4151 | 20.692 | 947.9 | 0.4158 | | | |
| 10 | 20.586 | 1092.7 | 0.3823 | 20.700 | 947.9 | 0.3829 | | | |
| 11 | 20.501 | 1103.7 | 0.3541 | 20.615 | 947.9 | 0.3547 | | | |
| 12 | 20.366 | 1116.1 | 0.3298 | 20.478 | 939.3 | 0.3304 | | | |
| 13 | 20.210 | 1129.2 | 0.3087 | 20.320 | 930.7 | 0.3092 | | | |
| 14 | 20.048 | 1141.6 | 0.2901 | 20.155 | 918.1 | 0.2907 | | | |
| 15 | 19.860 | 1152.3 | 0.2737 | 19.964 | 905.6 | 0.2742 | | | |
| 16 | 19.558 | 1161.2 | 0.2590 | 19.658 | 889.3 | 0.2595 | | | |
| 17 | 18.982 | 1165.9 | 0.2461 | 19.077 | 869.2 | 0.2465 | | | |
| 18 | 17.802 | 1159.9 | 0.2349 | 17.893 | 853.6 | 0.2353 | | | |
| 19 | 16.819 | 1139.8 | 0.2249 | 16.904 | 830.7 | 0.2254 | | | |
| 20 | 15.743 | 1102.2 | 0.2161 | 15.822 | 808.4 | 0.2166 | | | |
| 21 | 14.427 | 1039.9 | 0.2084 | 14.498 | 779.6 | 0.2088 | | | |
| 22 | 12.254 | 951.1 | 0.2020 | 12.315 | 745.1 | 0.2024 | | | |
| 23 | 9.642 | 850.0 | 0.1970 | 9.689 | 699.4 | 0.1975 | | | |
| 24 | 3.911 | 669.7 | 0.1937 | 3.930 | 615.6 | 0.1941 | | | |
| 25 | 2.450 | 627.5 | 0.1923 | 2.461 | 593.2 | 0.1927 | | | |

Table 4-96. LS1 Burnup and TH Feedback Parameters Assembly F10

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.264 | 639.0 | 0.7396 | 2.007 | 639.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.716 | 900.9 | 0.7396 | 7.497 | 902.2 | 0.7396 |
| 3 | 0.000 | | 0.7289 | 6.522 | 991.9 | 0.7289 | 10.545 | 1020.2 | 0.7276 |
| 4 | 0.000 | Data | 0.6841 | 7.579 | 1088.0 | 0.6841 | 12.324 | 1136.3 | 0.6810 |
| 5 | 0.000 | Not | 0.6243 | 7.990 | 1128.0 | 0.6243 | 12.946 | 1172.8 | 0.6190 |
| 6 | 0.000 | Required | 0.5615 | 8.069 | 1135.9 | 0.5615 | 12.983 | 1165.5 | 0.5550 |
| 7 | 0.000 | | 0.5046 | 8.042 | 1133.2 | 0.5046 | 12.853 | 1147.6 | 0.4981 |
| 8 | 0.000 | | 0.4568 | 8.039 | 1132.9 | 0.4568 | 12.775 | 1134.8 | 0.4509 |
| 9 | 0.000 | | 0.4167 | 8.235 | 1152.6 | 0.4167 | 13.033 | 1145.4 | 0.4115 |
| 10 | 0.000 | | 0.3826 | 8.164 | 1145.4 | 0.3826 | 12.897 | 1134.3 | 0.3781 |
| 11 | 0.000 | | 0.3537 | 8.007 | 1129.7 | 0.3537 | 12.657 | 1120.3 | 0.3497 |
| 12 | 0.000 | | 0.3294 | 7.798 | 1109.2 | 0.3294 | 12.367 | 1106.8 | 0.3258 |
| 13 | 0.000 | | 0.3087 | 7.552 | 1085.4 | 0.3087 | 12.049 | 1095.0 | 0.3053 |
| 14 | 0.000 | | 0.2910 | 7.271 | 1059.0 | 0.2910 | 11.705 | 1084.7 | 0.2876 |
| 15 | 0.000 | | 0.2756 | 6.951 | 1029.8 | 0.2756 | 11.313 | 1073.1 | 0.2722 |
| 16 | 0.000 | | 0.2625 | 6.575 | 996.5 | 0.2625 | 10.829 | 1056.0 | 0.2588 |
| 17 | 0.000 | | 0.2512 | 6.094 | 955.6 | 0.2512 | 10.161 | 1026.9 | 0.2472 |
| 18 | 0.000 | | 0.2417 | 5.341 | 895.2 | 0.2417 | 9.062 | 975.5 | 0.2372 |
| 19 | 0.000 | | 0.2339 | 4.860 | 858.7 | 0.2339 | 8.310 | 937.2 | 0.2290 |
| 20 | 0.000 | | 0.2272 | 4.454 | 829.2 | 0.2272 | 7.641 | 901.5 | 0.2218 |
| 21 | 0.000 | | 0.2214 | 4.093 | 803.8 | 0.2214 | 7.004 | 865.6 | 0.2157 |
| 22 | 0.000 | | 0.2164 | 3.439 | 759.9 | 0.2164 | 5.892 | 809.4 | 0.2105 |
| 23 | 0.000 | | 0.2125 | 2.705 | 713.4 | 0.2125 | 4.630 | 749.2 | 0.2065 |
| 24 | 0.000 | | 0.2100 | 1.043 | 617.9 | 0.2100 | 1.825 | 633.6 | 0.2037 |
| 25 | 0.000 | | 0.2090 | 0.666 | 597.8 | 0.2090 | 1.157 | 606.8 | 0.2027 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| No. | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.196 | 636.0 | 0.7396 | 3.218 | 632.1 | 0.7396 | | | |
| 2 | 11.863 | 880.0 | 0.7396 | 11.947 | 875.4 | 0.7396 | | | |
| 3 | 16.306 | 940.0 | 0.7282 | 16.417 | 935.0 | 0.7282 | | | |
| 4 | 18.544 | 979.3 | 0.6835 | 18.671 | 1006.1 | 0.6836 | | | |
| 5 | 19.232 | 985.1 | 0.6257 | 19.370 | 1058.4 | 0.6258 | | | |
| 6 | 19.276 | 985.7 | 0.5667 | 19.425 | 1113.6 | 0.5668 | | | |
| 7 | 19.184 | 989.1 | 0.5141 | 19.341 | 1155.7 | 0.5141 | | | |
| 8 | 19.180 | 995.6 | 0.4693 | 19.344 | 1193.8 | 0.4693 | | | |
| 9 | 19.617 | 1011.7 | 0.4310 | 19.786 | 1221.8 | 0.4309 | | | |
| 10 | 19.591 | 1021.7 | 0.3980 | 19.761 | 1227.5 | 0.3978 | | | |
| 11 | 19.473 | 1033.0 | 0.3698 | 19.641 | 1216.1 | 0.3696 | | | |
| 12 | 19.316 | 1045.4 | 0.3455 | 19.481 | 1199.3 | 0.3452 | | | |
| 13 | 19.135 | 1058.3 | 0.3243 | 19.298 | 1188.3 | 0.3241 | | | |
| 14 | 18.926 | 1071.2 | 0.3057 | 19.087 | 1177.3 | 0.3055 | | | |
| 15 | 18.658 | 1083.2 | 0.2893 | 18.818 | 1171.8 | 0.2891 | | | |
| 16 | 18.274 | 1093.0 | 0.2749 | 18.431 | 1155.7 | 0.2747 | | | |
| 17 | 17.649 | 1097.3 | 0.2622 | 17.801 | 1129.2 | 0.2619 | | | |
| 18 | 16.463 | 1088.7 | 0.2513 | 16.610 | 1103.4 | 0.2510 | | | |
| 19 | 15.510 | 1069.2 | 0.2415 | 15.649 | 1063.3 | 0.2411 | | | |
| 20 | 14.487 | 1035.8 | 0.2325 | 14.618 | 1024.8 | 0.2323 | | | |
| 21 | 13.266 | 983.0 | 0.2245 | 13.384 | 965.4 | 0.2242 | | | |
| 22 | 11.213 | 904.0 | 0.2179 | 11.314 | 893.3 | 0.2176 | | | |
| 23 | 8.770 | 814.3 | 0.2126 | 8.850 | 812.0 | 0.2124 | | | |
| 24 | 3.519 | 656.3 | 0.2095 | 3.552 | 656.3 | 0.2091 | | | |
| 25 | 2.191 | 618.8 | 0.2079 | 2.212 | 621.3 | 0.2076 | | | |

Table 4-97. LS1 Burnup and TH Feedback Parameters Assembly F11

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.304 | 641.6 | 0.7396 | 2.089 | 643.7 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.848 | 912.5 | 0.7396 | 7.781 | 925.3 | 0.7396 |
| 3 | 0.000 | | 0.7270 | 6.691 | 1006.6 | 0.7270 | 10.912 | 1050.8 | 0.7250 |
| 4 | 0.000 | Data | 0.6800 | 7.762 | 1105.6 | 0.6800 | 12.705 | 1170.5 | 0.6751 |
| 5 | 0.000 | Not | 0.6179 | 8.171 | 1146.1 | 0.6179 | 13.310 | 1205.4 | 0.6102 |
| 6 | 0.000 | Required | 0.5537 | 8.244 | 1153.5 | 0.5537 | 13.332 | 1196.3 | 0.5446 |
| 7 | 0.000 | | 0.4967 | 8.214 | 1150.5 | 0.4967 | 13.199 | 1177.9 | 0.4876 |
| 8 | 0.000 | | 0.4492 | 8.204 | 1149.5 | 0.4492 | 13.116 | 1165.1 | 0.4409 |
| 9 | 0.000 | | 0.4094 | 8.390 | 1168.5 | 0.4094 | 13.369 | 1176.9 | 0.4019 |
| 10 | 0.000 | | 0.3757 | 8.297 | 1158.9 | 0.3757 | 13.217 | 1166.5 | 0.3688 |
| 11 | 0.000 | | 0.3472 | 8.117 | 1140.7 | 0.3472 | 12.960 | 1153.1 | 0.3409 |
| 12 | 0.000 | | 0.3233 | 7.884 | 1117.6 | 0.3233 | 12.651 | 1140.1 | 0.3173 |
| 13 | 0.000 | | 0.3031 | 7.614 | 1091.4 | 0.3031 | 12.315 | 1128.9 | 0.2972 |
| 14 | 0.000 | | 0.2857 | 7.310 | 1062.6 | 0.2857 | 11.953 | 1119.1 | 0.2799 |
| 15 | 0.000 | | 0.2708 | 6.966 | 1031.1 | 0.2708 | 11.543 | 1108.1 | 0.2647 |
| 16 | 0.000 | | 0.2580 | 6.566 | 995.7 | 0.2580 | 11.033 | 1090.1 | 0.2515 |
| 17 | 0.000 | | 0.2470 | 6.061 | 952.9 | 0.2470 | 10.327 | 1057.8 | 0.2401 |
| 18 | 0.000 | | 0.2379 | 5.297 | 891.8 | 0.2379 | 9.190 | 1000.7 | 0.2304 |
| 19 | 0.000 | | 0.2304 | 4.811 | 855.1 | 0.2304 | 8.401 | 956.8 | 0.2224 |
| 20 | 0.000 | | 0.2240 | 4.411 | 826.1 | 0.2240 | 7.708 | 916.2 | 0.2156 |
| 21 | 0.000 | | 0.2184 | 4.058 | 801.4 | 0.2184 | 7.053 | 876.4 | 0.2098 |
| 22 | 0.000 | | 0.2136 | 3.423 | 758.8 | 0.2136 | 5.938 | 816.8 | 0.2048 |
| 23 | 0.000 | | 0.2098 | 2.703 | 713.3 | 0.2098 | 4.676 | 754.5 | 0.2008 |
| 24 | 0.000 | | 0.2072 | 1.045 | 618.0 | 0.2072 | 1.848 | 635.6 | 0.1980 |
| 25 | 0.000 | | 0.2062 | 0.668 | 597.9 | 0.2062 | 1.174 | 606.9 | 0.1971 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.365 | 641.8 | 0.7396 | 3.388 | 635.5 | 0.7396 | | | |
| 2 | 12.428 | 905.0 | 0.7396 | 12.513 | 879.9 | 0.7396 | | | |
| 3 | 16.960 | 964.4 | 0.7250 | 17.069 | 926.5 | 0.7251 | | | |
| 4 | 19.187 | 1002.5 | 0.6769 | 19.308 | 978.8 | 0.677 | | | |
| 5 | 19.841 | 1006.9 | 0.6161 | 19.966 | 996.9 | 0.6163 | | | |
| 6 | 19.863 | 1006.9 | 0.5555 | 19.990 | 1006.1 | 0.5558 | | | |
| 7 | 19.768 | 1010.4 | 0.5025 | 19.896 | 1010.8 | 0.5028 | | | |
| 8 | 19.763 | 1017.4 | 0.4580 | 19.892 | 1015.4 | 0.4584 | | | |
| 9 | 20.204 | 1034.7 | 0.4200 | 20.336 | 1029.6 | 0.4203 | | | |
| 10 | 20.175 | 1046.2 | 0.3874 | 20.306 | 1024.8 | 0.3876 | | | |
| 11 | 20.055 | 1059.2 | 0.3595 | 20.185 | 1020.1 | 0.3597 | | | |
| 12 | 19.892 | 1073.2 | 0.3355 | 20.019 | 1006.1 | 0.3357 | | | |
| 13 | 19.704 | 1087.5 | 0.3147 | 19.829 | 996.9 | 0.3149 | | | |
| 14 | 19.487 | 1101.8 | 0.2964 | 19.609 | 983.3 | 0.2967 | | | |
| 15 | 19.205 | 1114.6 | 0.2803 | 19.323 | 965.4 | 0.2805 | | | |
| 16 | 18.797 | 1124.9 | 0.2660 | 18.910 | 943.6 | 0.2662 | | | |
| 17 | 18.133 | 1129.2 | 0.2535 | 18.241 | 922.3 | 0.2537 | | | |
| 18 | 16.909 | 1120.4 | 0.2428 | 17.011 | 897.4 | 0.2430 | | | |
| 19 | 15.904 | 1098.8 | 0.2332 | 15.999 | 869.2 | 0.2334 | | | |
| 20 | 14.832 | 1061.9 | 0.2245 | 14.920 | 842.0 | 0.2247 | | | |
| 21 | 13.554 | 1004.2 | 0.2168 | 13.632 | 804.7 | 0.2169 | | | |
| 22 | 11.462 | 920.4 | 0.2104 | 11.528 | 762.2 | 0.2105 | | | |
| 23 | 8.982 | 826.3 | 0.2053 | 9.033 | 712.2 | 0.2055 | | | |
| 24 | 3.618 | 660.7 | 0.2020 | 3.638 | 618.5 | 0.2022 | | | |
| 25 | 2.259 | 621.7 | 0.2005 | 2.271 | 596.0 | 0.2008 | | | |

Table 4-98. LS1 Burnup and TH Feedback Parameters Assembly F12

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.328 | 643.2 | 0.7396 | 2.130 | 645.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.910 | 918.0 | 0.7396 | 7.896 | 933.4 | 0.7396 |
| 3 | 0.000 | | 0.7259 | 6.766 | 1013.2 | 0.7259 | 11.063 | 1062.7 | 0.7236 |
| 4 | 0.000 | Data | 0.6776 | 7.852 | 1114.4 | 0.6776 | 12.889 | 1187.2 | 0.6720 |
| 5 | 0.000 | Not | 0.6142 | 8.274 | 1156.6 | 0.6142 | 13.513 | 1223.6 | 0.6055 |
| 6 | 0.000 | Required | 0.5493 | 8.355 | 1164.9 | 0.5493 | 13.548 | 1215.2 | 0.5392 |
| 7 | 0.000 | | 0.4921 | 8.332 | 1162.5 | 0.4921 | 13.426 | 1197.3 | 0.4821 |
| 8 | 0.000 | | 0.4447 | 8.325 | 1161.8 | 0.4447 | 13.353 | 1185.6 | 0.4354 |
| 9 | 0.000 | | 0.4051 | 8.514 | 1181.3 | 0.4051 | 13.617 | 1199.0 | 0.3965 |
| 10 | 0.000 | | 0.3713 | 8.416 | 1171.1 | 0.3713 | 13.468 | 1189.8 | 0.3635 |
| 11 | 0.000 | | 0.3431 | 8.224 | 1151.5 | 0.3431 | 13.209 | 1177.9 | 0.3357 |
| 12 | 0.000 | | 0.3194 | 7.975 | 1126.5 | 0.3194 | 12.894 | 1166.3 | 0.3123 |
| 13 | 0.000 | | 0.2993 | 7.689 | 1098.6 | 0.2993 | 12.548 | 1155.9 | 0.2922 |
| 14 | 0.000 | | 0.2821 | 7.367 | 1068.0 | 0.2821 | 12.167 | 1145.7 | 0.2749 |
| 15 | 0.000 | | 0.2674 | 7.004 | 1034.5 | 0.2674 | 11.728 | 1132.8 | 0.2600 |
| 16 | 0.000 | | 0.2548 | 6.582 | 997.1 | 0.2548 | 11.177 | 1111.1 | 0.2469 |
| 17 | 0.000 | | 0.2440 | 6.056 | 952.4 | 0.2440 | 10.423 | 1073.9 | 0.2356 |
| 18 | 0.000 | | 0.2351 | 5.271 | 889.8 | 0.2351 | 9.233 | 1011.0 | 0.2261 |
| 19 | 0.000 | | 0.2278 | 4.773 | 852.3 | 0.2278 | 8.404 | 962.6 | 0.2183 |
| 20 | 0.000 | | 0.2216 | 4.367 | 823.0 | 0.2216 | 7.683 | 918.8 | 0.2117 |
| 21 | 0.000 | | 0.2163 | 4.017 | 798.6 | 0.2163 | 7.017 | 877.0 | 0.2062 |
| 22 | 0.000 | | 0.2117 | 3.390 | 756.7 | 0.2117 | 5.903 | 816.5 | 0.2014 |
| 23 | 0.000 | | 0.2079 | 2.685 | 712.2 | 0.2079 | 4.656 | 754.3 | 0.1976 |
| 24 | 0.000 | | 0.2053 | 1.043 | 617.9 | 0.2053 | 1.848 | 635.7 | 0.1948 |
| 25 | 0.000 | | 0.2043 | 0.671 | 598.1 | 0.2043 | 1.182 | 608.6 | 0.1939 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.450 | 644.8 | 0.7396 | 3.476 | 645.8 | 0.7396 | | | |
| 2 | 12.686 | 918.0 | 0.7396 | 12.782 | 931.0 | 0.7396 | | | |
| 3 | 17.269 | 978.1 | 0.7234 | 17.392 | 987.8 | 0.7234 | | | |
| 4 | 19.521 | 1016.1 | 0.6734 | 19.655 | 1039.1 | 0.6734 | | | |
| 5 | 20.184 | 1019.6 | 0.6109 | 20.322 | 1058.4 | 0.6111 | | | |
| 6 | 20.214 | 1019.2 | 0.5495 | 20.353 | 1063.3 | 0.5497 | | | |
| 7 | 20.131 | 1022.7 | 0.4963 | 20.270 | 1063.3 | 0.4964 | | | |
| 8 | 20.138 | 1030.1 | 0.4518 | 20.277 | 1063.3 | 0.4520 | | | |
| 9 | 20.598 | 1048.4 | 0.4139 | 20.739 | 1073.2 | 0.4140 | | | |
| 10 | 20.581 | 1060.9 | 0.3813 | 20.721 | 1068.3 | 0.3814 | | | |
| 11 | 20.465 | 1074.6 | 0.3535 | 20.604 | 1063.3 | 0.3537 | | | |
| 12 | 20.301 | 1089.3 | 0.3297 | 20.437 | 1048.7 | 0.3298 | | | |
| 13 | 20.109 | 1104.5 | 0.3090 | 20.242 | 1034.3 | 0.3091 | | | |
| 14 | 19.880 | 1119.7 | 0.2909 | 20.010 | 1020.1 | 0.2910 | | | |
| 15 | 19.578 | 1133.7 | 0.2749 | 19.703 | 996.9 | 0.2750 | | | |
| 16 | 19.137 | 1145.0 | 0.2608 | 19.257 | 974.3 | 0.2609 | | | |
| 17 | 18.429 | 1149.7 | 0.2484 | 18.544 | 952.3 | 0.2485 | | | |
| 18 | 17.150 | 1140.5 | 0.2379 | 17.258 | 922.3 | 0.2380 | | | |
| 19 | 16.092 | 1117.2 | 0.2284 | 16.194 | 897.4 | 0.2285 | | | |
| 20 | 14.973 | 1077.9 | 0.2199 | 15.068 | 869.2 | 0.2200 | | | |
| 21 | 13.660 | 1017.1 | 0.2124 | 13.744 | 826.9 | 0.2124 | | | |
| 22 | 11.540 | 929.7 | 0.2060 | 11.611 | 779.6 | 0.2062 | | | |
| 23 | 9.051 | 832.8 | 0.2010 | 9.106 | 725.2 | 0.2012 | | | |
| 24 | 3.663 | 663.3 | 0.1978 | 3.685 | 624.2 | 0.1979 | | | |
| 25 | 2.302 | 623.6 | 0.1964 | 2.316 | 601.6 | 0.1965 | | | |

Table 4-99. LS1 Burnup and TH Feedback Parameters Assembly F13

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|-------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.304 | 641.6 | 0.7396 | 2.111 | 646.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.845 | 912.3 | 0.7396 | 7.851 | 936.5 | 0.7396 |
| 3 | 0.000 | | 0.7262 | 6.694 | 1006.9 | 0.7262 | 11.017 | 1066.9 | 0.7234 |
| 4 | 0.000 | Data | 0.6782 | 7.809 | 1110.2 | 0.6782 | 12.888 | 1194.6 | 0.6713 |
| 5 | 0.000 | Not | 0.6147 | 8.286 | 1157.8 | 0.6147 | 13.593 | 1236.2 | 0.6043 |
| 6 | 0.000 | Required | 0.5492 | 8.426 | 1172.2 | 0.5492 | 13.710 | 1231.9 | 0.5373 |
| 7 | 0.000 | | 0.4913 | 8.451 | 1174.8 | 0.4913 | 13.654 | 1217.0 | 0.4795 |
| 8 | 0.000 | | 0.4432 | 8.482 | 1178.0 | 0.4432 | 13.625 | 1206.2 | 0.4324 |
| 9 | 0.000 | | 0.4029 | 8.701 | 1200.9 | 0.4029 | 13.920 | 1220.0 | 0.3931 |
| 10 | 0.000 | | 0.3687 | 8.622 | 1192.6 | 0.3687 | 13.793 | 1211.2 | 0.3597 |
| 11 | 0.000 | | 0.3400 | 8.439 | 1173.5 | 0.3400 | 13.550 | 1200.4 | 0.3317 |
| 12 | 0.000 | | 0.3160 | 8.194 | 1148.5 | 0.3160 | 13.244 | 1189.5 | 0.3080 |
| 13 | 0.000 | | 0.2957 | 7.905 | 1119.6 | 0.2957 | 12.903 | 1180.2 | 0.2879 |
| 14 | 0.000 | | 0.2784 | 7.574 | 1087.5 | 0.2784 | 12.524 | 1171.8 | 0.2704 |
| 15 | 0.000 | | 0.2635 | 7.193 | 1051.8 | 0.2635 | 12.080 | 1160.8 | 0.2553 |
| 16 | 0.000 | | 0.2508 | 6.747 | 1011.6 | 0.2508 | 11.515 | 1140.3 | 0.2422 |
| 17 | 0.000 | | 0.2401 | 6.195 | 964.0 | 0.2401 | 10.731 | 1101.4 | 0.2309 |
| 18 | 0.000 | | 0.2311 | 5.380 | 898.2 | 0.2311 | 9.492 | 1033.8 | 0.2213 |
| 19 | 0.000 | | 0.2238 | 4.859 | 858.6 | 0.2238 | 8.615 | 980.6 | 0.2136 |
| 20 | 0.000 | | 0.2177 | 4.435 | 827.8 | 0.2177 | 7.849 | 932.2 | 0.2070 |
| 21 | 0.000 | | 0.2124 | 4.077 | 802.7 | 0.2124 | 7.150 | 886.5 | 0.2015 |
| 22 | 0.000 | | 0.2079 | 3.443 | 760.1 | 0.2079 | 6.010 | 823.0 | 0.1969 |
| 23 | 0.000 | | 0.2042 | 2.732 | 715.1 | 0.2042 | 4.744 | 758.8 | 0.1932 |
| 24 | 0.000 | | 0.2016 | 1.063 | 619.0 | 0.2016 | 1.887 | 637.5 | 0.1904 |
| 25 | 0.000 | | 0.2006 | 0.686 | 598.9 | 0.2006 | 1.209 | 609.7 | 0.1895 |

| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 3.551 | 653.0 | 0.7396 | 3.571 | 625.3 | 0.7396 |
| 2 | 13.032 | 954.5 | 0.7396 | 13.104 | 822.8 | 0.7396 |
| 3 | 17.651 | 1016.3 | 0.7211 | 17.743 | 857.5 | 0.7212 |
| 4 | 19.917 | 1052.9 | 0.6690 | 20.019 | 897.4 | 0.6693 |
| 5 | 20.625 | 1053.2 | 0.6050 | 20.732 | 918.1 | 0.6055 |
| 6 | 20.715 | 1050.6 | 0.5426 | 20.824 | 926.5 | 0.5431 |
| 7 | 20.684 | 1053.0 | 0.4886 | 20.796 | 939.3 | 0.4892 |
| 8 | 20.730 | 1060.1 | 0.4437 | 20.843 | 943.6 | 0.4444 |
| 9 | 21.224 | 1079.3 | 0.4056 | 21.339 | 952.3 | 0.4062 |
| 10 | 21.234 | 1092.6 | 0.3729 | 21.349 | 952.3 | 0.3735 |
| 11 | 21.137 | 1107.1 | 0.3451 | 21.251 | 947.9 | 0.3457 |
| 12 | 20.985 | 1122.6 | 0.3213 | 21.097 | 939.3 | 0.3218 |
| 13 | 20.801 | 1138.6 | 0.3006 | 20.911 | 930.7 | 0.3011 |
| 14 | 20.578 | 1154.7 | 0.2825 | 20.685 | 918.1 | 0.2829 |
| 15 | 20.279 | 1169.9 | 0.2665 | 20.383 | 905.6 | 0.2669 |
| 16 | 19.834 | 1182.7 | 0.2524 | 19.934 | 889.3 | 0.2529 |
| 17 | 19.113 | 1189.4 | 0.2401 | 19.208 | 869.2 | 0.2405 |
| 18 | 17.805 | 1182.0 | 0.2294 | 17.896 | 853.6 | 0.2298 |
| 19 | 16.705 | 1158.5 | 0.2200 | 16.791 | 834.4 | 0.2204 |
| 20 | 15.529 | 1116.4 | 0.2115 | 15.609 | 812.0 | 0.2119 |
| 21 | 14.150 | 1050.2 | 0.2041 | 14.222 | 783.1 | 0.2045 |
| 22 | 11.967 | 956.6 | 0.1979 | 12.028 | 745.1 | 0.1984 |
| 23 | 9.410 | 853.0 | 0.1931 | 9.456 | 696.2 | 0.1935 |
| 24 | 3.827 | 670.7 | 0.1899 | 3.846 | 615.6 | 0.1902 |
| 25 | 2.415 | 628.4 | 0.1885 | 2.425 | 590.5 | 0.1889 |

Table 4-100. LS1 Burnup and TH Feedback Parameters Assembly F14

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|-------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.446 | 651.0 | 0.7396 | 2.194 | 639.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.353 | 958.4 | 0.7396 | 8.128 | 901.3 | 0.7396 |
| 3 | 0.000 | | 0.7203 | 7.309 | 1062.5 | 0.7203 | 11.262 | 1009.7 | 0.7220 |
| 4 | 0.000 | Data | 0.6659 | 8.352 | 1164.6 | 0.6659 | 12.964 | 1114.0 | 0.6693 |
| 5 | 0.000 | Not | 0.5977 | 8.674 | 1198.1 | 0.5977 | 13.503 | 1150.7 | 0.6026 |
| 6 | 0.000 | Required | 0.5312 | 8.668 | 1197.4 | 0.5312 | 13.511 | 1153.1 | 0.5368 |
| 7 | 0.000 | | 0.4750 | 8.580 | 1188.2 | 0.4750 | 13.379 | 1145.6 | 0.4803 |
| 8 | 0.000 | | 0.4293 | 8.507 | 1180.6 | 0.4293 | 13.280 | 1141.1 | 0.4343 |
| 9 | 0.000 | | 0.3912 | 8.637 | 1194.2 | 0.3912 | 13.509 | 1158.2 | 0.3958 |
| 10 | 0.000 | | 0.3589 | 8.493 | 1179.1 | 0.3589 | 13.350 | 1155.6 | 0.3632 |
| 11 | 0.000 | | 0.3320 | 8.277 | 1156.9 | 0.3320 | 13.111 | 1151.6 | 0.3358 |
| 12 | 0.000 | | 0.3093 | 8.014 | 1130.4 | 0.3093 | 12.834 | 1149.2 | 0.3126 |
| 13 | 0.000 | | 0.2901 | 7.719 | 1101.5 | 0.2901 | 12.524 | 1146.6 | 0.2928 |
| 14 | 0.000 | | 0.2737 | 7.394 | 1070.5 | 0.2737 | 12.155 | 1139.1 | 0.2756 |
| 15 | 0.000 | | 0.2597 | 7.030 | 1036.9 | 0.2597 | 11.698 | 1123.3 | 0.2607 |
| 16 | 0.000 | | 0.2475 | 6.613 | 999.8 | 0.2475 | 11.121 | 1096.8 | 0.2478 |
| 17 | 0.000 | | 0.2372 | 6.098 | 955.9 | 0.2372 | 10.359 | 1057.1 | 0.2367 |
| 18 | 0.000 | | 0.2286 | 5.325 | 893.9 | 0.2286 | 9.184 | 995.7 | 0.2273 |
| 19 | 0.000 | | 0.2216 | 4.822 | 855.9 | 0.2216 | 8.358 | 949.2 | 0.2195 |
| 20 | 0.000 | | 0.2155 | 4.393 | 824.8 | 0.2155 | 7.622 | 907.1 | 0.2129 |
| 21 | 0.000 | | 0.2103 | 4.013 | 798.3 | 0.2103 | 6.934 | 866.9 | 0.2072 |
| 22 | 0.000 | | 0.2058 | 3.365 | 755.0 | 0.2058 | 5.810 | 808.5 | 0.2023 |
| 23 | 0.000 | | 0.2022 | 2.645 | 709.7 | 0.2022 | 4.557 | 747.8 | 0.1985 |
| 24 | 0.000 | | 0.1997 | 1.015 | 616.4 | 0.1997 | 1.786 | 632.6 | 0.1959 |
| 25 | 0.000 | | 0.1988 | 0.649 | 596.9 | 0.1988 | 1.131 | 606.0 | 0.1949 |

| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 3.326 | 632.2 | 0.7396 | 3.348 | 632.1 | 0.7396 |
| 2 | 12.239 | 857.7 | 0.7396 | 12.321 | 866.4 | 0.7396 |
| 3 | 16.617 | 906.7 | 0.7252 | 16.725 | 922.3 | 0.7253 |
| 4 | 18.767 | 943.6 | 0.6774 | 18.890 | 987.8 | 0.6775 |
| 5 | 19.450 | 955.8 | 0.6172 | 19.581 | 1024.8 | 0.6174 |
| 6 | 19.551 | 963.7 | 0.5576 | 19.686 | 1043.9 | 0.5578 |
| 7 | 19.531 | 973.4 | 0.5054 | 19.667 | 1048.7 | 0.5057 |
| 8 | 19.564 | 984.9 | 0.4616 | 19.703 | 1063.3 | 0.4618 |
| 9 | 20.019 | 1005.0 | 0.4238 | 20.162 | 1083.2 | 0.4240 |
| 10 | 20.010 | 1018.6 | 0.3914 | 20.155 | 1093.2 | 0.3914 |
| 11 | 19.922 | 1032.5 | 0.3635 | 20.068 | 1098.3 | 0.3637 |
| 12 | 19.799 | 1046.9 | 0.3395 | 19.945 | 1098.3 | 0.3396 |
| 13 | 19.644 | 1061.6 | 0.3187 | 19.791 | 1103.4 | 0.3188 |
| 14 | 19.434 | 1076.8 | 0.3005 | 19.581 | 1103.4 | 0.3005 |
| 15 | 19.130 | 1091.8 | 0.2845 | 19.275 | 1093.2 | 0.2845 |
| 16 | 18.682 | 1104.5 | 0.2704 | 18.823 | 1073.2 | 0.2704 |
| 17 | 17.987 | 1111.2 | 0.2581 | 18.123 | 1048.7 | 0.2581 |
| 18 | 16.741 | 1104.1 | 0.2477 | 16.871 | 1020.1 | 0.2477 |
| 19 | 15.712 | 1084.1 | 0.2382 | 15.835 | 987.8 | 0.2382 |
| 20 | 14.608 | 1048.9 | 0.2294 | 14.723 | 952.3 | 0.2294 |
| 21 | 13.315 | 993.5 | 0.2215 | 13.418 | 901.5 | 0.2214 |
| 22 | 11.232 | 912.1 | 0.2150 | 11.320 | 842.0 | 0.2150 |
| 23 | 8.780 | 820.3 | 0.2097 | 8.849 | 772.6 | 0.2097 |
| 24 | 3.512 | 658.1 | 0.2066 | 3.541 | 644.5 | 0.2066 |
| 25 | 2.179 | 619.6 | 0.2050 | 2.198 | 615.6 | 0.2049 |

Table 4-101. LS1 Burnup and TH Feedback Parameters Assembly F15

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.418 | 649.1 | 0.7396 | 2.193 | 642.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.225 | 946.6 | 0.7396 | 8.097 | 916.0 | 0.7396 |
| 3 | 0.000 | | 0.7214 | 7.157 | 1048.5 | 0.7214 | 11.266 | 1033.4 | 0.7213 |
| 4 | 0.000 | Data | 0.6677 | 8.248 | 1153.9 | 0.6677 | 13.059 | 1147.6 | 0.6677 |
| 5 | 0.000 | Not | 0.5996 | 8.645 | 1195.0 | 0.5996 | 13.684 | 1187.5 | 0.5998 |
| 6 | 0.000 | Required | 0.5325 | 8.708 | 1201.6 | 0.5325 | 13.753 | 1188.6 | 0.5328 |
| 7 | 0.000 | | 0.4755 | 8.678 | 1198.5 | 0.4755 | 13.672 | 1179.5 | 0.4757 |
| 8 | 0.000 | | 0.4290 | 8.662 | 1196.8 | 0.4290 | 13.624 | 1173.9 | 0.4291 |
| 9 | 0.000 | | 0.3901 | 8.845 | 1216.2 | 0.3901 | 13.905 | 1191.3 | 0.3904 |
| 10 | 0.000 | | 0.3571 | 8.736 | 1204.6 | 0.3571 | 13.780 | 1188.4 | 0.3574 |
| 11 | 0.000 | | 0.3296 | 8.535 | 1183.5 | 0.3296 | 13.562 | 1185.4 | 0.3298 |
| 12 | 0.000 | | 0.3064 | 8.277 | 1156.9 | 0.3064 | 13.300 | 1184.7 | 0.3064 |
| 13 | 0.000 | | 0.2870 | 7.979 | 1126.9 | 0.2870 | 12.997 | 1183.8 | 0.2865 |
| 14 | 0.000 | | 0.2703 | 7.640 | 1093.9 | 0.2703 | 12.619 | 1176.9 | 0.2692 |
| 15 | 0.000 | | 0.2560 | 7.251 | 1057.2 | 0.2560 | 12.127 | 1158.9 | 0.2542 |
| 16 | 0.000 | | 0.2438 | 6.795 | 1015.8 | 0.2438 | 11.487 | 1127.4 | 0.2413 |
| 17 | 0.000 | | 0.2335 | 6.232 | 967.1 | 0.2335 | 10.639 | 1080.3 | 0.2302 |
| 18 | 0.000 | | 0.2248 | 5.411 | 900.6 | 0.2248 | 9.373 | 1011.0 | 0.2209 |
| 19 | 0.000 | | 0.2178 | 4.877 | 860.0 | 0.2178 | 8.479 | 958.5 | 0.2133 |
| 20 | 0.000 | | 0.2118 | 4.439 | 828.1 | 0.2118 | 7.709 | 912.6 | 0.2069 |
| 21 | 0.000 | | 0.2067 | 4.067 | 802.0 | 0.2067 | 7.012 | 870.0 | 0.2014 |
| 22 | 0.000 | | 0.2023 | 3.430 | 759.3 | 0.2023 | 5.893 | 810.6 | 0.1967 |
| 23 | 0.000 | | 0.1988 | 2.719 | 714.3 | 0.1988 | 4.650 | 749.9 | 0.1931 |
| 24 | 0.000 | | 0.1962 | 1.054 | 618.5 | 0.1962 | 1.841 | 634.1 | 0.1905 |
| 25 | 0.000 | | 0.1953 | 0.679 | 598.5 | 0.1953 | 1.175 | 607.2 | 0.1895 |
| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.485 | 642.9 | 0.7396 | 3.506 | 628.7 | 0.7396 | | | |
| 2 | 12.750 | 905.6 | 0.7396 | 12.826 | 840.0 | 0.7396 | | | |
| 3 | 17.265 | 960.2 | 0.7226 | 17.363 | 881.2 | 0.7227 | | | |
| 4 | 19.496 | 998.5 | 0.6719 | 19.605 | 926.5 | 0.6721 | | | |
| 5 | 20.210 | 1006.5 | 0.6089 | 20.326 | 956.6 | 0.6093 | | | |
| 6 | 20.320 | 1010.2 | 0.5472 | 20.438 | 965.4 | 0.5477 | | | |
| 7 | 20.309 | 1016.5 | 0.4938 | 20.430 | 978.8 | 0.4943 | | | |
| 8 | 20.365 | 1026.1 | 0.4493 | 20.487 | 983.3 | 0.4498 | | | |
| 9 | 20.858 | 1045.7 | 0.4112 | 20.983 | 996.9 | 0.4117 | | | |
| 10 | 20.876 | 1059.3 | 0.3786 | 21.002 | 1001.5 | 0.3791 | | | |
| 11 | 20.805 | 1073.4 | 0.3508 | 20.929 | 992.4 | 0.3512 | | | |
| 12 | 20.689 | 1087.5 | 0.3269 | 20.811 | 983.3 | 0.3273 | | | |
| 13 | 20.537 | 1102.4 | 0.3061 | 20.657 | 974.3 | 0.3066 | | | |
| 14 | 20.319 | 1118.4 | 0.2881 | 20.436 | 961.0 | 0.2884 | | | |
| 15 | 19.989 | 1134.9 | 0.2722 | 20.102 | 943.6 | 0.2725 | | | |
| 16 | 19.492 | 1149.6 | 0.2583 | 19.601 | 926.5 | 0.2586 | | | |
| 17 | 18.723 | 1157.9 | 0.2462 | 18.828 | 909.7 | 0.2465 | | | |
| 18 | 17.396 | 1151.5 | 0.2358 | 17.495 | 885.2 | 0.2361 | | | |
| 19 | 16.286 | 1129.3 | 0.2264 | 16.380 | 865.3 | 0.2268 | | | |
| 20 | 15.119 | 1089.6 | 0.2179 | 15.206 | 838.2 | 0.2183 | | | |
| 21 | 13.766 | 1027.2 | 0.2103 | 13.845 | 808.4 | 0.2106 | | | |
| 22 | 11.635 | 938.5 | 0.2040 | 11.702 | 765.6 | 0.2043 | | | |
| 23 | 9.136 | 839.6 | 0.1990 | 9.188 | 715.4 | 0.1993 | | | |
| 24 | 3.694 | 665.6 | 0.1958 | 3.715 | 621.3 | 0.1961 | | | |
| 25 | 2.317 | 624.8 | 0.1944 | 2.329 | 596.0 | 0.1946 | | | |

Table 4-102. LS1 Burnup and TH Feedback Parameters Assembly F16

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.477 | 653.0 | 0.7396 | 2.202 | 637.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.475 | 969.8 | 0.7396 | 8.197 | 893.5 | 0.7396 |
| 3 | 0.000 | | 0.7180 | 7.540 | 1084.3 | 0.7180 | 11.481 | 1007.9 | 0.7198 |
| 4 | 0.000 | Data | 0.6603 | 8.648 | 1195.3 | 0.6603 | 13.275 | 1116.5 | 0.6646 |
| 5 | 0.000 | Not | 0.5889 | 8.958 | 1228.4 | 0.5889 | 13.801 | 1153.1 | 0.5960 |
| 6 | 0.000 | Required | 0.5212 | 8.911 | 1223.3 | 0.5212 | 13.755 | 1153.3 | 0.5298 |
| 7 | 0.000 | | 0.4652 | 8.789 | 1210.2 | 0.4652 | 13.576 | 1143.5 | 0.4739 |
| 8 | 0.000 | | 0.4202 | 8.699 | 1200.7 | 0.4202 | 13.453 | 1137.9 | 0.4284 |
| 9 | 0.000 | | 0.3826 | 8.829 | 1214.5 | 0.3826 | 13.683 | 1155.0 | 0.3904 |
| 10 | 0.000 | | 0.3509 | 8.673 | 1197.9 | 0.3509 | 13.519 | 1153.7 | 0.3582 |
| 11 | 0.000 | | 0.3244 | 8.438 | 1173.4 | 0.3244 | 13.286 | 1154.0 | 0.3312 |
| 12 | 0.000 | | 0.3022 | 8.156 | 1144.6 | 0.3022 | 13.050 | 1162.0 | 0.3085 |
| 13 | 0.000 | | 0.2834 | 7.843 | 1113.5 | 0.2834 | 12.795 | 1172.1 | 0.2889 |
| 14 | 0.000 | | 0.2674 | 7.498 | 1080.3 | 0.2674 | 12.453 | 1172.7 | 0.2718 |
| 15 | 0.000 | | 0.2537 | 7.113 | 1044.5 | 0.2537 | 11.970 | 1155.6 | 0.2568 |
| 16 | 0.000 | | 0.2419 | 6.669 | 1004.7 | 0.2419 | 11.332 | 1122.5 | 0.2439 |
| 17 | 0.000 | | 0.2318 | 6.118 | 957.6 | 0.2318 | 10.486 | 1074.1 | 0.2327 |
| 18 | 0.000 | | 0.2234 | 5.311 | 892.8 | 0.2234 | 9.227 | 1004.2 | 0.2235 |
| 19 | 0.000 | | 0.2166 | 4.778 | 852.7 | 0.2166 | 8.336 | 952.3 | 0.2158 |
| 20 | 0.000 | | 0.2108 | 4.341 | 821.1 | 0.2108 | 7.571 | 907.2 | 0.2093 |
| 21 | 0.000 | | 0.2058 | 3.962 | 794.8 | 0.2058 | 6.872 | 865.5 | 0.2039 |
| 22 | 0.000 | | 0.2016 | 3.323 | 752.3 | 0.2016 | 5.752 | 806.6 | 0.1991 |
| 23 | 0.000 | | 0.1982 | 2.620 | 708.2 | 0.1982 | 4.516 | 746.1 | 0.1955 |
| 24 | 0.000 | | 0.1957 | 1.017 | 616.5 | 0.1957 | 1.786 | 632.4 | 0.1930 |
| 25 | 0.000 | | 0.1947 | 0.656 | 597.3 | 0.1947 | 1.140 | 606.2 | 0.1920 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.406 | 637.0 | 0.7396 | 3.432 | 645.8 | 0.7396 | | | |
| 2 | 12.619 | 884.9 | 0.7396 | 12.716 | 935.7 | 0.7396 | | | |
| 3 | 17.262 | 941.7 | 0.7225 | 17.388 | 1001.5 | 0.7226 | | | |
| 4 | 19.526 | 982.0 | 0.6715 | 19.665 | 1063.3 | 0.6716 | | | |
| 5 | 20.165 | 992.0 | 0.6088 | 20.308 | 1083.2 | 0.6089 | | | |
| 6 | 20.171 | 996.6 | 0.5480 | 20.314 | 1083.2 | 0.5482 | | | |
| 7 | 20.064 | 1003.1 | 0.4958 | 20.206 | 1078.2 | 0.4959 | | | |
| 8 | 20.037 | 1011.7 | 0.4521 | 20.180 | 1083.2 | 0.4522 | | | |
| 9 | 20.468 | 1030.1 | 0.4146 | 20.614 | 1098.3 | 0.4147 | | | |
| 10 | 20.429 | 1041.7 | 0.3825 | 20.576 | 1103.4 | 0.3826 | | | |
| 11 | 20.320 | 1053.4 | 0.3552 | 20.466 | 1098.3 | 0.3552 | | | |
| 12 | 20.204 | 1064.8 | 0.3315 | 20.348 | 1088.2 | 0.3315 | | | |
| 13 | 20.071 | 1076.5 | 0.3109 | 20.213 | 1078.2 | 0.3110 | | | |
| 14 | 19.867 | 1090.0 | 0.2929 | 20.006 | 1063.3 | 0.2930 | | | |
| 15 | 19.531 | 1104.5 | 0.2772 | 19.667 | 1048.7 | 0.2772 | | | |
| 16 | 19.025 | 1117.7 | 0.2633 | 19.155 | 1020.1 | 0.2633 | | | |
| 17 | 18.246 | 1124.5 | 0.2513 | 18.369 | 987.8 | 0.2513 | | | |
| 18 | 16.912 | 1116.9 | 0.2412 | 17.027 | 952.3 | 0.2412 | | | |
| 19 | 15.798 | 1094.7 | 0.2318 | 15.906 | 922.3 | 0.2318 | | | |
| 20 | 14.642 | 1056.9 | 0.2234 | 14.741 | 885.2 | 0.2234 | | | |
| 21 | 13.311 | 998.7 | 0.2157 | 13.399 | 842.0 | 0.2157 | | | |
| 22 | 11.202 | 914.4 | 0.2094 | 11.276 | 790.3 | 0.2094 | | | |
| 23 | 8.750 | 821.1 | 0.2043 | 8.808 | 735.1 | 0.2043 | | | |
| 24 | 3.523 | 658.8 | 0.2013 | 3.548 | 632.8 | 0.2013 | | | |
| 25 | 2.205 | 620.6 | 0.1997 | 2.220 | 604.4 | 0.1997 | | | |

Table 4-103. LS1 Burnup and TH Feedback Parameters Assembly F17

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.333 | 643.5 | 0.7396 | 2.030 | 633.9 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.895 | 916.7 | 0.7396 | 7.470 | 871.9 | 0.7396 |
| 3 | 0.000 | | 0.7250 | 6.692 | 1006.7 | 0.7250 | 10.399 | 973.5 | 0.7262 |
| 4 | 0.000 | Data | 0.6762 | 7.756 | 1105.1 | 0.6762 | 12.174 | 1082.1 | 0.6786 |
| 5 | 0.000 | Not | 0.6128 | 8.225 | 1151.6 | 0.6128 | 12.938 | 1130.9 | 0.6163 |
| 6 | 0.000 | Required | 0.5478 | 8.396 | 1169.1 | 0.5478 | 13.177 | 1142.5 | 0.5519 |
| 7 | 0.000 | | 0.4904 | 8.462 | 1175.9 | 0.4904 | 13.233 | 1140.8 | 0.4943 |
| 8 | 0.000 | | 0.4425 | 8.519 | 1181.8 | 0.4425 | 13.285 | 1139.9 | 0.4463 |
| 9 | 0.000 | | 0.4023 | 8.752 | 1206.3 | 0.4023 | 13.630 | 1159.2 | 0.4059 |
| 10 | 0.000 | | 0.3679 | 8.687 | 1199.4 | 0.3679 | 13.556 | 1157.6 | 0.3715 |
| 11 | 0.000 | | 0.3391 | 8.530 | 1183.0 | 0.3391 | 13.379 | 1154.2 | 0.3426 |
| 12 | 0.000 | | 0.3149 | 8.328 | 1162.1 | 0.3149 | 13.161 | 1151.4 | 0.3180 |
| 13 | 0.000 | | 0.2943 | 8.085 | 1137.5 | 0.2943 | 12.897 | 1147.8 | 0.2971 |
| 14 | 0.000 | | 0.2766 | 7.787 | 1108.1 | 0.2766 | 12.550 | 1139.4 | 0.2790 |
| 15 | 0.000 | | 0.2615 | 7.411 | 1072.1 | 0.2615 | 12.073 | 1122.3 | 0.2634 |
| 16 | 0.000 | | 0.2486 | 6.957 | 1030.3 | 0.2486 | 11.445 | 1093.5 | 0.2499 |
| 17 | 0.000 | | 0.2377 | 6.394 | 980.9 | 0.2377 | 10.613 | 1050.5 | 0.2384 |
| 18 | 0.000 | | 0.2287 | 5.568 | 912.9 | 0.2287 | 9.365 | 986.6 | 0.2287 |
| 19 | 0.000 | | 0.2213 | 5.034 | 871.7 | 0.2213 | 8.488 | 937.7 | 0.2208 |
| 20 | 0.000 | | 0.2151 | 4.593 | 839.2 | 0.2151 | 7.729 | 894.8 | 0.2141 |
| 21 | 0.000 | | 0.2097 | 4.214 | 812.2 | 0.2097 | 7.041 | 855.0 | 0.2084 |
| 22 | 0.000 | | 0.2050 | 3.561 | 767.9 | 0.2050 | 5.930 | 799.5 | 0.2034 |
| 23 | 0.000 | | 0.2012 | 2.828 | 721.0 | 0.2012 | 4.690 | 742.4 | 0.1996 |
| 24 | 0.000 | | 0.1986 | 1.100 | 621.0 | 0.1986 | 1.863 | 631.8 | 0.1969 |
| 25 | 0.000 | | 0.1975 | 0.708 | 600.0 | 0.1975 | 1.189 | 605.9 | 0.1958 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| No. | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.287 | 640.6 | 0.7396 | 3.308 | 628.7 | 0.7396 | | | |
| 2 | 11.981 | 892.8 | 0.7396 | 12.060 | 853.1 | 0.7396 | | | |
| 3 | 16.280 | 950.1 | 0.7269 | 16.385 | 909.7 | 0.727 | | | |
| 4 | 18.516 | 990.1 | 0.6814 | 18.635 | 969.9 | 0.6815 | | | |
| 5 | 19.367 | 997.8 | 0.6229 | 19.494 | 1006.1 | 0.6231 | | | |
| 6 | 19.637 | 1000.6 | 0.5629 | 19.770 | 1034.3 | 0.5632 | | | |
| 7 | 19.757 | 1006.3 | 0.5089 | 19.894 | 1053.6 | 0.5092 | | | |
| 8 | 19.915 | 1015.9 | 0.4630 | 20.055 | 1068.2 | 0.4632 | | | |
| 9 | 20.479 | 1036.0 | 0.4236 | 20.624 | 1093.2 | 0.4238 | | | |
| 10 | 20.557 | 1050.3 | 0.3898 | 20.702 | 1093.2 | 0.3900 | | | |
| 11 | 20.540 | 1065.5 | 0.3609 | 20.684 | 1088.2 | 0.3611 | | | |
| 12 | 20.479 | 1080.6 | 0.3360 | 20.623 | 1088.2 | 0.3362 | | | |
| 13 | 20.379 | 1096.7 | 0.3144 | 20.520 | 1073.2 | 0.3146 | | | |
| 14 | 20.204 | 1113.8 | 0.2956 | 20.343 | 1063.3 | 0.2957 | | | |
| 15 | 19.906 | 1131.9 | 0.2791 | 20.042 | 1048.7 | 0.2792 | | | |
| 16 | 19.440 | 1148.6 | 0.2645 | 19.572 | 1029.6 | 0.2647 | | | |
| 17 | 18.711 | 1159.3 | 0.2518 | 18.838 | 1006.1 | 0.2519 | | | |
| 18 | 17.431 | 1156.0 | 0.2409 | 17.553 | 983.3 | 0.2410 | | | |
| 19 | 16.375 | 1137.5 | 0.2310 | 16.490 | 952.3 | 0.2311 | | | |
| 20 | 15.253 | 1100.8 | 0.2221 | 15.360 | 918.1 | 0.2221 | | | |
| 21 | 13.937 | 1040.4 | 0.2141 | 14.033 | 873.2 | 0.2142 | | | |
| 22 | 11.833 | 952.0 | 0.2076 | 11.915 | 819.4 | 0.2076 | | | |
| 23 | 9.338 | 851.7 | 0.2023 | 9.402 | 755.3 | 0.2024 | | | |
| 24 | 3.798 | 670.4 | 0.1990 | 3.825 | 638.6 | 0.1991 | | | |
| 25 | 2.387 | 628.0 | 0.1975 | 2.404 | 610.0 | 0.1976 | | | |

Table 4-104. LS1 Burnup and TH Feedback Parameters Assembly F18

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.479 | 653.2 | 0.7396 | 2.019 | 616.7 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 5.491 | 971.3 | 0.7396 | 7.517 | 795.5 | 0.7396 |
| 3 | 0.000 | | 0.7167 | 7.543 | 1084.6 | 0.7167 | 10.488 | 870.0 | 0.7197 |
| 4 | 0.000 | Data | 0.6575 | 8.628 | 1193.2 | 0.6575 | 12.117 | 942.6 | 0.6657 |
| 5 | 0.000 | Not | 0.5851 | 8.925 | 1224.8 | 0.5851 | 12.630 | 973.2 | 0.6006 |
| 6 | 0.000 | Required | 0.5171 | 8.877 | 1219.7 | 0.5171 | 12.645 | 982.3 | 0.5396 |
| 7 | 0.000 | | 0.4619 | 8.759 | 1207.1 | 0.4619 | 12.542 | 984.5 | 0.4888 |
| 8 | 0.000 | | 0.4179 | 8.671 | 1197.7 | 0.4179 | 12.473 | 987.3 | 0.4468 |
| 9 | 0.000 | | 0.3812 | 8.800 | 1211.4 | 0.3812 | 12.725 | 1005.5 | 0.4106 |
| 10 | 0.000 | | 0.3500 | 8.649 | 1195.4 | 0.3500 | 12.587 | 1007.4 | 0.3790 |
| 11 | 0.000 | | 0.3239 | 8.418 | 1171.3 | 0.3239 | 12.388 | 1012.2 | 0.3525 |
| 12 | 0.000 | | 0.3018 | 8.141 | 1143.1 | 0.3018 | 12.364 | 1051.1 | 0.3319 |
| 13 | 0.000 | | 0.2830 | 7.831 | 1112.4 | 0.2830 | 13.002 | 1211.2 | 0.3185 |
| 14 | 0.000 | | 0.2671 | 7.488 | 1079.4 | 0.2671 | 12.875 | 1251.1 | 0.2990 |
| 15 | 0.000 | | 0.2533 | 7.102 | 1043.5 | 0.2533 | 12.362 | 1227.5 | 0.2803 |
| 16 | 0.000 | | 0.2416 | 6.657 | 1003.6 | 0.2416 | 11.663 | 1181.6 | 0.2641 |
| 17 | 0.000 | | 0.2316 | 6.108 | 956.8 | 0.2316 | 10.758 | 1120.3 | 0.2505 |
| 18 | 0.000 | | 0.2233 | 5.306 | 892.5 | 0.2233 | 9.444 | 1037.9 | 0.2396 |
| 19 | 0.000 | | 0.2166 | 4.774 | 852.4 | 0.2166 | 8.512 | 978.0 | 0.2306 |
| 20 | 0.000 | | 0.2109 | 4.333 | 820.6 | 0.2109 | 7.713 | 927.5 | 0.2230 |
| 21 | 0.000 | | 0.2058 | 3.948 | 793.8 | 0.2058 | 6.987 | 882.1 | 0.2165 |
| 22 | 0.000 | | 0.2016 | 3.310 | 751.5 | 0.2016 | 5.840 | 818.6 | 0.2111 |
| 23 | 0.000 | | 0.1981 | 2.606 | 707.4 | 0.1981 | 4.572 | 753.7 | 0.2067 |
| 24 | 0.000 | | 0.1955 | 1.008 | 616.0 | 0.1955 | 1.798 | 634.3 | 0.2041 |
| 25 | 0.000 | | 0.1956 | 0.653 | 597.1 | 0.1956 | 1.143 | 606.7 | 0.2032 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| No. | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.221 | 636.9 | 0.7396 | 3.243 | 632.1 | 0.7396 | | | |
| 2 | 11.930 | 884.1 | 0.7396 | 12.010 | 857.5 | 0.7396 | | | |
| 3 | 16.324 | 946.3 | 0.7227 | 16.429 | 909.8 | 0.7227 | | | |
| 4 | 18.466 | 990.7 | 0.6725 | 18.586 | 974.3 | 0.6727 | | | |
| 5 | 19.101 | 1001.5 | 0.6122 | 19.228 | 1006.2 | 0.6125 | | | |
| 6 | 19.162 | 1005.7 | 0.5550 | 19.293 | 1024.8 | 0.5553 | | | |
| 7 | 19.119 | 1011.1 | 0.5060 | 19.252 | 1034.3 | 0.5063 | | | |
| 8 | 19.138 | 1019.1 | 0.4645 | 19.273 | 1043.9 | 0.4647 | | | |
| 9 | 19.587 | 1037.2 | 0.4280 | 19.726 | 1063.3 | 0.4282 | | | |
| 10 | 19.569 | 1048.5 | 0.3961 | 19.710 | 1073.2 | 0.3963 | | | |
| 11 | 19.487 | 1059.5 | 0.3688 | 19.628 | 1073.2 | 0.3689 | | | |
| 12 | 19.551 | 1068.0 | 0.3462 | 19.691 | 1068.2 | 0.3463 | | | |
| 13 | 20.200 | 1069.0 | 0.3288 | 20.339 | 1063.3 | 0.3289 | | | |
| 14 | 20.186 | 1079.9 | 0.3090 | 20.323 | 1053.6 | 0.3091 | | | |
| 15 | 19.830 | 1095.3 | 0.2907 | 19.965 | 1043.9 | 0.2908 | | | |
| 16 | 19.281 | 1110.2 | 0.2747 | 19.412 | 1024.8 | 0.2747 | | | |
| 17 | 18.466 | 1119.2 | 0.2609 | 18.592 | 1001.5 | 0.2610 | | | |
| 18 | 17.102 | 1114.2 | 0.2494 | 17.222 | 974.3 | 0.2495 | | | |
| 19 | 15.968 | 1094.1 | 0.2392 | 16.081 | 943.6 | 0.2392 | | | |
| 20 | 14.789 | 1057.4 | 0.2301 | 14.894 | 909.7 | 0.2301 | | | |
| 21 | 13.437 | 999.7 | 0.2219 | 13.531 | 865.3 | 0.2220 | | | |
| 22 | 11.309 | 915.9 | 0.2152 | 11.388 | 808.4 | 0.2153 | | | |
| 23 | 8.826 | 822.5 | 0.2099 | 8.888 | 748.5 | 0.2099 | | | |
| 24 | 3.541 | 659.1 | 0.2067 | 3.567 | 635.7 | 0.2067 | | | |
| 25 | 2.208 | 620.6 | 0.2053 | 2.224 | 607.2 | 0.2053 | | | |

Table 4-105. LS1 Burnup and TH Feedback Parameters Assembly G1

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.136 | 630.5 | 0.7396 | 1.866 | 637.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.969 | 836.9 | 0.7396 | 6.589 | 877.8 | 0.7396 |
| 3 | 0.000 | | 0.7355 | 5.562 | 911.8 | 0.7355 | 9.447 | 998.6 | 0.7317 |
| 4 | 0.000 | Data | 0.6995 | 6.654 | 1002.4 | 0.6995 | 11.393 | 1134.0 | 0.6898 |
| 5 | 0.000 | Not | 0.6487 | 7.270 | 1057.8 | 0.6487 | 12.361 | 1195.3 | 0.6322 |
| 6 | 0.000 | Required | 0.5908 | 7.589 | 1087.8 | 0.5908 | 12.744 | 1206.8 | 0.5701 |
| 7 | 0.000 | | 0.5339 | 7.759 | 1104.1 | 0.5339 | 12.878 | 1200.3 | 0.5124 |
| 8 | 0.000 | | 0.4836 | 7.904 | 1118.3 | 0.4836 | 12.986 | 1193.7 | 0.4631 |
| 9 | 0.000 | | 0.4400 | 8.322 | 1160.1 | 0.4400 | 13.523 | 1215.2 | 0.4213 |
| 10 | 0.000 | | 0.4025 | 8.304 | 1158.3 | 0.4025 | 13.450 | 1205.2 | 0.3852 |
| 11 | 0.000 | | 0.3708 | 8.161 | 1143.8 | 0.3708 | 13.236 | 1192.5 | 0.3548 |
| 12 | 0.000 | | 0.3439 | 7.946 | 1122.4 | 0.3439 | 12.950 | 1179.9 | 0.3289 |
| 13 | 0.000 | | 0.3213 | 7.684 | 1096.9 | 0.3213 | 12.633 | 1170.2 | 0.3069 |
| 14 | 0.000 | | 0.3020 | 7.378 | 1067.9 | 0.3020 | 12.303 | 1166.0 | 0.2879 |
| 15 | 0.000 | | 0.2855 | 7.022 | 1035.1 | 0.2855 | 11.946 | 1165.8 | 0.2712 |
| 16 | 0.000 | | 0.2714 | 6.605 | 998.2 | 0.2714 | 11.482 | 1157.7 | 0.2567 |
| 17 | 0.000 | | 0.2595 | 6.102 | 955.4 | 0.2595 | 10.804 | 1127.8 | 0.2441 |
| 18 | 0.000 | | 0.2495 | 5.392 | 898.5 | 0.2495 | 9.693 | 1062.3 | 0.2336 |
| 19 | 0.000 | | 0.2413 | 4.898 | 861.0 | 0.2413 | 8.838 | 1006.8 | 0.2250 |
| 20 | 0.000 | | 0.2344 | 4.459 | 829.0 | 0.2344 | 8.027 | 952.9 | 0.2178 |
| 21 | 0.000 | | 0.2286 | 3.983 | 795.8 | 0.2286 | 7.135 | 896.2 | 0.2119 |
| 22 | 0.000 | | 0.2237 | 3.336 | 752.8 | 0.2237 | 5.944 | 827.5 | 0.2069 |
| 23 | 0.000 | | 0.2198 | 2.635 | 708.9 | 0.2198 | 4.667 | 760.7 | 0.2031 |
| 24 | 0.000 | | 0.2170 | 1.083 | 620.0 | 0.2170 | 1.945 | 641.0 | 0.2002 |
| 25 | 0.000 | | 0.2159 | 0.710 | 600.1 | 0.2159 | 1.267 | 612.7 | 0.1993 |
| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.392 | 658.7 | 0.7396 | 3.405 | 601.9 | 0.7396 | | | |
| 2 | 12.043 | 979.9 | 0.7396 | 12.091 | 725.7 | 0.7396 | | | |
| 3 | 16.529 | 1056.8 | 0.7240 | 16.592 | 751.5 | 0.7241 | | | |
| 4 | 18.865 | 1094.5 | 0.6765 | 18.938 | 786.3 | 0.6767 | | | |
| 5 | 19.756 | 1087.0 | 0.6180 | 19.836 | 811.6 | 0.6184 | | | |
| 6 | 20.040 | 1077.3 | 0.5586 | 20.126 | 833.9 | 0.5592 | | | |
| 7 | 20.152 | 1075.2 | 0.5048 | 20.243 | 853.0 | 0.5055 | | | |
| 8 | 20.308 | 1079.9 | 0.4586 | 20.403 | 868.6 | 0.4595 | | | |
| 9 | 21.078 | 1102.7 | 0.4191 | 21.178 | 888.6 | 0.4200 | | | |
| 10 | 21.133 | 1115.5 | 0.3848 | 21.236 | 900.8 | 0.3856 | | | |
| 11 | 21.067 | 1130.4 | 0.3553 | 21.171 | 904.9 | 0.3561 | | | |
| 12 | 20.939 | 1146.6 | 0.3300 | 21.043 | 904.9 | 0.3308 | | | |
| 13 | 20.785 | 1163.6 | 0.3080 | 20.889 | 904.9 | 0.3087 | | | |
| 14 | 20.611 | 1180.1 | 0.2887 | 20.715 | 904.9 | 0.2894 | | | |
| 15 | 20.395 | 1195.2 | 0.2716 | 20.498 | 900.8 | 0.2723 | | | |
| 16 | 20.052 | 1208.3 | 0.2565 | 20.152 | 888.6 | 0.2571 | | | |
| 17 | 19.449 | 1216.5 | 0.2432 | 19.548 | 884.6 | 0.2437 | | | |
| 18 | 18.293 | 1211.5 | 0.2314 | 18.398 | 909.0 | 0.2320 | | | |
| 19 | 17.248 | 1191.0 | 0.2212 | 17.387 | 1062.2 | 0.2221 | | | |
| 20 | 16.048 | 1149.9 | 0.2123 | 16.191 | 1082.0 | 0.2132 | | | |
| 21 | 14.430 | 1077.2 | 0.2047 | 14.560 | 1019.1 | 0.2055 | | | |
| 22 | 12.167 | 978.7 | 0.1984 | 12.279 | 938.5 | 0.1991 | | | |
| 23 | 9.538 | 868.0 | 0.1935 | 9.624 | 833.9 | 0.1942 | | | |
| 24 | 4.016 | 678.3 | 0.1901 | 4.052 | 665.2 | 0.1908 | | | |
| 25 | 2.585 | 634.6 | 0.1889 | 2.606 | 621.2 | 0.1895 | | | |

Table 4-106. LS1 Burnup and TH Feedback Parameters Assembly G2

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|-------------------------|------------------------|-----------------------------------|--------------------------------|-------------------------|------------------------------------|--------------------------------|-------------------------|------------------------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) 0.00 Cy 7 | Temp. (K) 0.00 Cy 7 | (g/cm ³) 0.00 Cy 7 | (GWd/MTU) 193.2 Cy 7 | Temp. (K) 193.2 Cy 7 | (g/cm ³) 193.2 Cy 7 | (GWd/MTU) 306.8 Cy 7 | Temp. (K) 306.8 Cy 7 | (g/cm ³) 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.230 | 636.6 | 0.7396 | 2.006 | 642.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.283 | 863.0 | 0.7396 | 7.108 | 908.2 | 0.7396 |
| 3 | 0.000 | | 0.7329 | 6.028 | 949.3 | 0.7329 | 10.263 | 1051.9 | 0.7287 |
| 4 | 0.000 | Data | 0.6926 | 7.156 | 1047.3 | 0.6926 | 12.244 | 1194.8 | 0.6822 |
| 5 | 0.000 | Not | 0.6371 | 7.657 | 1094.3 | 0.6371 | 12.967 | 1235.1 | 0.6203 |
| 6 | 0.000 | Required | 0.5768 | 7.800 | 1108.1 | 0.5768 | 13.027 | 1219.9 | 0.5566 |
| 7 | 0.000 | | 0.5203 | 7.817 | 1109.8 | 0.5203 | 12.898 | 1193.5 | 0.5000 |
| 8 | 0.000 | | 0.4717 | 7.863 | 1114.3 | 0.4717 | 12.837 | 1174.6 | 0.4529 |
| 9 | 0.000 | | 0.4299 | 8.236 | 1151.4 | 0.4299 | 13.287 | 1188.2 | 0.4131 |
| 10 | 0.000 | | 0.3941 | 8.200 | 1147.7 | 0.3941 | 13.159 | 1172.0 | 0.3789 |
| 11 | 0.000 | | 0.3639 | 8.056 | 1133.3 | 0.3639 | 12.909 | 1153.5 | 0.3502 |
| 12 | 0.000 | | 0.3384 | 7.847 | 1112.7 | 0.3384 | 12.600 | 1136.4 | 0.3257 |
| 13 | 0.000 | | 0.3166 | 7.592 | 1088.1 | 0.3166 | 12.266 | 1123.1 | 0.3048 |
| 14 | 0.000 | | 0.2981 | 7.297 | 1060.3 | 0.2981 | 11.914 | 1113.5 | 0.2867 |
| 15 | 0.000 | | 0.2822 | 6.957 | 1029.3 | 0.2822 | 11.523 | 1105.1 | 0.2709 |
| 16 | 0.000 | | 0.2685 | 6.557 | 994.0 | 0.2685 | 11.032 | 1090.2 | 0.2572 |
| 17 | 0.000 | | 0.2569 | 6.061 | 952.0 | 0.2569 | 10.350 | 1060.4 | 0.2453 |
| 18 | 0.000 | | 0.2472 | 5.358 | 895.8 | 0.2472 | 9.288 | 1005.3 | 0.2351 |
| 19 | 0.000 | | 0.2391 | 4.870 | 858.9 | 0.2391 | 8.498 | 961.3 | 0.2268 |
| 20 | 0.000 | | 0.2323 | 4.445 | 828.0 | 0.2323 | 7.775 | 920.0 | 0.2197 |
| 21 | 0.000 | | 0.2264 | 3.976 | 795.3 | 0.2264 | 6.955 | 873.7 | 0.2137 |
| 22 | 0.000 | | 0.2216 | 3.332 | 752.5 | 0.2216 | 5.817 | 812.7 | 0.2087 |
| 23 | 0.000 | | 0.2177 | 2.628 | 708.4 | 0.2177 | 4.569 | 750.6 | 0.2048 |
| 24 | 0.000 | | 0.2151 | 1.083 | 620.0 | 0.2151 | 1.909 | 637.6 | 0.2021 |
| 25 | 0.000 | | 0.2141 | 0.712 | 600.2 | 0.2141 | 1.246 | 610.6 | 0.2012 |

| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|-------------|--------------------------|------------------------|-----------------------------------|--------------------------------|------------------------|-----------------------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) 0.00 Cy 8 | Temp. (K) 0.00 Cy 8 | (g/cm ³) 0.00 Cy 8 | (GWd/MTU) 3.67 Cy 8 | Temp. (K) 3.67 Cy 8 | (g/cm ³) 3.67 Cy 8 |
| 1 | 3.410 | 650.4 | 0.7396 | 3.433 | 635.4 | 0.7396 |
| 2 | 12.248 | 949.8 | 0.7396 | 12.336 | 892.9 | 0.7396 |
| 3 | 17.013 | 1025.9 | 0.7246 | 17.128 | 951.5 | 0.7246 |
| 4 | 19.415 | 1065.3 | 0.6760 | 19.543 | 1009.8 | 0.6761 |
| 5 | 20.099 | 1061.6 | 0.6155 | 20.233 | 1038.1 | 0.6156 |
| 6 | 20.082 | 1054.3 | 0.5553 | 20.218 | 1047.7 | 0.5555 |
| 7 | 19.932 | 1052.3 | 0.5024 | 20.069 | 1052.5 | 0.5026 |
| 8 | 19.896 | 1054.7 | 0.4577 | 20.035 | 1062.2 | 0.4579 |
| 9 | 20.540 | 1073.2 | 0.4193 | 20.683 | 1082.0 | 0.4195 |
| 10 | 20.496 | 1081.3 | 0.3862 | 20.641 | 1092.0 | 0.3863 |
| 11 | 20.350 | 1091.5 | 0.3578 | 20.494 | 1087.0 | 0.3580 |
| 12 | 20.158 | 1103.0 | 0.3334 | 20.301 | 1082.0 | 0.3336 |
| 13 | 19.947 | 1115.3 | 0.3123 | 20.088 | 1072.1 | 0.3124 |
| 14 | 19.717 | 1127.6 | 0.2937 | 19.856 | 1062.2 | 0.2938 |
| 15 | 19.437 | 1138.9 | 0.2773 | 19.571 | 1038.1 | 0.2774 |
| 16 | 19.033 | 1147.9 | 0.2628 | 19.161 | 1009.8 | 0.2628 |
| 17 | 18.383 | 1151.2 | 0.2500 | 18.503 | 973.5 | 0.2500 |
| 18 | 17.219 | 1140.7 | 0.2389 | 17.331 | 938.5 | 0.2389 |
| 19 | 16.203 | 1117.7 | 0.2290 | 16.307 | 904.9 | 0.2291 |
| 20 | 15.084 | 1078.6 | 0.2204 | 15.179 | 868.6 | 0.2204 |
| 21 | 13.569 | 1013.5 | 0.2129 | 13.653 | 826.4 | 0.2129 |
| 22 | 11.398 | 924.4 | 0.2067 | 11.470 | 782.7 | 0.2067 |
| 23 | 8.879 | 826.1 | 0.2019 | 8.935 | 728.2 | 0.2020 |
| 24 | 3.719 | 662.9 | 0.1986 | 3.742 | 626.9 | 0.1987 |
| 25 | 2.386 | 624.6 | 0.1974 | 2.400 | 601.5 | 0.1975 |

Table 4-107. LS1 Burnup and TH Feedback Parameters Assembly G3

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.219 | 635.9 | 0.7396 | 1.954 | 638.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.242 | 859.5 | 0.7396 | 6.876 | 879.9 | 0.7396 |
| 3 | 0.000 | | 0.7325 | 5.902 | 939.0 | 0.7325 | 9.792 | 999.4 | 0.7302 |
| 4 | 0.000 | Data | 0.6929 | 6.992 | 1032.4 | 0.6929 | 11.700 | 1128.8 | 0.6867 |
| 5 | 0.000 | Not | 0.6384 | 7.561 | 1085.1 | 0.6384 | 12.589 | 1184.1 | 0.6274 |
| 6 | 0.000 | Required | 0.5780 | 7.824 | 1110.5 | 0.5780 | 12.899 | 1192.5 | 0.5642 |
| 7 | 0.000 | | 0.5204 | 7.953 | 1123.1 | 0.5204 | 12.987 | 1185.2 | 0.5062 |
| 8 | 0.000 | | 0.4706 | 8.074 | 1135.1 | 0.4706 | 13.071 | 1178.6 | 0.4571 |
| 9 | 0.000 | | 0.4277 | 8.482 | 1176.5 | 0.4277 | 13.594 | 1199.1 | 0.4156 |
| 10 | 0.000 | | 0.3909 | 8.459 | 1174.2 | 0.3909 | 13.517 | 1189.4 | 0.3800 |
| 11 | 0.000 | | 0.3599 | 8.315 | 1159.4 | 0.3599 | 13.302 | 1176.9 | 0.3500 |
| 12 | 0.000 | | 0.3339 | 8.106 | 1138.3 | 0.3339 | 13.021 | 1164.3 | 0.3247 |
| 13 | 0.000 | | 0.3119 | 7.869 | 1114.9 | 0.3119 | 12.721 | 1153.3 | 0.3031 |
| 14 | 0.000 | | 0.2931 | 7.627 | 1091.4 | 0.2931 | 12.424 | 1143.9 | 0.2846 |
| 15 | 0.000 | | 0.2768 | 7.357 | 1065.9 | 0.2768 | 12.090 | 1133.0 | 0.2684 |
| 16 | 0.000 | | 0.2627 | 7.010 | 1034.1 | 0.2627 | 11.637 | 1115.2 | 0.2543 |
| 17 | 0.000 | | 0.2505 | 6.535 | 992.1 | 0.2505 | 10.966 | 1083.1 | 0.2420 |
| 18 | 0.000 | | 0.2404 | 5.808 | 931.4 | 0.2404 | 9.876 | 1026.1 | 0.2316 |
| 19 | 0.000 | | 0.2320 | 5.280 | 889.8 | 0.2320 | 9.041 | 980.4 | 0.2229 |
| 20 | 0.000 | | 0.2249 | 4.785 | 852.6 | 0.2249 | 8.241 | 937.2 | 0.2155 |
| 21 | 0.000 | | 0.2189 | 4.240 | 813.6 | 0.2189 | 7.361 | 892.1 | 0.2092 |
| 22 | 0.000 | | 0.2139 | 3.528 | 765.3 | 0.2139 | 6.180 | 832.8 | 0.2039 |
| 23 | 0.000 | | 0.2100 | 2.776 | 717.5 | 0.2100 | 4.891 | 770.0 | 0.1998 |
| 24 | 0.000 | | 0.2074 | 1.138 | 623.0 | 0.2074 | 2.052 | 645.9 | 0.1968 |
| 25 | 0.000 | | 0.2063 | 0.748 | 602.1 | 0.2063 | 1.340 | 615.9 | 0.1958 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.387 | 652.3 | 0.7396 | 3.400 | 601.9 | 0.7396 | | | |
| 2 | 11.998 | 948.1 | 0.7396 | 12.046 | 725.7 | 0.7396 | | | |
| 3 | 16.449 | 1017.4 | 0.7262 | 16.512 | 751.5 | 0.7262 | | | |
| 4 | 18.761 | 1054.9 | 0.6801 | 18.834 | 786.3 | 0.6803 | | | |
| 5 | 19.626 | 1052.6 | 0.6217 | 19.705 | 807.9 | 0.6221 | | | |
| 6 | 19.878 | 1047.1 | 0.5616 | 19.962 | 826.4 | 0.5622 | | | |
| 7 | 19.970 | 1047.5 | 0.5072 | 20.058 | 841.5 | 0.5079 | | | |
| 8 | 20.117 | 1053.4 | 0.4608 | 20.208 | 853.0 | 0.4616 | | | |
| 9 | 20.875 | 1075.9 | 0.4210 | 20.972 | 876.6 | 0.4218 | | | |
| 10 | 20.931 | 1088.8 | 0.3867 | 21.029 | 880.6 | 0.3874 | | | |
| 11 | 20.867 | 1103.7 | 0.3573 | 20.969 | 896.7 | 0.3581 | | | |
| 12 | 20.744 | 1119.5 | 0.3322 | 20.858 | 947.1 | 0.3330 | | | |
| 13 | 20.603 | 1135.6 | 0.3104 | 20.761 | 1159.7 | 0.3114 | | | |
| 14 | 20.457 | 1151.2 | 0.2913 | 20.626 | 1220.2 | 0.2922 | | | |
| 15 | 20.261 | 1165.6 | 0.2744 | 20.427 | 1203.4 | 0.2752 | | | |
| 16 | 19.934 | 1178.9 | 0.2595 | 20.092 | 1159.7 | 0.2601 | | | |
| 17 | 19.353 | 1188.5 | 0.2462 | 19.502 | 1112.4 | 0.2467 | | | |
| 18 | 18.249 | 1187.0 | 0.2346 | 18.388 | 1062.2 | 0.2351 | | | |
| 19 | 17.273 | 1172.0 | 0.2243 | 17.403 | 1019.1 | 0.2247 | | | |
| 20 | 16.155 | 1138.9 | 0.2152 | 16.274 | 969.0 | 0.2156 | | | |
| 21 | 14.621 | 1073.9 | 0.2072 | 14.726 | 909.0 | 0.2076 | | | |
| 22 | 12.433 | 981.3 | 0.2005 | 12.522 | 845.3 | 0.2009 | | | |
| 23 | 9.821 | 872.6 | 0.1953 | 9.890 | 772.2 | 0.1957 | | | |
| 24 | 4.154 | 680.2 | 0.1919 | 4.182 | 641.4 | 0.1922 | | | |
| 25 | 2.676 | 635.6 | 0.1906 | 2.694 | 612.7 | 0.1908 | | | |

Table 4-108. LS1 Burnup and TH Feedback Parameters Assembly G4

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.049 | 624.9 | 0.7396 | 1.748 | 634.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.621 | 808.8 | 0.7396 | 6.077 | 854.2 | 0.7396 |
| 3 | 0.000 | | 0.7385 | 5.017 | 869.8 | 0.7385 | 8.597 | 954.5 | 0.7344 |
| 4 | 0.000 | Data | 0.7082 | 5.970 | 944.6 | 0.7082 | 10.339 | 1073.1 | 0.6977 |
| 5 | 0.000 | Not | 0.6650 | 6.538 | 992.4 | 0.6650 | 11.289 | 1136.1 | 0.6474 |
| 6 | 0.000 | Required | 0.6144 | 6.885 | 1022.8 | 0.6144 | 11.765 | 1158.2 | 0.5915 |
| 7 | 0.000 | | 0.5621 | 7.125 | 1044.5 | 0.5621 | 12.036 | 1163.6 | 0.5370 |
| 8 | 0.000 | | 0.5129 | 7.342 | 1064.5 | 0.5129 | 12.284 | 1169.0 | 0.4880 |
| 9 | 0.000 | | 0.4684 | 7.810 | 1109.1 | 0.4684 | 12.945 | 1203.2 | 0.4449 |
| 10 | 0.000 | | 0.4292 | 7.850 | 1113.0 | 0.4292 | 12.986 | 1203.4 | 0.4071 |
| 11 | 0.000 | | 0.3958 | 7.757 | 1103.9 | 0.3958 | 12.869 | 1199.1 | 0.3748 |
| 12 | 0.000 | | 0.3674 | 7.587 | 1087.6 | 0.3674 | 12.666 | 1193.2 | 0.3474 |
| 13 | 0.000 | | 0.3432 | 7.384 | 1068.4 | 0.3432 | 12.412 | 1184.1 | 0.3238 |
| 14 | 0.000 | | 0.3225 | 7.173 | 1048.9 | 0.3225 | 12.114 | 1168.8 | 0.3036 |
| 15 | 0.000 | | 0.3046 | 6.932 | 1027.0 | 0.3046 | 11.729 | 1143.9 | 0.2863 |
| 16 | 0.000 | | 0.2891 | 6.612 | 998.8 | 0.2891 | 11.199 | 1108.6 | 0.2713 |
| 17 | 0.000 | | 0.2758 | 6.161 | 960.3 | 0.2758 | 10.459 | 1061.8 | 0.2583 |
| 18 | 0.000 | | 0.2647 | 5.461 | 903.8 | 0.2647 | 9.331 | 996.4 | 0.2473 |
| 19 | 0.000 | | 0.2555 | 4.956 | 865.3 | 0.2555 | 8.490 | 948.1 | 0.2383 |
| 20 | 0.000 | | 0.2477 | 4.489 | 831.2 | 0.2477 | 7.716 | 906.1 | 0.2306 |
| 21 | 0.000 | | 0.2410 | 3.987 | 796.1 | 0.2410 | 6.896 | 864.8 | 0.2240 |
| 22 | 0.000 | | 0.2354 | 3.328 | 752.3 | 0.2354 | 5.803 | 811.5 | 0.2183 |
| 23 | 0.000 | | 0.2309 | 2.627 | 708.4 | 0.2309 | 4.610 | 755.3 | 0.2138 |
| 24 | 0.000 | | 0.2279 | 1.075 | 619.6 | 0.2279 | 1.934 | 640.7 | 0.2105 |
| 25 | 0.000 | | 0.2266 | 0.701 | 599.6 | 0.2266 | 1.260 | 612.9 | 0.2093 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.177 | 652.1 | 0.7396 | 3.199 | 632.0 | 0.7396 | | | |
| 2 | 11.147 | 943.3 | 0.7396 | 11.229 | 865.8 | 0.7396 | | | |
| 3 | 15.310 | 1022.5 | 0.7288 | 15.418 | 921.5 | 0.7288 | | | |
| 4 | 17.511 | 1065.4 | 0.6868 | 17.632 | 977.9 | 0.6869 | | | |
| 5 | 18.373 | 1057.0 | 0.6339 | 18.500 | 1005.2 | 0.634 | | | |
| 6 | 18.687 | 1041.8 | 0.5789 | 18.817 | 1019.1 | 0.579 | | | |
| 7 | 18.866 | 1033.2 | 0.5273 | 18.997 | 1023.8 | 0.5274 | | | |
| 8 | 19.106 | 1032.5 | 0.4814 | 19.239 | 1033.3 | 0.4815 | | | |
| 9 | 19.958 | 1050.3 | 0.4411 | 20.095 | 1052.5 | 0.4412 | | | |
| 10 | 20.107 | 1060.5 | 0.4055 | 20.246 | 1062.2 | 0.4056 | | | |
| 11 | 20.135 | 1074.4 | 0.3748 | 20.277 | 1077.0 | 0.3749 | | | |
| 12 | 20.101 | 1090.9 | 0.3483 | 20.247 | 1097.1 | 0.3483 | | | |
| 13 | 20.033 | 1109.3 | 0.3251 | 20.183 | 1117.5 | 0.3252 | | | |
| 14 | 19.929 | 1128.8 | 0.3050 | 20.080 | 1122.7 | 0.3050 | | | |
| 15 | 19.739 | 1148.8 | 0.2872 | 19.889 | 1117.5 | 0.2872 | | | |
| 16 | 19.392 | 1167.9 | 0.2714 | 19.536 | 1087.0 | 0.2714 | | | |
| 17 | 18.783 | 1181.8 | 0.2574 | 18.921 | 1057.3 | 0.2574 | | | |
| 18 | 17.653 | 1181.6 | 0.2450 | 17.783 | 1019.1 | 0.2450 | | | |
| 19 | 16.682 | 1167.8 | 0.2341 | 16.803 | 977.9 | 0.2341 | | | |
| 20 | 15.597 | 1135.5 | 0.2245 | 15.710 | 942.8 | 0.2245 | | | |
| 21 | 14.141 | 1072.4 | 0.2160 | 14.241 | 888.6 | 0.2160 | | | |
| 22 | 12.045 | 980.4 | 0.2090 | 12.131 | 833.9 | 0.2090 | | | |
| 23 | 9.542 | 872.7 | 0.2036 | 9.608 | 761.8 | 0.2036 | | | |
| 24 | 4.043 | 680.6 | 0.1998 | 4.071 | 641.4 | 0.1998 | | | |
| 25 | 2.606 | 636.2 | 0.1983 | 2.623 | 609.9 | 0.1984 | | | |

Table 4-109. LS1 Burnup and TH Feedback Parameters Assembly G5

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.128 | 630.0 | 0.7396 | 1.860 | 637.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.944 | 834.8 | 0.7396 | 6.566 | 878.1 | 0.7396 |
| 3 | 0.000 | | 0.7358 | 5.530 | 909.2 | 0.7358 | 9.411 | 998.0 | 0.7319 |
| 4 | 0.000 | Data | 0.7004 | 6.623 | 999.7 | 0.7004 | 11.357 | 1133.2 | 0.6903 |
| 5 | 0.000 | Not | 0.6502 | 7.245 | 1055.5 | 0.6502 | 12.332 | 1194.6 | 0.6331 |
| 6 | 0.000 | Required | 0.5924 | 7.568 | 1085.8 | 0.5924 | 12.720 | 1206.3 | 0.5710 |
| 7 | 0.000 | | 0.5354 | 7.740 | 1102.3 | 0.5354 | 12.856 | 1199.8 | 0.5132 |
| 8 | 0.000 | | 0.4848 | 7.887 | 1116.6 | 0.4848 | 12.966 | 1193.2 | 0.4638 |
| 9 | 0.000 | | 0.4409 | 8.309 | 1158.8 | 0.4409 | 13.507 | 1214.6 | 0.4218 |
| 10 | 0.000 | | 0.4032 | 8.295 | 1157.4 | 0.4032 | 13.436 | 1204.3 | 0.3857 |
| 11 | 0.000 | | 0.3714 | 8.156 | 1143.3 | 0.3714 | 13.222 | 1190.9 | 0.3552 |
| 12 | 0.000 | | 0.3445 | 7.942 | 1122.0 | 0.3445 | 12.936 | 1178.1 | 0.3293 |
| 13 | 0.000 | | 0.3218 | 7.687 | 1097.2 | 0.3218 | 12.627 | 1168.6 | 0.3072 |
| 14 | 0.000 | | 0.3024 | 7.404 | 1070.3 | 0.3024 | 12.322 | 1164.8 | 0.2882 |
| 15 | 0.000 | | 0.2858 | 7.081 | 1040.5 | 0.2858 | 12.005 | 1165.8 | 0.2714 |
| 16 | 0.000 | | 0.2715 | 6.696 | 1006.1 | 0.2715 | 11.583 | 1159.4 | 0.2568 |
| 17 | 0.000 | | 0.2593 | 6.212 | 964.6 | 0.2593 | 10.939 | 1132.0 | 0.2441 |
| 18 | 0.000 | | 0.2491 | 5.506 | 907.4 | 0.2491 | 9.848 | 1068.8 | 0.2334 |
| 19 | 0.000 | | 0.2407 | 5.008 | 869.2 | 0.2407 | 9.004 | 1015.2 | 0.2246 |
| 20 | 0.000 | | 0.2337 | 4.556 | 836.0 | 0.2337 | 8.197 | 963.2 | 0.2173 |
| 21 | 0.000 | | 0.2276 | 4.063 | 801.3 | 0.2276 | 7.302 | 907.7 | 0.2110 |
| 22 | 0.000 | | 0.2226 | 3.396 | 756.7 | 0.2226 | 6.098 | 838.9 | 0.2059 |
| 23 | 0.000 | | 0.2187 | 2.678 | 711.5 | 0.2187 | 4.798 | 770.5 | 0.2020 |
| 24 | 0.000 | | 0.2159 | 1.100 | 620.9 | 0.2159 | 2.005 | 645.1 | 0.1989 |
| 25 | 0.000 | | 0.2149 | 0.722 | 600.7 | 0.2149 | 1.308 | 615.4 | 0.1979 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.399 | 659.6 | 0.7396 | 3.422 | 635.4 | 0.7396 | | | |
| 2 | 12.062 | 984.0 | 0.7396 | 12.149 | 888.3 | 0.7396 | | | |
| 3 | 16.546 | 1061.9 | 0.7239 | 16.660 | 947.1 | 0.7239 | | | |
| 4 | 18.883 | 1099.8 | 0.6763 | 19.009 | 1000.6 | 0.6765 | | | |
| 5 | 19.774 | 1091.6 | 0.6178 | 19.905 | 1023.8 | 0.618 | | | |
| 6 | 20.056 | 1081.2 | 0.5585 | 20.189 | 1033.3 | 0.5587 | | | |
| 7 | 20.165 | 1078.6 | 0.5046 | 20.298 | 1033.3 | 0.5048 | | | |
| 8 | 20.318 | 1082.8 | 0.4584 | 20.452 | 1038.1 | 0.4586 | | | |
| 9 | 21.087 | 1105.2 | 0.4188 | 21.226 | 1062.2 | 0.4190 | | | |
| 10 | 21.140 | 1117.6 | 0.3844 | 21.280 | 1067.1 | 0.3845 | | | |
| 11 | 21.072 | 1132.4 | 0.3549 | 21.213 | 1072.1 | 0.3551 | | | |
| 12 | 20.941 | 1148.3 | 0.3296 | 21.085 | 1087.0 | 0.3298 | | | |
| 13 | 20.790 | 1164.8 | 0.3076 | 20.937 | 1102.2 | 0.3078 | | | |
| 14 | 20.634 | 1180.5 | 0.2884 | 20.782 | 1107.3 | 0.2885 | | | |
| 15 | 20.447 | 1194.4 | 0.2713 | 20.592 | 1092.0 | 0.2714 | | | |
| 16 | 20.138 | 1206.6 | 0.2561 | 20.278 | 1067.1 | 0.2562 | | | |
| 17 | 19.569 | 1214.8 | 0.2427 | 19.701 | 1028.6 | 0.2428 | | | |
| 18 | 18.444 | 1211.1 | 0.2308 | 18.568 | 991.5 | 0.2310 | | | |
| 19 | 17.426 | 1192.3 | 0.2206 | 17.541 | 951.5 | 0.2207 | | | |
| 20 | 16.251 | 1153.4 | 0.2116 | 16.357 | 913.2 | 0.2117 | | | |
| 21 | 14.646 | 1082.0 | 0.2039 | 14.740 | 864.7 | 0.2039 | | | |
| 22 | 12.386 | 984.4 | 0.1975 | 12.466 | 811.6 | 0.1975 | | | |
| 23 | 9.733 | 873.0 | 0.1925 | 9.796 | 751.5 | 0.1926 | | | |
| 24 | 4.106 | 680.1 | 0.1891 | 4.132 | 635.6 | 0.1892 | | | |
| 25 | 2.647 | 635.8 | 0.1878 | 2.663 | 607.1 | 0.1880 | | | |

Table 4-110. LS1 Burnup and TH Feedback Parameters Assembly G6

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.181 | 633.4 | 0.7396 | 1.947 | 641.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.089 | 846.8 | 0.7396 | 6.845 | 897.9 | 0.7396 |
| 3 | 0.000 | | 0.7349 | 5.732 | 925.3 | 0.7349 | 9.841 | 1032.4 | 0.7302 |
| 4 | 0.000 | Data | 0.6978 | 6.830 | 1017.9 | 0.6978 | 11.794 | 1172.8 | 0.6860 |
| 5 | 0.000 | Not | 0.6459 | 7.378 | 1067.9 | 0.6459 | 12.608 | 1220.4 | 0.6266 |
| 6 | 0.000 | Required | 0.5876 | 7.593 | 1088.2 | 0.5876 | 12.792 | 1214.8 | 0.5643 |
| 7 | 0.000 | | 0.5315 | 7.668 | 1095.4 | 0.5315 | 12.765 | 1196.4 | 0.5076 |
| 8 | 0.000 | | 0.4823 | 7.743 | 1102.6 | 0.4823 | 12.767 | 1183.4 | 0.4598 |
| 9 | 0.000 | | 0.4397 | 8.107 | 1138.4 | 0.4397 | 13.239 | 1202.7 | 0.4191 |
| 10 | 0.000 | | 0.4032 | 8.049 | 1132.6 | 0.4032 | 13.114 | 1190.7 | 0.3841 |
| 11 | 0.000 | | 0.3724 | 7.877 | 1115.6 | 0.3724 | 12.858 | 1175.8 | 0.3547 |
| 12 | 0.000 | | 0.3464 | 7.641 | 1092.8 | 0.3464 | 12.542 | 1161.8 | 0.3296 |
| 13 | 0.000 | | 0.3245 | 7.364 | 1066.6 | 0.3245 | 12.202 | 1150.9 | 0.3083 |
| 14 | 0.000 | | 0.3059 | 7.052 | 1037.9 | 0.3059 | 11.859 | 1145.6 | 0.2898 |
| 15 | 0.000 | | 0.2899 | 6.697 | 1006.2 | 0.2899 | 11.495 | 1144.1 | 0.2736 |
| 16 | 0.000 | | 0.2762 | 6.283 | 970.6 | 0.2762 | 11.027 | 1134.9 | 0.2593 |
| 17 | 0.000 | | 0.2646 | 5.784 | 929.4 | 0.2646 | 10.346 | 1104.4 | 0.2471 |
| 18 | 0.000 | | 0.2549 | 5.095 | 875.7 | 0.2549 | 9.256 | 1040.4 | 0.2368 |
| 19 | 0.000 | | 0.2469 | 4.626 | 841.0 | 0.2469 | 8.437 | 987.7 | 0.2284 |
| 20 | 0.000 | | 0.2403 | 4.232 | 813.0 | 0.2403 | 7.692 | 937.8 | 0.2214 |
| 21 | 0.000 | | 0.2346 | 3.807 | 783.9 | 0.2346 | 6.872 | 884.8 | 0.2157 |
| 22 | 0.000 | | 0.2297 | 3.214 | 745.0 | 0.2297 | 5.756 | 819.5 | 0.2109 |
| 23 | 0.000 | | 0.2259 | 2.554 | 703.9 | 0.2259 | 4.536 | 755.2 | 0.2072 |
| 24 | 0.000 | | 0.2230 | 1.055 | 618.5 | 0.2230 | 1.897 | 639.1 | 0.2042 |
| 25 | 0.000 | | 0.2219 | 0.693 | 599.2 | 0.2219 | 1.239 | 611.7 | 0.2033 |
| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.418 | 654.9 | 0.7396 | 3.440 | 632.0 | 0.7396 | | | |
| 2 | 12.151 | 965.6 | 0.7396 | 12.230 | 852.6 | 0.7396 | | | |
| 3 | 16.757 | 1041.2 | 0.7239 | 16.861 | 904.9 | 0.724 | | | |
| 4 | 19.107 | 1079.0 | 0.6757 | 19.224 | 960.2 | 0.6759 | | | |
| 5 | 19.866 | 1073.7 | 0.6164 | 19.989 | 986.9 | 0.6166 | | | |
| 6 | 19.972 | 1066.2 | 0.5571 | 20.099 | 1005.2 | 0.5574 | | | |
| 7 | 19.934 | 1065.1 | 0.5041 | 20.064 | 1019.1 | 0.5044 | | | |
| 8 | 19.986 | 1069.9 | 0.4590 | 20.117 | 1023.8 | 0.4593 | | | |
| 9 | 20.683 | 1091.8 | 0.4202 | 20.820 | 1052.5 | 0.4205 | | | |
| 10 | 20.676 | 1103.4 | 0.3865 | 20.815 | 1062.2 | 0.3867 | | | |
| 11 | 20.557 | 1117.1 | 0.3576 | 20.699 | 1077.0 | 0.3579 | | | |
| 12 | 20.385 | 1131.7 | 0.3328 | 20.531 | 1097.1 | 0.3330 | | | |
| 13 | 20.192 | 1146.7 | 0.3113 | 20.343 | 1122.7 | 0.3114 | | | |
| 14 | 19.987 | 1161.1 | 0.2923 | 20.139 | 1127.9 | 0.2924 | | | |
| 15 | 19.741 | 1173.5 | 0.2755 | 19.892 | 1122.7 | 0.2756 | | | |
| 16 | 19.364 | 1183.2 | 0.2606 | 19.511 | 1102.2 | 0.2607 | | | |
| 17 | 18.718 | 1186.9 | 0.2474 | 18.860 | 1077.0 | 0.2476 | | | |
| 18 | 17.526 | 1176.0 | 0.2361 | 17.662 | 1047.7 | 0.2361 | | | |
| 19 | 16.471 | 1151.3 | 0.2261 | 16.600 | 1014.5 | 0.2262 | | | |
| 20 | 15.307 | 1108.7 | 0.2175 | 15.428 | 977.9 | 0.2176 | | | |
| 21 | 13.760 | 1038.6 | 0.2100 | 13.868 | 921.5 | 0.2101 | | | |
| 22 | 11.579 | 944.5 | 0.2039 | 11.672 | 860.8 | 0.2040 | | | |
| 23 | 9.055 | 841.5 | 0.1992 | 9.127 | 782.7 | 0.1993 | | | |
| 24 | 3.806 | 668.7 | 0.1959 | 3.836 | 647.3 | 0.1960 | | | |
| 25 | 2.450 | 628.6 | 0.1946 | 2.468 | 612.7 | 0.1947 | | | |

Table 4-111. LS1 Burnup and TH Feedback Parameters Assembly G7

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.040 | 624.3 | 0.7396 | 1.813 | 642.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.615 | 808.3 | 0.7396 | 6.339 | 893.1 | 0.7396 |
| 3 | 0.000 | | 0.7392 | 5.038 | 871.4 | 0.7392 | 8.991 | 1008.7 | 0.7313 |
| 4 | 0.000 | Data | 0.7094 | 6.014 | 948.2 | 0.7094 | 10.777 | 1138.1 | 0.6909 |
| 5 | 0.000 | Not | 0.6663 | 6.580 | 996.0 | 0.6663 | 11.685 | 1197.8 | 0.6375 |
| 6 | 0.000 | Required | 0.6154 | 6.909 | 1025.0 | 0.6154 | 12.095 | 1212.4 | 0.5803 |
| 7 | 0.000 | | 0.5625 | 7.130 | 1045.0 | 0.5625 | 12.317 | 1212.6 | 0.5258 |
| 8 | 0.000 | | 0.5129 | 7.340 | 1064.3 | 0.5129 | 12.541 | 1215.2 | 0.4774 |
| 9 | 0.000 | | 0.4680 | 7.808 | 1108.9 | 0.4680 | 13.202 | 1250.7 | 0.4350 |
| 10 | 0.000 | | 0.4287 | 7.848 | 1112.8 | 0.4287 | 13.245 | 1251.3 | 0.3977 |
| 11 | 0.000 | | 0.3954 | 7.750 | 1103.3 | 0.3954 | 13.128 | 1247.7 | 0.3660 |
| 12 | 0.000 | | 0.3670 | 7.569 | 1085.9 | 0.3670 | 12.923 | 1243.3 | 0.3389 |
| 13 | 0.000 | | 0.3430 | 7.336 | 1064.0 | 0.3430 | 12.645 | 1234.9 | 0.3157 |
| 14 | 0.000 | | 0.3225 | 7.063 | 1038.9 | 0.3225 | 12.279 | 1217.9 | 0.2959 |
| 15 | 0.000 | | 0.3050 | 6.743 | 1010.2 | 0.3050 | 11.796 | 1188.5 | 0.2789 |
| 16 | 0.000 | | 0.2900 | 6.359 | 977.0 | 0.2900 | 11.170 | 1146.3 | 0.2642 |
| 17 | 0.000 | | 0.2771 | 5.878 | 937.1 | 0.2771 | 10.362 | 1091.7 | 0.2518 |
| 18 | 0.000 | | 0.2664 | 5.180 | 882.2 | 0.2664 | 9.193 | 1017.8 | 0.2413 |
| 19 | 0.000 | | 0.2575 | 4.681 | 845.0 | 0.2575 | 8.318 | 962.6 | 0.2327 |
| 20 | 0.000 | | 0.2499 | 4.232 | 813.0 | 0.2499 | 7.515 | 913.6 | 0.2254 |
| 21 | 0.000 | | 0.2435 | 3.758 | 780.6 | 0.2435 | 6.664 | 864.4 | 0.2193 |
| 22 | 0.000 | | 0.2381 | 3.139 | 740.2 | 0.2381 | 5.558 | 804.9 | 0.2143 |
| 23 | 0.000 | | 0.2338 | 2.479 | 699.4 | 0.2338 | 4.382 | 746.5 | 0.2102 |
| 24 | 0.000 | | 0.2306 | 1.016 | 616.4 | 0.2306 | 1.831 | 636.6 | 0.2069 |
| 25 | 0.000 | | 0.2294 | 0.665 | 597.7 | 0.2294 | 1.197 | 610.4 | 0.2058 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.404 | 663.1 | 0.7396 | 3.426 | 632.0 | 0.7396 | | | |
| 2 | 11.988 | 999.0 | 0.7396 | 12.069 | 861.4 | 0.7396 | | | |
| 3 | 16.327 | 1081.2 | 0.7229 | 16.436 | 925.8 | 0.7229 | | | |
| 4 | 18.486 | 1118.1 | 0.6752 | 18.610 | 991.5 | 0.6753 | | | |
| 5 | 19.213 | 1100.0 | 0.6186 | 19.348 | 1042.8 | 0.6188 | | | |
| 6 | 19.391 | 1077.3 | 0.5625 | 19.536 | 1092.0 | 0.5627 | | | |
| 7 | 19.468 | 1063.4 | 0.5114 | 19.621 | 1133.1 | 0.5114 | | | |
| 8 | 19.647 | 1059.1 | 0.4666 | 19.806 | 1165.0 | 0.4666 | | | |
| 9 | 20.474 | 1075.0 | 0.4274 | 20.640 | 1203.4 | 0.4274 | | | |
| 10 | 20.608 | 1083.8 | 0.3928 | 20.774 | 1203.4 | 0.3927 | | | |
| 11 | 20.628 | 1097.3 | 0.3629 | 20.792 | 1192.3 | 0.3628 | | | |
| 12 | 20.589 | 1113.8 | 0.3370 | 20.750 | 1175.9 | 0.3369 | | | |
| 13 | 20.504 | 1133.3 | 0.3144 | 20.662 | 1159.7 | 0.3144 | | | |
| 14 | 20.350 | 1155.1 | 0.2948 | 20.505 | 1143.7 | 0.2947 | | | |
| 15 | 20.088 | 1178.4 | 0.2775 | 20.240 | 1127.9 | 0.2773 | | | |
| 16 | 19.664 | 1200.0 | 0.2621 | 19.813 | 1112.4 | 0.2621 | | | |
| 17 | 18.992 | 1214.8 | 0.2486 | 19.136 | 1087.0 | 0.2485 | | | |
| 18 | 17.798 | 1212.1 | 0.2365 | 17.937 | 1062.2 | 0.2365 | | | |
| 19 | 16.746 | 1192.9 | 0.2261 | 16.880 | 1038.1 | 0.2259 | | | |
| 20 | 15.564 | 1152.8 | 0.2169 | 15.691 | 1005.2 | 0.2167 | | | |
| 21 | 14.004 | 1081.6 | 0.2089 | 14.118 | 947.1 | 0.2088 | | | |
| 22 | 11.823 | 982.4 | 0.2024 | 11.922 | 884.6 | 0.2022 | | | |
| 23 | 9.303 | 871.9 | 0.1973 | 9.381 | 804.3 | 0.1972 | | | |
| 24 | 3.936 | 680.4 | 0.1936 | 3.969 | 656.2 | 0.1935 | | | |
| 25 | 2.545 | 636.3 | 0.1922 | 2.567 | 624.1 | 0.1921 | | | |

Table 4-112. LS1 Burnup and TH Feedback Parameters Assembly G8

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.048 | 624.9 | 0.7396 | 1.746 | 633.9 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.619 | 808.6 | 0.7396 | 6.073 | 853.9 | 0.7396 |
| 3 | 0.000 | | 0.7385 | 5.014 | 869.6 | 0.7385 | 8.591 | 954.1 | 0.7345 |
| 4 | 0.000 | Data | 0.7083 | 5.967 | 944.3 | 0.7083 | 10.333 | 1072.6 | 0.6978 |
| 5 | 0.000 | Not | 0.6651 | 6.535 | 992.1 | 0.6651 | 11.283 | 1135.6 | 0.6475 |
| 6 | 0.000 | Required | 0.6145 | 6.882 | 1022.6 | 0.6145 | 11.761 | 1158.0 | 0.5917 |
| 7 | 0.000 | | 0.5623 | 7.122 | 1044.2 | 0.5623 | 12.032 | 1163.4 | 0.5373 |
| 8 | 0.000 | | 0.5131 | 7.340 | 1064.3 | 0.5131 | 12.280 | 1168.6 | 0.4882 |
| 9 | 0.000 | | 0.4686 | 7.808 | 1108.9 | 0.4686 | 12.942 | 1203.0 | 0.4451 |
| 10 | 0.000 | | 0.4294 | 7.848 | 1112.8 | 0.4294 | 12.984 | 1203.4 | 0.4073 |
| 11 | 0.000 | | 0.3960 | 7.755 | 1103.8 | 0.3960 | 12.866 | 1198.9 | 0.3751 |
| 12 | 0.000 | | 0.3675 | 7.586 | 1087.5 | 0.3675 | 12.664 | 1193.0 | 0.3475 |
| 13 | 0.000 | | 0.3433 | 7.382 | 1068.3 | 0.3433 | 12.410 | 1184.1 | 0.3239 |
| 14 | 0.000 | | 0.3226 | 7.172 | 1048.8 | 0.3226 | 12.112 | 1168.6 | 0.3038 |
| 15 | 0.000 | | 0.3047 | 6.931 | 1026.9 | 0.3047 | 11.727 | 1143.7 | 0.2864 |
| 16 | 0.000 | | 0.2893 | 6.612 | 998.8 | 0.2893 | 11.198 | 1108.4 | 0.2713 |
| 17 | 0.000 | | 0.2760 | 6.160 | 960.3 | 0.2760 | 10.457 | 1061.6 | 0.2584 |
| 18 | 0.000 | | 0.2648 | 5.460 | 903.7 | 0.2648 | 9.329 | 996.2 | 0.2474 |
| 19 | 0.000 | | 0.2557 | 4.955 | 865.2 | 0.2557 | 8.488 | 947.9 | 0.2384 |
| 20 | 0.000 | | 0.2478 | 4.488 | 831.1 | 0.2478 | 7.714 | 906.0 | 0.2307 |
| 21 | 0.000 | | 0.2411 | 3.986 | 796.0 | 0.2411 | 6.894 | 864.7 | 0.2240 |
| 22 | 0.000 | | 0.2355 | 3.328 | 752.3 | 0.2355 | 5.802 | 811.4 | 0.2184 |
| 23 | 0.000 | | 0.2311 | 2.626 | 708.3 | 0.2311 | 4.610 | 755.4 | 0.2140 |
| 24 | 0.000 | | 0.2280 | 1.075 | 619.6 | 0.2280 | 1.933 | 640.6 | 0.2106 |
| 25 | 0.000 | | 0.2268 | 0.701 | 599.6 | 0.2268 | 1.260 | 612.9 | 0.2093 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.176 | 652.1 | 0.7396 | 3.198 | 632.0 | 0.7396 | | | |
| 2 | 11.143 | 943.3 | 0.7396 | 11.225 | 865.8 | 0.7396 | | | |
| 3 | 15.305 | 1022.6 | 0.7288 | 15.413 | 921.5 | 0.7288 | | | |
| 4 | 17.506 | 1065.5 | 0.6868 | 17.628 | 982.4 | 0.6869 | | | |
| 5 | 18.368 | 1057.1 | 0.6340 | 18.496 | 1009.8 | 0.6341 | | | |
| 6 | 18.684 | 1041.9 | 0.5790 | 18.814 | 1019.1 | 0.5792 | | | |
| 7 | 18.862 | 1033.2 | 0.5274 | 18.993 | 1023.8 | 0.5276 | | | |
| 8 | 19.103 | 1032.6 | 0.4816 | 19.236 | 1033.3 | 0.4816 | | | |
| 9 | 19.954 | 1050.2 | 0.4412 | 20.092 | 1057.3 | 0.4414 | | | |
| 10 | 20.103 | 1060.4 | 0.4056 | 20.243 | 1067.1 | 0.4058 | | | |
| 11 | 20.132 | 1074.4 | 0.3749 | 20.274 | 1077.0 | 0.3751 | | | |
| 12 | 20.099 | 1090.9 | 0.3483 | 20.245 | 1097.1 | 0.3484 | | | |
| 13 | 20.030 | 1109.2 | 0.3253 | 20.180 | 1117.5 | 0.3253 | | | |
| 14 | 19.926 | 1128.7 | 0.3050 | 20.078 | 1127.9 | 0.3051 | | | |
| 15 | 19.736 | 1148.7 | 0.2872 | 19.886 | 1117.5 | 0.2873 | | | |
| 16 | 19.389 | 1167.7 | 0.2715 | 19.534 | 1092.0 | 0.2715 | | | |
| 17 | 18.780 | 1181.7 | 0.2575 | 18.918 | 1057.3 | 0.2575 | | | |
| 18 | 17.650 | 1181.5 | 0.2451 | 17.780 | 1019.1 | 0.2451 | | | |
| 19 | 16.679 | 1167.7 | 0.2342 | 16.801 | 982.4 | 0.2342 | | | |
| 20 | 15.594 | 1135.4 | 0.2245 | 15.707 | 942.8 | 0.2245 | | | |
| 21 | 14.139 | 1072.4 | 0.2161 | 14.239 | 888.6 | 0.2161 | | | |
| 22 | 12.043 | 980.3 | 0.2091 | 12.128 | 830.1 | 0.2091 | | | |
| 23 | 9.540 | 872.6 | 0.2036 | 9.607 | 765.3 | 0.2036 | | | |
| 24 | 4.042 | 680.6 | 0.1998 | 4.070 | 641.4 | 0.1998 | | | |
| 25 | 2.605 | 636.1 | 0.1984 | 2.623 | 612.7 | 0.1984 | | | |

Table 4-113. LS1 Burnup and TH Feedback Parameters Assembly G9

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.129 | 630.1 | 0.7396 | 1.888 | 640.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.906 | 831.7 | 0.7396 | 6.597 | 888.2 | 0.7396 |
| 3 | 0.000 | | 0.7352 | 5.423 | 900.9 | 0.7352 | 9.376 | 1008.7 | 0.7305 |
| 4 | 0.000 | Data | 0.6997 | 6.463 | 985.9 | 0.6997 | 11.271 | 1145.8 | 0.6878 |
| 5 | 0.000 | Not | 0.6496 | 7.070 | 1039.5 | 0.6496 | 12.244 | 1210.3 | 0.6299 |
| 6 | 0.000 | Required | 0.5923 | 7.410 | 1070.9 | 0.5923 | 12.669 | 1225.7 | 0.5680 |
| 7 | 0.000 | | 0.5360 | 7.618 | 1090.6 | 0.5360 | 12.864 | 1223.4 | 0.5106 |
| 8 | 0.000 | | 0.4862 | 7.807 | 1108.8 | 0.4862 | 13.038 | 1220.6 | 0.4617 |
| 9 | 0.000 | | 0.4435 | 8.283 | 1156.1 | 0.4435 | 13.660 | 1247.6 | 0.4205 |
| 10 | 0.000 | | 0.4086 | 8.374 | 1165.4 | 0.4086 | 13.713 | 1240.5 | 0.3861 |
| 11 | 0.000 | | 0.3765 | 8.273 | 1155.1 | 0.3765 | 13.557 | 1230.3 | 0.3554 |
| 12 | 0.000 | | 0.3485 | 8.066 | 1134.3 | 0.3485 | 13.289 | 1219.2 | 0.3287 |
| 13 | 0.000 | | 0.3246 | 7.814 | 1109.5 | 0.3246 | 12.972 | 1207.4 | 0.3059 |
| 14 | 0.000 | | 0.3044 | 7.534 | 1082.6 | 0.3044 | 12.612 | 1193.0 | 0.2865 |
| 15 | 0.000 | | 0.2872 | 7.214 | 1052.7 | 0.2872 | 12.176 | 1172.5 | 0.2697 |
| 16 | 0.000 | | 0.2724 | 6.824 | 1017.4 | 0.2724 | 11.611 | 1142.2 | 0.2553 |
| 17 | 0.000 | | 0.2599 | 6.326 | 974.2 | 0.2599 | 10.846 | 1097.5 | 0.2429 |
| 18 | 0.000 | | 0.2495 | 5.593 | 914.2 | 0.2495 | 9.689 | 1030.4 | 0.2325 |
| 19 | 0.000 | | 0.2410 | 5.066 | 873.5 | 0.2410 | 8.811 | 978.1 | 0.2240 |
| 20 | 0.000 | | 0.2337 | 4.584 | 838.0 | 0.2337 | 7.991 | 930.5 | 0.2168 |
| 21 | 0.000 | | 0.2275 | 4.065 | 801.4 | 0.2275 | 7.106 | 881.7 | 0.2107 |
| 22 | 0.000 | | 0.2225 | 3.389 | 756.2 | 0.2225 | 5.940 | 820.6 | 0.2055 |
| 23 | 0.000 | | 0.2184 | 2.673 | 711.2 | 0.2184 | 4.691 | 759.1 | 0.2015 |
| 24 | 0.000 | | 0.2155 | 1.096 | 620.7 | 0.2155 | 1.965 | 641.6 | 0.1984 |
| 25 | 0.000 | | 0.2144 | 0.720 | 600.6 | 0.2144 | 1.287 | 613.6 | 0.1974 |
| | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.384 | 656.6 | 0.7396 | 3.408 | 638.8 | 0.7396 | | | |
| 2 | 11.925 | 967.7 | 0.7396 | 12.014 | 897.5 | 0.7396 | | | |
| 3 | 16.315 | 1043.4 | 0.7248 | 16.430 | 951.5 | 0.7248 | | | |
| 4 | 18.615 | 1082.0 | 0.6777 | 18.741 | 1000.6 | 0.6778 | | | |
| 5 | 19.510 | 1074.4 | 0.6193 | 19.641 | 1023.8 | 0.6195 | | | |
| 6 | 19.816 | 1063.0 | 0.5600 | 19.949 | 1033.3 | 0.5602 | | | |
| 7 | 19.966 | 1058.7 | 0.5062 | 20.099 | 1033.3 | 0.5065 | | | |
| 8 | 20.170 | 1061.6 | 0.4603 | 20.304 | 1038.1 | 0.4605 | | | |
| 9 | 21.008 | 1082.4 | 0.4211 | 21.146 | 1057.3 | 0.4213 | | | |
| 10 | 21.177 | 1093.7 | 0.3878 | 21.315 | 1057.3 | 0.3879 | | | |
| 11 | 21.169 | 1108.4 | 0.3582 | 21.306 | 1052.5 | 0.3584 | | | |
| 12 | 21.068 | 1125.2 | 0.3323 | 21.203 | 1042.8 | 0.3324 | | | |
| 13 | 20.928 | 1143.2 | 0.3099 | 21.061 | 1033.3 | 0.3100 | | | |
| 14 | 20.749 | 1162.0 | 0.2903 | 20.879 | 1019.1 | 0.2905 | | | |
| 15 | 20.491 | 1180.8 | 0.2732 | 20.617 | 1000.6 | 0.2733 | | | |
| 16 | 20.087 | 1198.1 | 0.2581 | 20.208 | 977.9 | 0.2582 | | | |
| 17 | 19.432 | 1210.0 | 0.2447 | 19.547 | 951.5 | 0.2448 | | | |
| 18 | 18.254 | 1207.7 | 0.2330 | 18.363 | 925.8 | 0.2332 | | | |
| 19 | 17.216 | 1190.4 | 0.2228 | 17.317 | 892.6 | 0.2229 | | | |
| 20 | 16.044 | 1153.3 | 0.2136 | 16.138 | 864.7 | 0.2138 | | | |
| 21 | 14.468 | 1083.7 | 0.2057 | 14.551 | 822.7 | 0.2059 | | | |
| 22 | 12.252 | 986.5 | 0.1992 | 12.323 | 779.2 | 0.1994 | | | |
| 23 | 9.654 | 875.1 | 0.1941 | 9.709 | 724.9 | 0.1943 | | | |
| 24 | 4.083 | 681.1 | 0.1906 | 4.106 | 626.9 | 0.1908 | | | |
| 25 | 2.639 | 636.5 | 0.1893 | 2.653 | 601.5 | 0.1894 | | | |

Table 4-114. LS1 Burnup and TH Feedback Parameters Assembly G10

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.140 | 630.8 | 0.7396 | 1.872 | 637.6 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.981 | 837.9 | 0.7396 | 6.607 | 878.7 | 0.7396 |
| 3 | 0.000 | | 0.7353 | 5.575 | 912.8 | 0.7353 | 9.467 | 999.6 | 0.7315 |
| 4 | 0.000 | Data | 0.6992 | 6.667 | 1003.6 | 0.6992 | 11.414 | 1135.4 | 0.6895 |
| 5 | 0.000 | Not | 0.6482 | 7.284 | 1059.1 | 0.6482 | 12.381 | 1196.4 | 0.6317 |
| 6 | 0.000 | Required | 0.5901 | 7.601 | 1088.9 | 0.5901 | 12.761 | 1207.7 | 0.5695 |
| 7 | 0.000 | | 0.5332 | 7.769 | 1105.1 | 0.5332 | 12.892 | 1201.1 | 0.5118 |
| 8 | 0.000 | | 0.4830 | 7.912 | 1119.1 | 0.4830 | 12.997 | 1194.3 | 0.4626 |
| 9 | 0.000 | | 0.4395 | 8.330 | 1160.9 | 0.4395 | 13.533 | 1215.5 | 0.4208 |
| 10 | 0.000 | | 0.4020 | 8.311 | 1159.0 | 0.4020 | 13.460 | 1205.7 | 0.3848 |
| 11 | 0.000 | | 0.3703 | 8.168 | 1144.5 | 0.3703 | 13.246 | 1193.0 | 0.3543 |
| 12 | 0.000 | | 0.3435 | 7.953 | 1123.1 | 0.3435 | 12.959 | 1180.2 | 0.3285 |
| 13 | 0.000 | | 0.3208 | 7.690 | 1097.5 | 0.3208 | 12.642 | 1170.7 | 0.3065 |
| 14 | 0.000 | | 0.3016 | 7.385 | 1068.5 | 0.3016 | 12.313 | 1166.5 | 0.2875 |
| 15 | 0.000 | | 0.2851 | 7.029 | 1035.8 | 0.2851 | 11.955 | 1166.2 | 0.2709 |
| 16 | 0.000 | | 0.2711 | 6.612 | 998.8 | 0.2711 | 11.492 | 1158.2 | 0.2564 |
| 17 | 0.000 | | 0.2590 | 6.109 | 956.0 | 0.2590 | 10.813 | 1128.1 | 0.2439 |
| 18 | 0.000 | | 0.2491 | 5.398 | 898.9 | 0.2491 | 9.702 | 1062.8 | 0.2333 |
| 19 | 0.000 | | 0.2410 | 4.904 | 861.4 | 0.2410 | 8.846 | 1007.1 | 0.2247 |
| 20 | 0.000 | | 0.2341 | 4.464 | 829.4 | 0.2341 | 8.035 | 953.3 | 0.2176 |
| 21 | 0.000 | | 0.2282 | 3.988 | 796.1 | 0.2282 | 7.142 | 896.5 | 0.2116 |
| 22 | 0.000 | | 0.2233 | 3.340 | 753.1 | 0.2233 | 5.951 | 827.8 | 0.2067 |
| 23 | 0.000 | | 0.2195 | 2.638 | 709.0 | 0.2195 | 4.672 | 760.9 | 0.2029 |
| 24 | 0.000 | | 0.2167 | 1.084 | 620.0 | 0.2167 | 1.947 | 641.1 | 0.1999 |
| 25 | 0.000 | | 0.2157 | 0.711 | 600.1 | 0.2157 | 1.269 | 612.8 | 0.1990 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | |
| No. | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.401 | 658.9 | 0.7396 | 3.424 | 635.4 | 0.7396 | | | |
| 2 | 12.073 | 981.1 | 0.7396 | 12.158 | 879.3 | 0.7396 | | | |
| 3 | 16.560 | 1057.9 | 0.7239 | 16.673 | 942.8 | 0.7239 | | | |
| 4 | 18.895 | 1095.4 | 0.6762 | 19.021 | 1000.6 | 0.6763 | | | |
| 5 | 19.784 | 1087.7 | 0.6175 | 19.916 | 1028.6 | 0.6177 | | | |
| 6 | 20.064 | 1078.0 | 0.5581 | 20.198 | 1038.1 | 0.5583 | | | |
| 7 | 20.174 | 1076.0 | 0.5042 | 20.310 | 1047.7 | 0.5044 | | | |
| 8 | 20.328 | 1080.7 | 0.4582 | 20.466 | 1057.3 | 0.4583 | | | |
| 9 | 21.097 | 1103.6 | 0.4186 | 21.239 | 1077.0 | 0.4188 | | | |
| 10 | 21.152 | 1116.4 | 0.3843 | 21.296 | 1087.0 | 0.3845 | | | |
| 11 | 21.085 | 1131.3 | 0.3549 | 21.231 | 1097.1 | 0.3550 | | | |
| 12 | 20.957 | 1147.6 | 0.3296 | 21.104 | 1102.2 | 0.3297 | | | |
| 13 | 20.801 | 1164.3 | 0.3076 | 20.950 | 1112.4 | 0.3077 | | | |
| 14 | 20.628 | 1180.8 | 0.2884 | 20.776 | 1107.3 | 0.2884 | | | |
| 15 | 20.412 | 1196.0 | 0.2713 | 20.558 | 1097.1 | 0.2714 | | | |
| 16 | 20.068 | 1208.9 | 0.2562 | 20.210 | 1077.0 | 0.2563 | | | |
| 17 | 19.465 | 1217.2 | 0.2428 | 19.602 | 1052.5 | 0.2429 | | | |
| 18 | 18.307 | 1212.1 | 0.2311 | 18.439 | 1028.6 | 0.2312 | | | |
| 19 | 17.261 | 1191.5 | 0.2209 | 17.387 | 1000.6 | 0.2210 | | | |
| 20 | 16.061 | 1150.5 | 0.2121 | 16.180 | 969.0 | 0.2121 | | | |
| 21 | 14.442 | 1077.7 | 0.2044 | 14.549 | 917.4 | 0.2045 | | | |
| 22 | 12.177 | 979.0 | 0.1982 | 12.269 | 856.9 | 0.1982 | | | |
| 23 | 9.546 | 868.3 | 0.1933 | 9.618 | 782.7 | 0.1934 | | | |
| 24 | 4.019 | 678.4 | 0.1899 | 4.050 | 650.2 | 0.1899 | | | |
| 25 | 2.587 | 634.6 | 0.1887 | 2.607 | 618.4 | 0.1887 | | | |

Table 4-115. LS1 Burnup and TH Feedback Parameters Assembly G11

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.037 | 624.1 | 0.7396 | 1.808 | 642.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.604 | 807.4 | 0.7396 | 6.320 | 891.9 | 0.7396 |
| 3 | 0.000 | | 0.7392 | 5.024 | 870.4 | 0.7392 | 8.968 | 1007.4 | 0.7314 |
| 4 | 0.000 | Data | 0.7095 | 5.998 | 946.9 | 0.7095 | 10.752 | 1136.6 | 0.6911 |
| 5 | 0.000 | Not | 0.6666 | 6.564 | 994.6 | 0.6666 | 11.660 | 1196.2 | 0.6379 |
| 6 | 0.000 | Required | 0.6158 | 6.894 | 1023.6 | 0.6158 | 12.073 | 1211.2 | 0.5808 |
| 7 | 0.000 | | 0.5630 | 7.116 | 1043.7 | 0.5630 | 12.296 | 1211.3 | 0.5263 |
| 8 | 0.000 | | 0.5134 | 7.326 | 1063.0 | 0.5134 | 12.521 | 1214.1 | 0.4778 |
| 9 | 0.000 | | 0.4685 | 7.795 | 1107.6 | 0.4685 | 13.183 | 1249.6 | 0.4354 |
| 10 | 0.000 | | 0.4291 | 7.836 | 1111.6 | 0.4291 | 13.226 | 1250.0 | 0.3981 |
| 11 | 0.000 | | 0.3958 | 7.738 | 1102.1 | 0.3958 | 13.111 | 1246.8 | 0.3664 |
| 12 | 0.000 | | 0.3675 | 7.558 | 1084.9 | 0.3675 | 12.905 | 1242.0 | 0.3393 |
| 13 | 0.000 | | 0.3434 | 7.325 | 1062.9 | 0.3434 | 12.627 | 1233.6 | 0.3161 |
| 14 | 0.000 | | 0.3229 | 7.053 | 1037.9 | 0.3229 | 12.263 | 1216.8 | 0.2962 |
| 15 | 0.000 | | 0.3054 | 6.733 | 1009.4 | 0.3054 | 11.780 | 1187.5 | 0.2792 |
| 16 | 0.000 | | 0.2903 | 6.349 | 976.2 | 0.2903 | 11.155 | 1145.4 | 0.2645 |
| 17 | 0.000 | | 0.2775 | 5.869 | 936.3 | 0.2775 | 10.348 | 1090.8 | 0.2521 |
| 18 | 0.000 | | 0.2666 | 5.172 | 881.5 | 0.2666 | 9.179 | 1016.8 | 0.2415 |
| 19 | 0.000 | | 0.2578 | 4.674 | 844.5 | 0.2578 | 8.305 | 961.8 | 0.2329 |
| 20 | 0.000 | | 0.2503 | 4.225 | 812.5 | 0.2503 | 7.503 | 913.0 | 0.2256 |
| 21 | 0.000 | | 0.2438 | 3.752 | 780.2 | 0.2438 | 6.654 | 863.9 | 0.2195 |
| 22 | 0.000 | | 0.2384 | 3.135 | 739.9 | 0.2384 | 5.550 | 804.5 | 0.2145 |
| 23 | 0.000 | | 0.2341 | 2.475 | 699.2 | 0.2341 | 4.375 | 746.2 | 0.2105 |
| 24 | 0.000 | | 0.2309 | 1.015 | 616.3 | 0.2309 | 1.828 | 636.4 | 0.2072 |
| 25 | 0.000 | | 0.2297 | 0.663 | 597.6 | 0.2297 | 1.195 | 610.4 | 0.2060 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.397 | 663.0 | 0.7396 | 3.419 | 632.0 | 0.7396 | | | |
| 2 | 11.961 | 998.2 | 0.7396 | 12.043 | 865.8 | 0.7396 | | | |
| 3 | 16.296 | 1080.4 | 0.7229 | 16.404 | 921.5 | 0.7230 | | | |
| 4 | 18.454 | 1117.4 | 0.6753 | 18.578 | 991.5 | 0.6755 | | | |
| 5 | 19.183 | 1099.5 | 0.6189 | 19.317 | 1038.1 | 0.6190 | | | |
| 6 | 19.363 | 1076.8 | 0.5628 | 19.507 | 1087.0 | 0.5630 | | | |
| 7 | 19.440 | 1062.7 | 0.5117 | 19.593 | 1133.1 | 0.5118 | | | |
| 8 | 19.619 | 1058.4 | 0.4669 | 19.779 | 1170.4 | 0.4669 | | | |
| 9 | 20.447 | 1074.2 | 0.4277 | 20.612 | 1197.8 | 0.4277 | | | |
| 10 | 20.581 | 1083.1 | 0.3931 | 20.747 | 1203.4 | 0.3931 | | | |
| 11 | 20.602 | 1096.4 | 0.3632 | 20.765 | 1186.8 | 0.3631 | | | |
| 12 | 20.563 | 1113.0 | 0.3372 | 20.724 | 1175.9 | 0.3372 | | | |
| 13 | 20.478 | 1132.5 | 0.3147 | 20.635 | 1154.3 | 0.3146 | | | |
| 14 | 20.325 | 1154.2 | 0.2950 | 20.480 | 1143.7 | 0.2949 | | | |
| 15 | 20.063 | 1177.4 | 0.2777 | 20.214 | 1122.7 | 0.2775 | | | |
| 16 | 19.639 | 1198.9 | 0.2623 | 19.788 | 1112.4 | 0.2622 | | | |
| 17 | 18.967 | 1213.6 | 0.2488 | 19.112 | 1092.0 | 0.2486 | | | |
| 18 | 17.774 | 1211.0 | 0.2367 | 17.914 | 1067.1 | 0.2366 | | | |
| 19 | 16.723 | 1191.8 | 0.2262 | 16.857 | 1038.1 | 0.2261 | | | |
| 20 | 15.542 | 1151.8 | 0.2170 | 15.669 | 1005.2 | 0.2169 | | | |
| 21 | 13.984 | 1080.6 | 0.2091 | 14.098 | 947.1 | 0.2090 | | | |
| 22 | 11.806 | 981.6 | 0.2025 | 11.905 | 884.6 | 0.2024 | | | |
| 23 | 9.289 | 871.3 | 0.1975 | 9.367 | 804.3 | 0.1974 | | | |
| 24 | 3.931 | 680.2 | 0.1937 | 3.964 | 656.2 | 0.1937 | | | |
| 25 | 2.542 | 636.2 | 0.1924 | 2.563 | 621.2 | 0.1922 | | | |

Table 4-116. LS1 Burnup and TH Feedback Parameters Assembly G12

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.011 | 622.5 | 0.7396 | 1.756 | 639.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.513 | 800.2 | 0.7396 | 6.138 | 878.6 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 4.898 | 916.3 | 0.7396 | 8.711 | 1068.4 | 0.7326 |
| 4 | 0.000 | Data | 0.7109 | 5.863 | 935.8 | 0.7109 | 10.480 | 1113.5 | 0.6940 |
| 5 | 0.000 | Not | 0.6690 | 6.452 | 985.0 | 0.6690 | 11.431 | 1175.5 | 0.6423 |
| 6 | 0.000 | Required | 0.6192 | 6.815 | 1016.6 | 0.6192 | 11.897 | 1193.7 | 0.5861 |
| 7 | 0.000 | | 0.5671 | 7.062 | 1038.8 | 0.5671 | 12.151 | 1195.0 | 0.5320 |
| 8 | 0.000 | | 0.5178 | 7.281 | 1058.9 | 0.5178 | 12.384 | 1197.5 | 0.4835 |
| 9 | 0.000 | | 0.4731 | 7.753 | 1103.6 | 0.4731 | 13.044 | 1231.6 | 0.4410 |
| 10 | 0.000 | | 0.4338 | 7.798 | 1107.9 | 0.4338 | 13.091 | 1232.0 | 0.4037 |
| 11 | 0.000 | | 0.4002 | 7.706 | 1099.0 | 0.4002 | 12.989 | 1230.2 | 0.3716 |
| 12 | 0.000 | | 0.3715 | 7.528 | 1082.0 | 0.3715 | 12.815 | 1230.9 | 0.3440 |
| 13 | 0.000 | | 0.3471 | 7.302 | 1060.8 | 0.3471 | 12.586 | 1230.3 | 0.3204 |
| 14 | 0.000 | | 0.3262 | 7.041 | 1036.9 | 0.3262 | 12.275 | 1221.2 | 0.3000 |
| 15 | 0.000 | | 0.3083 | 6.737 | 1009.7 | 0.3083 | 11.832 | 1196.0 | 0.2825 |
| 16 | 0.000 | | 0.2929 | 6.367 | 977.7 | 0.2929 | 11.238 | 1156.6 | 0.2674 |
| 17 | 0.000 | | 0.2799 | 5.896 | 938.5 | 0.2799 | 10.456 | 1104.1 | 0.2546 |
| 18 | 0.000 | | 0.2690 | 5.203 | 883.9 | 0.2690 | 9.303 | 1031.0 | 0.2437 |
| 19 | 0.000 | | 0.2599 | 4.713 | 847.3 | 0.2599 | 8.445 | 976.2 | 0.2349 |
| 20 | 0.000 | | 0.2522 | 4.273 | 815.9 | 0.2522 | 7.659 | 927.6 | 0.2274 |
| 21 | 0.000 | | 0.2456 | 3.809 | 784.0 | 0.2456 | 6.823 | 878.2 | 0.2211 |
| 22 | 0.000 | | 0.2401 | 3.196 | 743.8 | 0.2401 | 5.718 | 817.1 | 0.2158 |
| 23 | 0.000 | | 0.2356 | 2.532 | 702.6 | 0.2356 | 4.524 | 756.3 | 0.2117 |
| 24 | 0.000 | | 0.2325 | 1.041 | 617.7 | 0.2325 | 1.894 | 640.1 | 0.2083 |
| 25 | 0.000 | | 0.2312 | 0.679 | 598.4 | 0.2312 | 1.236 | 612.7 | 0.2071 |
| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.300 | 659.9 | 0.7396 | 3.322 | 632.0 | 0.7396 | | | |
| 2 | 11.615 | 982.1 | 0.7396 | 11.696 | 861.4 | 0.7396 | | | |
| 3 | 15.870 | 1064.2 | 0.7246 | 15.977 | 917.4 | 0.7246 | | | |
| 4 | 18.041 | 1103.3 | 0.6786 | 18.163 | 982.4 | 0.6788 | | | |
| 5 | 18.853 | 1089.6 | 0.6236 | 18.984 | 1023.8 | 0.6237 | | | |
| 6 | 19.131 | 1071.4 | 0.5682 | 19.268 | 1052.5 | 0.5684 | | | |
| 7 | 19.281 | 1061.4 | 0.5171 | 19.422 | 1072.1 | 0.5173 | | | |
| 8 | 19.498 | 1059.9 | 0.4721 | 19.644 | 1097.1 | 0.4721 | | | |
| 9 | 20.345 | 1077.8 | 0.4326 | 20.495 | 1117.5 | 0.4327 | | | |
| 10 | 20.492 | 1087.5 | 0.3976 | 20.643 | 1122.7 | 0.3977 | | | |
| 11 | 20.525 | 1100.8 | 0.3674 | 20.675 | 1117.5 | 0.3674 | | | |
| 12 | 20.507 | 1116.4 | 0.3410 | 20.655 | 1107.3 | 0.3410 | | | |
| 13 | 20.451 | 1133.9 | 0.3180 | 20.597 | 1097.1 | 0.3180 | | | |
| 14 | 20.330 | 1153.5 | 0.2979 | 20.474 | 1087.0 | 0.2979 | | | |
| 15 | 20.087 | 1174.4 | 0.2802 | 20.228 | 1072.1 | 0.2802 | | | |
| 16 | 19.680 | 1194.4 | 0.2646 | 19.818 | 1057.3 | 0.2646 | | | |
| 17 | 19.025 | 1208.2 | 0.2508 | 19.160 | 1042.8 | 0.2508 | | | |
| 18 | 17.856 | 1206.4 | 0.2385 | 17.989 | 1033.3 | 0.2386 | | | |
| 19 | 16.838 | 1189.1 | 0.2279 | 16.969 | 1023.8 | 0.2279 | | | |
| 20 | 15.698 | 1151.8 | 0.2185 | 15.824 | 1000.6 | 0.2185 | | | |
| 21 | 14.176 | 1082.9 | 0.2105 | 14.290 | 947.1 | 0.2105 | | | |
| 22 | 12.021 | 985.7 | 0.2038 | 12.120 | 884.6 | 0.2038 | | | |
| 23 | 9.486 | 875.0 | 0.1986 | 9.563 | 800.6 | 0.1986 | | | |
| 24 | 4.016 | 681.4 | 0.1949 | 4.049 | 656.2 | 0.1949 | | | |
| 25 | 2.592 | 636.7 | 0.1935 | 2.612 | 618.4 | 0.1935 | | | |

Table 4-117. LS1 Burnup and TH Feedback Parameters Assembly G13

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.185 | 633.7 | 0.7396 | 1.965 | 643.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.119 | 849.3 | 0.7396 | 6.906 | 902.5 | 0.7396 |
| 3 | 0.000 | | 0.7327 | 5.734 | 925.4 | 0.7327 | 9.839 | 1031.8 | 0.7282 |
| 4 | 0.000 | Data | 0.6934 | 6.809 | 1016.1 | 0.6934 | 11.766 | 1171.6 | 0.6822 |
| 5 | 0.000 | Not | 0.6391 | 7.396 | 1069.6 | 0.6391 | 12.686 | 1231.4 | 0.6209 |
| 6 | 0.000 | Required | 0.5789 | 7.697 | 1098.2 | 0.5789 | 13.042 | 1241.6 | 0.5569 |
| 7 | 0.000 | | 0.5217 | 7.868 | 1114.8 | 0.5217 | 13.179 | 1235.3 | 0.4991 |
| 8 | 0.000 | | 0.4724 | 8.030 | 1130.7 | 0.4724 | 13.311 | 1229.8 | 0.4507 |
| 9 | 0.000 | | 0.4307 | 8.489 | 1177.3 | 0.4307 | 13.900 | 1253.9 | 0.4103 |
| 10 | 0.000 | | 0.3967 | 8.566 | 1185.3 | 0.3967 | 13.932 | 1245.5 | 0.3768 |
| 11 | 0.000 | | 0.3655 | 8.456 | 1173.9 | 0.3655 | 13.764 | 1234.8 | 0.3469 |
| 12 | 0.000 | | 0.3381 | 8.245 | 1152.3 | 0.3381 | 13.492 | 1223.5 | 0.3208 |
| 13 | 0.000 | | 0.3149 | 7.981 | 1125.9 | 0.3149 | 13.163 | 1211.7 | 0.2986 |
| 14 | 0.000 | | 0.2952 | 7.669 | 1095.5 | 0.2952 | 12.771 | 1197.3 | 0.2796 |
| 15 | 0.000 | | 0.2785 | 7.298 | 1060.4 | 0.2785 | 12.285 | 1176.9 | 0.2632 |
| 16 | 0.000 | | 0.2644 | 6.860 | 1020.6 | 0.2644 | 11.670 | 1146.1 | 0.2492 |
| 17 | 0.000 | | 0.2524 | 6.329 | 974.5 | 0.2524 | 10.870 | 1101.0 | 0.2372 |
| 18 | 0.000 | | 0.2425 | 5.581 | 913.3 | 0.2425 | 9.688 | 1032.1 | 0.2271 |
| 19 | 0.000 | | 0.2343 | 5.047 | 872.1 | 0.2343 | 8.789 | 977.7 | 0.2189 |
| 20 | 0.000 | | 0.2274 | 4.562 | 836.4 | 0.2274 | 7.945 | 927.2 | 0.2121 |
| 21 | 0.000 | | 0.2216 | 4.044 | 800.0 | 0.2216 | 7.032 | 874.9 | 0.2062 |
| 22 | 0.000 | | 0.2167 | 3.368 | 754.9 | 0.2167 | 5.845 | 811.8 | 0.2015 |
| 23 | 0.000 | | 0.2129 | 2.655 | 710.1 | 0.2129 | 4.591 | 750.1 | 0.1978 |
| 24 | 0.000 | | 0.2101 | 1.090 | 620.4 | 0.2101 | 1.918 | 637.8 | 0.1949 |
| 25 | 0.000 | | 0.2090 | 0.718 | 600.5 | 0.2090 | 1.257 | 611.1 | 0.1939 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.479 | 657.9 | 0.7396 | 3.498 | 621.8 | 0.7396 | | | |
| 2 | 12.310 | 975.1 | 0.7396 | 12.381 | 818.1 | 0.7396 | | | |
| 3 | 16.814 | 1046.8 | 0.7230 | 16.906 | 856.9 | 0.7231 | | | |
| 4 | 19.118 | 1082.8 | 0.6737 | 19.221 | 900.8 | 0.6739 | | | |
| 5 | 19.963 | 1075.5 | 0.6130 | 20.071 | 921.5 | 0.6133 | | | |
| 6 | 20.217 | 1065.7 | 0.5522 | 20.328 | 934.2 | 0.5527 | | | |
| 7 | 20.325 | 1062.9 | 0.4981 | 20.437 | 938.5 | 0.4987 | | | |
| 8 | 20.496 | 1066.7 | 0.4525 | 20.610 | 947.1 | 0.4530 | | | |
| 9 | 21.306 | 1088.0 | 0.4137 | 21.424 | 964.6 | 0.4143 | | | |
| 10 | 21.457 | 1099.7 | 0.3810 | 21.574 | 960.2 | 0.3815 | | | |
| 11 | 21.435 | 1114.3 | 0.3519 | 21.551 | 955.8 | 0.3524 | | | |
| 12 | 21.327 | 1130.8 | 0.3265 | 21.441 | 947.1 | 0.3270 | | | |
| 13 | 21.176 | 1149.1 | 0.3045 | 21.287 | 934.2 | 0.3050 | | | |
| 14 | 20.969 | 1168.4 | 0.2853 | 21.077 | 921.5 | 0.2858 | | | |
| 15 | 20.670 | 1188.3 | 0.2685 | 20.774 | 904.9 | 0.2689 | | | |
| 16 | 20.223 | 1206.4 | 0.2537 | 20.323 | 888.6 | 0.2541 | | | |
| 17 | 19.534 | 1218.5 | 0.2407 | 19.629 | 868.6 | 0.2411 | | | |
| 18 | 18.328 | 1215.9 | 0.2293 | 18.418 | 849.2 | 0.2297 | | | |
| 19 | 17.253 | 1196.8 | 0.2193 | 17.337 | 826.4 | 0.2197 | | | |
| 20 | 16.032 | 1156.8 | 0.2105 | 16.110 | 804.3 | 0.2108 | | | |
| 21 | 14.402 | 1084.5 | 0.2028 | 14.471 | 772.2 | 0.2031 | | | |
| 22 | 12.141 | 985.1 | 0.1965 | 12.199 | 734.8 | 0.1968 | | | |
| 23 | 9.527 | 873.0 | 0.1915 | 9.572 | 692.8 | 0.1919 | | | |
| 24 | 4.023 | 680.4 | 0.1882 | 4.041 | 612.7 | 0.1885 | | | |
| 25 | 2.598 | 635.9 | 0.1868 | 2.609 | 593.2 | 0.1872 | | | |

Table 4-118. LS1 Burnup and TH Feedback Parameters Assembly G14

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.247 | 637.7 | 0.7396 | 1.963 | 635.9 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 4.310 | 865.3 | 0.7396 | 6.874 | 869.7 | 0.7396 |
| 3 | 0.000 | | 0.7316 | 5.967 | 944.3 | 0.7316 | 9.761 | 985.2 | 0.7302 |
| 4 | 0.000 | Data | 0.6909 | 7.051 | 1037.8 | 0.6909 | 11.659 | 1112.0 | 0.6868 |
| 5 | 0.000 | Not | 0.6353 | 7.618 | 1090.6 | 0.6353 | 12.559 | 1168.8 | 0.6279 |
| 6 | 0.000 | Required | 0.5745 | 7.886 | 1116.5 | 0.5745 | 12.891 | 1180.0 | 0.5648 |
| 7 | 0.000 | | 0.5172 | 8.020 | 1129.7 | 0.5172 | 12.996 | 1174.9 | 0.5069 |
| 8 | 0.000 | | 0.4678 | 8.136 | 1141.3 | 0.4678 | 13.086 | 1170.4 | 0.4579 |
| 9 | 0.000 | | 0.4253 | 8.531 | 1181.6 | 0.4253 | 13.605 | 1192.3 | 0.4164 |
| 10 | 0.000 | | 0.3888 | 8.492 | 1177.6 | 0.3888 | 13.526 | 1185.2 | 0.3807 |
| 11 | 0.000 | | 0.3580 | 8.343 | 1162.3 | 0.3580 | 13.321 | 1175.3 | 0.3507 |
| 12 | 0.000 | | 0.3322 | 8.144 | 1142.1 | 0.3322 | 13.061 | 1164.6 | 0.3252 |
| 13 | 0.000 | | 0.3102 | 7.903 | 1118.2 | 0.3102 | 12.761 | 1154.4 | 0.3035 |
| 14 | 0.000 | | 0.2915 | 7.606 | 1089.4 | 0.2915 | 12.403 | 1143.9 | 0.2849 |
| 15 | 0.000 | | 0.2754 | 7.235 | 1054.6 | 0.2754 | 11.950 | 1130.0 | 0.2688 |
| 16 | 0.000 | | 0.2618 | 6.793 | 1014.7 | 0.2618 | 11.369 | 1106.7 | 0.2549 |
| 17 | 0.000 | | 0.2503 | 6.266 | 969.1 | 0.2503 | 10.607 | 1068.6 | 0.2429 |
| 18 | 0.000 | | 0.2406 | 5.535 | 909.6 | 0.2406 | 9.474 | 1006.6 | 0.2329 |
| 19 | 0.000 | | 0.2327 | 5.021 | 870.1 | 0.2327 | 8.616 | 956.7 | 0.2247 |
| 20 | 0.000 | | 0.2261 | 4.558 | 836.1 | 0.2261 | 7.808 | 909.2 | 0.2178 |
| 21 | 0.000 | | 0.2204 | 4.057 | 800.9 | 0.2204 | 6.927 | 859.9 | 0.2119 |
| 22 | 0.000 | | 0.2156 | 3.393 | 756.5 | 0.2156 | 5.769 | 799.9 | 0.2070 |
| 23 | 0.000 | | 0.2118 | 2.682 | 711.7 | 0.2118 | 4.534 | 741.0 | 0.2032 |
| 24 | 0.000 | | 0.2091 | 1.100 | 620.9 | 0.2091 | 1.890 | 634.2 | 0.2005 |
| 25 | 0.000 | | 0.2081 | 0.723 | 600.8 | 0.2081 | 1.232 | 608.3 | 0.1995 |
| | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| Node | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.332 | 648.0 | 0.7396 | 3.354 | 632.0 | 0.7396 | | | |
| 2 | 11.769 | 927.0 | 0.7396 | 11.853 | 874.8 | 0.7396 | | | |
| 3 | 16.157 | 993.9 | 0.7274 | 16.267 | 930.0 | 0.7274 | | | |
| 4 | 18.481 | 1032.5 | 0.6824 | 18.604 | 986.9 | 0.6826 | | | |
| 5 | 19.393 | 1033.6 | 0.6249 | 19.522 | 1014.5 | 0.6251 | | | |
| 6 | 19.700 | 1031.3 | 0.5652 | 19.830 | 1019.1 | 0.5654 | | | |
| 7 | 19.834 | 1034.0 | 0.5110 | 19.965 | 1023.8 | 0.5111 | | | |
| 8 | 20.006 | 1041.6 | 0.4645 | 20.138 | 1028.6 | 0.4647 | | | |
| 9 | 20.775 | 1065.2 | 0.4245 | 20.911 | 1047.7 | 0.4247 | | | |
| 10 | 20.839 | 1079.0 | 0.3900 | 20.977 | 1057.3 | 0.3902 | | | |
| 11 | 20.793 | 1094.5 | 0.3605 | 20.933 | 1067.1 | 0.3606 | | | |
| 12 | 20.695 | 1110.6 | 0.3351 | 20.838 | 1082.0 | 0.3353 | | | |
| 13 | 20.562 | 1127.4 | 0.3132 | 20.709 | 1102.2 | 0.3133 | | | |
| 14 | 20.375 | 1144.9 | 0.2940 | 20.523 | 1107.3 | 0.2941 | | | |
| 15 | 20.091 | 1162.4 | 0.2770 | 20.237 | 1097.1 | 0.2772 | | | |
| 16 | 19.660 | 1178.3 | 0.2621 | 19.800 | 1067.1 | 0.2623 | | | |
| 17 | 18.992 | 1188.3 | 0.2490 | 19.126 | 1038.1 | 0.2491 | | | |
| 18 | 17.817 | 1183.8 | 0.2376 | 17.943 | 1000.6 | 0.2377 | | | |
| 19 | 16.776 | 1164.4 | 0.2274 | 16.894 | 964.6 | 0.2275 | | | |
| 20 | 15.593 | 1125.8 | 0.2185 | 15.702 | 925.8 | 0.2185 | | | |
| 21 | 14.014 | 1057.3 | 0.2106 | 14.111 | 876.6 | 0.2107 | | | |
| 22 | 11.812 | 963.1 | 0.2042 | 11.895 | 822.7 | 0.2043 | | | |
| 23 | 9.260 | 857.0 | 0.1991 | 9.324 | 755.0 | 0.1992 | | | |
| 24 | 3.896 | 674.5 | 0.1958 | 3.922 | 635.6 | 0.1958 | | | |
| 25 | 2.503 | 632.0 | 0.1944 | 2.519 | 607.1 | 0.1946 | | | |

Table 4-119. LS1 Burnup and TH Feedback Parameters Assembly G15

| Node | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|------------|----------------------|--------------------------------|------------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.031 | 623.8 | 0.7396 | 1.734 | 634.4 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.559 | 803.8 | 0.7396 | 6.039 | 857.6 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 4.948 | 920.7 | 0.7396 | 8.600 | 1040.6 | 0.7342 |
| 4 | 0.000 | Data | 0.7107 | 5.915 | 940.1 | 0.7107 | 10.402 | 1092.1 | 0.6971 |
| 5 | 0.000 | Not | 0.6684 | 6.495 | 988.6 | 0.6684 | 11.380 | 1159.1 | 0.6463 |
| 6 | 0.000 | Required | 0.6178 | 6.845 | 1019.3 | 0.6178 | 11.853 | 1180.6 | 0.5902 |
| 7 | 0.000 | | 0.5650 | 7.088 | 1041.1 | 0.5650 | 12.117 | 1184.3 | 0.5356 |
| 8 | 0.000 | | 0.5153 | 7.320 | 1062.5 | 0.5153 | 12.379 | 1189.6 | 0.4864 |
| 9 | 0.000 | | 0.4702 | 7.810 | 1109.1 | 0.4702 | 13.069 | 1225.7 | 0.4432 |
| 10 | 0.000 | | 0.4305 | 7.862 | 1114.2 | 0.4305 | 13.122 | 1225.9 | 0.4052 |
| 11 | 0.000 | | 0.3968 | 7.765 | 1104.7 | 0.3968 | 12.996 | 1220.6 | 0.3729 |
| 12 | 0.000 | | 0.3684 | 7.576 | 1086.6 | 0.3684 | 12.762 | 1212.4 | 0.3454 |
| 13 | 0.000 | | 0.3443 | 7.327 | 1063.1 | 0.3443 | 12.446 | 1200.3 | 0.3220 |
| 14 | 0.000 | | 0.3237 | 7.031 | 1036.0 | 0.3237 | 12.037 | 1180.2 | 0.3019 |
| 15 | 0.000 | | 0.3062 | 6.685 | 1005.1 | 0.3062 | 11.513 | 1149.2 | 0.2848 |
| 16 | 0.000 | | 0.2913 | 6.279 | 970.2 | 0.2913 | 10.855 | 1106.7 | 0.2702 |
| 17 | 0.000 | | 0.2787 | 5.784 | 929.4 | 0.2787 | 10.026 | 1053.0 | 0.2578 |
| 18 | 0.000 | | 0.2680 | 5.083 | 874.8 | 0.2680 | 8.850 | 981.3 | 0.2473 |
| 19 | 0.000 | | 0.2593 | 4.591 | 838.5 | 0.2593 | 7.984 | 928.6 | 0.2389 |
| 20 | 0.000 | | 0.2519 | 4.152 | 807.4 | 0.2519 | 7.198 | 882.4 | 0.2318 |
| 21 | 0.000 | | 0.2456 | 3.691 | 776.1 | 0.2456 | 6.374 | 836.6 | 0.2258 |
| 22 | 0.000 | | 0.2402 | 3.086 | 736.8 | 0.2402 | 5.305 | 781.7 | 0.2208 |
| 23 | 0.000 | | 0.2359 | 2.440 | 697.1 | 0.2359 | 4.177 | 728.6 | 0.2169 |
| 24 | 0.000 | | 0.2327 | 1.003 | 615.7 | 0.2327 | 1.748 | 630.0 | 0.2136 |
| 25 | 0.000 | | 0.2313 | 0.658 | 597.3 | 0.2313 | 1.145 | 606.4 | 0.2124 |
| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. | | | |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.320 | 662.8 | 0.7396 | 3.341 | 628.6 | 0.7396 | | | |
| 2 | 11.682 | 998.4 | 0.7396 | 11.761 | 852.6 | 0.7396 | | | |
| 3 | 16.013 | 1088.7 | 0.7244 | 16.117 | 904.9 | 0.7245 | | | |
| 4 | 18.224 | 1129.5 | 0.6784 | 18.341 | 960.2 | 0.6786 | | | |
| 5 | 18.996 | 1108.8 | 0.6232 | 19.121 | 996.0 | 0.6234 | | | |
| 6 | 19.195 | 1081.8 | 0.5677 | 19.325 | 1019.1 | 0.5679 | | | |
| 7 | 19.282 | 1064.7 | 0.5166 | 19.414 | 1028.6 | 0.5168 | | | |
| 8 | 19.474 | 1058.1 | 0.4715 | 19.608 | 1038.1 | 0.4717 | | | |
| 9 | 20.314 | 1072.4 | 0.4321 | 20.454 | 1067.1 | 0.4323 | | | |
| 10 | 20.450 | 1080.4 | 0.3971 | 20.591 | 1072.1 | 0.3972 | | | |
| 11 | 20.457 | 1093.4 | 0.3668 | 20.599 | 1077.0 | 0.3670 | | | |
| 12 | 20.393 | 1110.3 | 0.3406 | 20.536 | 1082.0 | 0.3407 | | | |
| 13 | 20.275 | 1130.2 | 0.3179 | 20.418 | 1082.0 | 0.3180 | | | |
| 14 | 20.087 | 1153.0 | 0.2980 | 20.229 | 1077.0 | 0.2981 | | | |
| 15 | 19.789 | 1176.7 | 0.2805 | 19.930 | 1072.1 | 0.2806 | | | |
| 16 | 19.332 | 1198.2 | 0.2651 | 19.470 | 1057.3 | 0.2652 | | | |
| 17 | 18.626 | 1211.5 | 0.2514 | 18.760 | 1038.1 | 0.2514 | | | |
| 18 | 17.394 | 1205.4 | 0.2392 | 17.526 | 1028.6 | 0.2393 | | | |
| 19 | 16.321 | 1183.2 | 0.2287 | 16.451 | 1019.1 | 0.2287 | | | |
| 20 | 15.133 | 1141.1 | 0.2195 | 15.258 | 996.0 | 0.2195 | | | |
| 21 | 13.591 | 1069.7 | 0.2116 | 13.704 | 942.8 | 0.2117 | | | |
| 22 | 11.437 | 970.8 | 0.2051 | 11.533 | 872.6 | 0.2052 | | | |
| 23 | 8.979 | 862.8 | 0.2001 | 9.054 | 793.4 | 0.2002 | | | |
| 24 | 3.806 | 677.6 | 0.1964 | 3.838 | 653.2 | 0.1965 | | | |
| 25 | 2.469 | 634.9 | 0.1950 | 2.489 | 618.4 | 0.1951 | | | |

Table 4-120. LS1 Burnup and TH Feedback Parameters Assembly G16

| Node No. | Statepoint 7 (BOC Cy 7) | | | Statepoint 8 (193.2 EFPD Cy 7) | | | Statepoint 9 (306.8 EFPD Cy 7) | | |
|-------------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| | 0.00 Cy 7 | 0.00 Cy 7 | 0.00 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 193.2 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 | 306.8 Cy 7 |
| 1 | 0.000 | | 0.7396 | 1.054 | 625.2 | 0.7396 | 1.816 | 641.0 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 3.656 | 811.5 | 0.7396 | 6.359 | 890.0 | 0.7396 |
| 3 | 0.000 | | 0.7381 | 5.120 | 877.6 | 0.7381 | 9.096 | 1012.2 | 0.7308 |
| 4 | 0.000 | Data | 0.7065 | 6.144 | 958.9 | 0.7065 | 10.982 | 1150.9 | 0.6892 |
| 5 | 0.000 | Not | 0.6611 | 6.752 | 1011.0 | 0.6611 | 11.950 | 1214.6 | 0.6339 |
| 6 | 0.000 | Required | 0.6079 | 7.106 | 1042.8 | 0.6079 | 12.377 | 1227.9 | 0.5748 |
| 7 | 0.000 | | 0.5538 | 7.331 | 1063.5 | 0.5538 | 12.579 | 1223.7 | 0.5193 |
| 8 | 0.000 | | 0.5041 | 7.538 | 1083.0 | 0.5041 | 12.773 | 1221.4 | 0.4709 |
| 9 | 0.000 | | 0.4599 | 8.013 | 1129.0 | 0.4599 | 13.413 | 1251.9 | 0.4290 |
| 10 | 0.000 | | 0.4214 | 8.046 | 1132.3 | 0.4214 | 13.431 | 1249.0 | 0.3924 |
| 11 | 0.000 | | 0.3885 | 7.940 | 1121.8 | 0.3885 | 13.301 | 1244.6 | 0.3611 |
| 12 | 0.000 | | 0.3602 | 7.749 | 1103.2 | 0.3602 | 13.102 | 1243.1 | 0.3342 |
| 13 | 0.000 | | 0.3363 | 7.504 | 1079.7 | 0.3363 | 12.845 | 1240.9 | 0.3111 |
| 14 | 0.000 | | 0.3159 | 7.211 | 1052.4 | 0.3159 | 12.497 | 1230.7 | 0.2912 |
| 15 | 0.000 | | 0.2986 | 6.864 | 1021.0 | 0.2986 | 12.009 | 1205.0 | 0.2741 |
| 16 | 0.000 | | 0.2838 | 6.450 | 984.8 | 0.2838 | 11.368 | 1164.8 | 0.2595 |
| 17 | 0.000 | | 0.2712 | 5.942 | 942.3 | 0.2712 | 10.540 | 1110.4 | 0.2471 |
| 18 | 0.000 | | 0.2607 | 5.221 | 885.3 | 0.2607 | 9.345 | 1034.7 | 0.2366 |
| 19 | 0.000 | | 0.2522 | 4.715 | 847.5 | 0.2522 | 8.455 | 977.4 | 0.2282 |
| 20 | 0.000 | | 0.2448 | 4.269 | 815.6 | 0.2448 | 7.646 | 926.4 | 0.2211 |
| 21 | 0.000 | | 0.2386 | 3.804 | 783.7 | 0.2386 | 6.788 | 874.4 | 0.2152 |
| 22 | 0.000 | | 0.2333 | 3.187 | 743.2 | 0.2333 | 5.663 | 811.7 | 0.2102 |
| 23 | 0.000 | | 0.2291 | 2.527 | 702.3 | 0.2291 | 4.468 | 750.6 | 0.2064 |
| 24 | 0.000 | | 0.2261 | 1.046 | 618.0 | 0.2261 | 1.878 | 638.2 | 0.2033 |
| 25 | 0.000 | | 0.2249 | 0.688 | 598.9 | 0.2249 | 1.233 | 611.6 | 0.2022 |
| Node No. | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | | | | |
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | | | |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | | | |
| 1 | 3.394 | 662.2 | 0.7396 | 3.409 | 608.4 | 0.7396 | | | |
| 2 | 11.996 | 997.8 | 0.7396 | 12.052 | 756.7 | 0.7396 | | | |
| 3 | 16.444 | 1082.4 | 0.7224 | 16.518 | 789.8 | 0.7225 | | | |
| 4 | 18.713 | 1120.3 | 0.6738 | 18.796 | 822.7 | 0.6741 | | | |
| 5 | 19.524 | 1104.6 | 0.6160 | 19.614 | 849.2 | 0.6164 | | | |
| 6 | 19.760 | 1085.8 | 0.5586 | 19.855 | 868.6 | 0.5591 | | | |
| 7 | 19.861 | 1076.0 | 0.5065 | 19.960 | 884.6 | 0.5072 | | | |
| 8 | 20.043 | 1074.8 | 0.4613 | 20.145 | 896.7 | 0.4621 | | | |
| 9 | 20.871 | 1093.1 | 0.4223 | 20.977 | 913.2 | 0.4230 | | | |
| 10 | 20.988 | 1102.9 | 0.3879 | 21.095 | 917.4 | 0.3886 | | | |
| 11 | 20.987 | 1115.8 | 0.3582 | 21.093 | 913.2 | 0.3589 | | | |
| 12 | 20.936 | 1130.7 | 0.3324 | 21.041 | 909.0 | 0.3330 | | | |
| 13 | 20.846 | 1147.9 | 0.3099 | 20.948 | 896.7 | 0.3105 | | | |
| 14 | 20.684 | 1167.3 | 0.2902 | 20.784 | 888.6 | 0.2908 | | | |
| 15 | 20.394 | 1188.3 | 0.2730 | 20.491 | 876.6 | 0.2735 | | | |
| 16 | 19.938 | 1208.3 | 0.2578 | 20.031 | 860.8 | 0.2583 | | | |
| 17 | 19.233 | 1221.7 | 0.2443 | 19.320 | 837.7 | 0.2448 | | | |
| 18 | 18.007 | 1218.3 | 0.2325 | 18.090 | 822.7 | 0.2330 | | | |
| 19 | 16.936 | 1198.6 | 0.2222 | 17.014 | 804.3 | 0.2227 | | | |
| 20 | 15.747 | 1158.3 | 0.2131 | 15.819 | 782.7 | 0.2136 | | | |
| 21 | 14.175 | 1086.2 | 0.2054 | 14.240 | 758.4 | 0.2059 | | | |
| 22 | 11.969 | 986.0 | 0.1990 | 12.024 | 724.9 | 0.1995 | | | |
| 23 | 9.416 | 874.0 | 0.1941 | 9.458 | 683.5 | 0.1946 | | | |
| 24 | 3.994 | 681.0 | 0.1905 | 4.010 | 607.1 | 0.1910 | | | |
| 25 | 2.591 | 636.9 | 0.1892 | 2.600 | 587.6 | 0.1896 | | | |

Table 4-121. LS1 Burnup and TH Feedback Parameters Assembly H1

| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 0.000 | | 0.7396 | 0.020 | 625.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 0.075 | 835.4 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 0.103 | 964.4 | 0.7396 |
| 4 | 0.000 | Data | 0.7082 | 0.119 | 969.3 | 0.7082 |
| 5 | 0.000 | Not | 0.6624 | 0.127 | 1005.5 | 0.6624 |
| 6 | 0.000 | Required | 0.6094 | 0.130 | 1019.5 | 0.6094 |
| 7 | 0.000 | | 0.5558 | 0.132 | 1028.9 | 0.5558 |
| 8 | 0.000 | | 0.5067 | 0.134 | 1038.4 | 0.5067 |
| 9 | 0.000 | | 0.4629 | 0.142 | 1077.4 | 0.4629 |
| 10 | 0.000 | | 0.4248 | 0.143 | 1082.4 | 0.4248 |
| 11 | 0.000 | | 0.3921 | 0.143 | 1082.4 | 0.3921 |
| 12 | 0.000 | | 0.3637 | 0.143 | 1082.4 | 0.3637 |
| 13 | 0.000 | | 0.3391 | 0.142 | 1077.4 | 0.3391 |
| 14 | 0.000 | | 0.3178 | 0.140 | 1067.5 | 0.3178 |
| 15 | 0.000 | | 0.2993 | 0.136 | 1048.0 | 0.2993 |
| 16 | 0.000 | | 0.2834 | 0.130 | 1019.5 | 0.2834 |
| 17 | 0.000 | | 0.2697 | 0.121 | 978.2 | 0.2697 |
| 18 | 0.000 | | 0.2583 | 0.106 | 913.4 | 0.2583 |
| 19 | 0.000 | | 0.2490 | 0.097 | 876.8 | 0.2490 |
| 20 | 0.000 | | 0.2409 | 0.089 | 845.5 | 0.2409 |
| 21 | 0.000 | | 0.2339 | 0.081 | 815.4 | 0.2339 |
| 22 | 0.000 | | 0.2282 | 0.068 | 768.9 | 0.2282 |
| 23 | 0.000 | | 0.2236 | 0.054 | 721.7 | 0.2236 |
| 24 | 0.000 | | 0.2209 | 0.021 | 621.2 | 0.2209 |
| 25 | 0.000 | | 0.2197 | 0.013 | 598.7 | 0.2197 |

Table 4-122. LS1 Burnup and TH Feedback Parameters Assembly H2

| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------|-----------|----------------------|--------------------------------|-----------|----------------------|
| | Burnup | Fuel | Mod. Dens. | Burnup | Fuel | Mod. Dens. |
| | (GWd/MTU) | Temp. (K) | (g/cm ³) | (GWd/MTU) | Temp. (K) | (g/cm ³) |
| | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 0.000 | | 0.7396 | 0.020 | 625.2 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 0.074 | 831.1 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 0.102 | 959.5 | 0.7396 |
| 4 | 0.000 | Data | 0.7085 | 0.119 | 969.3 | 0.7085 |
| 5 | 0.000 | Not | 0.6625 | 0.128 | 1010.2 | 0.6625 |
| 6 | 0.000 | Required | 0.6090 | 0.131 | 1024.2 | 0.609 |
| 7 | 0.000 | | 0.5552 | 0.132 | 1028.9 | 0.5552 |
| 8 | 0.000 | | 0.5058 | 0.135 | 1043.2 | 0.5058 |
| 9 | 0.000 | | 0.4617 | 0.143 | 1082.4 | 0.4617 |
| 10 | 0.000 | | 0.4234 | 0.145 | 1092.5 | 0.4234 |
| 11 | 0.000 | | 0.3904 | 0.145 | 1092.5 | 0.3904 |
| 12 | 0.000 | | 0.3617 | 0.146 | 1097.5 | 0.3617 |
| 13 | 0.000 | | 0.3367 | 0.146 | 1097.5 | 0.3367 |
| 14 | 0.000 | | 0.3150 | 0.145 | 1092.5 | 0.3150 |
| 15 | 0.000 | | 0.2962 | 0.141 | 1072.5 | 0.2962 |
| 16 | 0.000 | | 0.2799 | 0.135 | 1043.2 | 0.2799 |
| 17 | 0.000 | | 0.2661 | 0.125 | 996.4 | 0.2661 |
| 18 | 0.000 | | 0.2546 | 0.110 | 930.3 | 0.2546 |
| 19 | 0.000 | | 0.2452 | 0.100 | 888.8 | 0.2452 |
| 20 | 0.000 | | 0.2371 | 0.091 | 853.2 | 0.2371 |
| 21 | 0.000 | | 0.2302 | 0.083 | 822.8 | 0.2302 |
| 22 | 0.000 | | 0.2245 | 0.069 | 772.3 | 0.2245 |
| 23 | 0.000 | | 0.2199 | 0.055 | 725.0 | 0.2199 |
| 24 | 0.000 | | 0.2171 | 0.021 | 621.2 | 0.2171 |
| 25 | 0.000 | | 0.2160 | 0.014 | 601.5 | 0.2160 |

Table 4-123. LS1 Burnup and TH Feedback Parameters Assembly H3

| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 0.000 | | 0.7396 | 0.017 | 615.1 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 0.064 | 789.1 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 0.089 | 897.7 | 0.7396 |
| 4 | 0.000 | Data | 0.7223 | 0.104 | 905.2 | 0.7223 |
| 5 | 0.000 | Not | 0.6865 | 0.113 | 943.1 | 0.6865 |
| 6 | 0.000 | Required | 0.6430 | 0.117 | 960.5 | 0.643 |
| 7 | 0.000 | | 0.5963 | 0.119 | 969.3 | 0.5963 |
| 8 | 0.000 | | 0.5495 | 0.122 | 982.7 | 0.5495 |
| 9 | 0.000 | | 0.5055 | 0.129 | 1014.8 | 0.5055 |
| 10 | 0.000 | | 0.4656 | 0.130 | 1019.5 | 0.4656 |
| 11 | 0.000 | | 0.4316 | 0.128 | 1010.2 | 0.4316 |
| 12 | 0.000 | | 0.4025 | 0.126 | 1000.9 | 0.4025 |
| 13 | 0.000 | | 0.3774 | 0.123 | 987.3 | 0.3774 |
| 14 | 0.000 | | 0.3556 | 0.119 | 969.3 | 0.3556 |
| 15 | 0.000 | | 0.3368 | 0.114 | 947.4 | 0.3368 |
| 16 | 0.000 | | 0.3206 | 0.109 | 926.0 | 0.3206 |
| 17 | 0.000 | | 0.3067 | 0.101 | 892.9 | 0.3067 |
| 18 | 0.000 | | 0.2951 | 0.088 | 841.7 | 0.2951 |
| 19 | 0.000 | | 0.2855 | 0.080 | 811.7 | 0.2855 |
| 20 | 0.000 | | 0.2773 | 0.073 | 786.4 | 0.2773 |
| 21 | 0.000 | | 0.2701 | 0.067 | 765.4 | 0.2701 |
| 22 | 0.000 | | 0.2641 | 0.056 | 728.3 | 0.2641 |
| 23 | 0.000 | | 0.2593 | 0.044 | 689.8 | 0.2593 |
| 24 | 0.000 | | 0.2566 | 0.017 | 609.9 | 0.2566 |
| 25 | 0.000 | | 0.2554 | 0.010 | 590.4 | 0.2554 |

Table 4-124. LS1 Burnup and TH Feedback Parameters Assembly H4

| Node | Statepoint 10 (BOC Cy 8) | | | Statepoint 11 (3.67 EFPD Cy 8) | | |
|------|--------------------------|-------------------|------------------------------------|--------------------------------|-------------------|------------------------------------|
| | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) | Burnup (GWd/MTU) | Fuel Temp. (K) | Mod. Dens. (g/cm ³) |
| No. | 0.00 Cy 8 | 0.00 Cy 8 | 0.00 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 | 3.67 Cy 8 |
| 1 | 0.000 | | 0.7396 | 0.015 | 608.5 | 0.7396 |
| 2 | 0.000 | | 0.7396 | 0.057 | 760.8 | 0.7396 |
| 3 | 0.000 | | 0.7396 | 0.079 | 852.8 | 0.7396 |
| 4 | 0.000 | Data | 0.7355 | 0.093 | 861.0 | 0.7355 |
| 5 | 0.000 | Not | 0.7070 | 0.101 | 892.9 | 0.707 |
| 6 | 0.000 | Required | 0.6701 | 0.106 | 913.4 | 0.6701 |
| 7 | 0.000 | | 0.6282 | 0.108 | 921.8 | 0.6282 |
| 8 | 0.000 | | 0.5841 | 0.111 | 934.5 | 0.5841 |
| 9 | 0.000 | | 0.5405 | 0.118 | 964.9 | 0.5405 |
| 10 | 0.000 | | 0.5001 | 0.119 | 969.3 | 0.5001 |
| 11 | 0.000 | | 0.4646 | 0.117 | 960.5 | 0.4646 |
| 12 | 0.000 | | 0.4345 | 0.115 | 951.8 | 0.4345 |
| 13 | 0.000 | | 0.4086 | 0.112 | 938.8 | 0.4086 |
| 14 | 0.000 | | 0.3861 | 0.108 | 921.8 | 0.3861 |
| 15 | 0.000 | | 0.3664 | 0.104 | 905.2 | 0.3664 |
| 16 | 0.000 | | 0.3494 | 0.099 | 884.8 | 0.3494 |
| 17 | 0.000 | | 0.3348 | 0.091 | 853.2 | 0.3348 |
| 18 | 0.000 | | 0.3227 | 0.080 | 811.7 | 0.3227 |
| 19 | 0.000 | | 0.3125 | 0.073 | 786.4 | 0.3125 |
| 20 | 0.000 | | 0.3038 | 0.067 | 765.4 | 0.3038 |
| 21 | 0.000 | | 0.2962 | 0.061 | 744.9 | 0.2962 |
| 22 | 0.000 | | 0.2898 | 0.051 | 712.0 | 0.2898 |
| 23 | 0.000 | | 0.2848 | 0.040 | 677.4 | 0.2848 |
| 24 | 0.000 | | 0.2819 | 0.015 | 604.3 | 0.2819 |
| 25 | 0.000 | | 0.2807 | 0.009 | 587.7 | 0.2807 |