



Tom Simril
Vice President
Catawba Nuclear Station

Duke Energy
CN01VP | 4800 Concord Road
York, SC 29745

o: 803.701.3340
f: 803.701.3221
tom.simril@duke-energy.com

RA-21-0265

October 12, 2021

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Duke Energy Carolinas, LLC (Duke Energy)
Catawba Nuclear Station, Unit 1
Facility Operating License Number NPF-35
Docket Number 50-413
Core Operating Limits Report (COLR) for Unit 1 Cycle 27 Reload Core

Pursuant to Catawba Technical Specification 5.6.5.d, enclosed is the subject COLR. This COLR revision is being submitted to update the limits of the Catawba Unit 1 Cycle 27 reload core.

This letter, the enclosed COLR, and the attached COLR Appendix A, do not contain any regulatory commitments.

Please direct any questions or concerns to Sherry Andrews, Regulatory Affairs, at (803) 701-3424.

Sincerely,

A handwritten signature in black ink that reads "Tom Simril". The signature is fluid and cursive, with a long horizontal stroke at the beginning.

Tom Simril
Vice President, Catawba Nuclear Station

Enclosure: Catawba Unit 1, Cycle 27, Revision 0, Core Operating Limits Report

Attachment: Catawba Unit 1, Cycle 27, Revision 0, Core Operating Limits Report, Appendix A, Power Distribution Monitoring Factors

U.S. Nuclear Regulatory Commission
RA-21-0265
October 12, 2021
Page | 2

xc (with enclosure; with attachment):

L. Dudes, Region II Administrator
U.S. Nuclear Regulatory Commission
Marquis One Tower
245 Peachtree Center Avenue NE, Suite 1200
Atlanta, GA 30303-1257

J. D. Austin, Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Catawba Nuclear Station

Z. Stone, Project Manager
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Mailstop O-8B1A
Rockville, MD 20852

Enclosure

Catawba Unit 1, Cycle 27, Revision 0, Core Operating Limits Report



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Document Number :	CNEI-0400-379	
Document Revision Number :	000	
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Document Title :	Catawba 1 Cycle 27 Core Operating Limits Report	
Young, Elizabeth A.	Originator	9/20/2021
Shayotovich, Andrew	Verifier	9/20/2021
Hight, Randy A	Safety Analysis Verifier	9/20/2021
Hawes, Mark W	Site Impact Review	9/20/2021
Robinson, Duncan	Approver	9/21/2021
Notes :		

Catawba 1 Cycle 27
Core Operating Limits Report
Revision 0

September 2021

Reference: CNC-1553.05-00-0711, Rev. 0
Reload 50.59 #: 02395995



QA Condition 1

The information presented in this report has been prepared and issued in accordance with Catawba Technical Specification 5.6.5.

Catawba 1 Cycle 27 Core Operating Limits Report

Implementation Instructions for Revision 0

Revision Description and CR Tracking

Revision 0 of the Catawba 1 Cycle 27 COLR contains limits specific to the reload core. There is no CR associated with this revision.

Implementation Schedule

The Catawba 1 Cycle 27 COLR requires the reload 50.59 (AR #02395995) be approved prior to implementation and fuel loading.

Revision 0 may become effective any time during NO MODE between cycles 26 and 27 but must become effective prior to entering MODE 6 which starts cycle 27. The Catawba 1 Cycle 27 COLR will cease to be effective during NO MODE between cycles 27 and 28.

Data Files to be Implemented

No data files are transmitted as part of this document.

Additional Information

CDR was performed by Safety Analysis for COLR Sections 1.1, 2.1, 2.9 – 2.11, 2.13, and 2.16 – 2.18.

CNS Reactor Engineering performed site inspection in accordance with AD-NF-ALL-0807 and AD-NF-NGO-0214.

Catawba 1 Cycle 27 Core Operating Limits Report**REVISION LOG**

<u>Revision</u>	<u>Effective Date</u>	<u>Pages Affected</u>	<u>COLR</u>
0	September 2021	1-31, Appendix A*	C1C27 COLR, Rev. 0

* Appendix A contains power distribution monitoring factors used in Technical Specification Surveillance and is not uploaded as part of the EI body. However, Appendix A is uploaded into the document management system, for ease of transmittal to the NRC.

Catawba 1 Cycle 27 Core Operating Limits Report

1.0 Core Operating Limits Report

This Core Operating Limits Report (COLR) has been prepared in accordance with requirements of Technical Specification 5.6.5. Technical Specifications that reference this report are listed below along with the NRC approved analytical methods used to develop and/or determine COLR parameters identified in Technical Specifications.

TS Section	Technical Specifications	COLR Parameter	COLR Section	NRC Approved Methodology (Section 1.1 Number)
2.1.1	Reactor Core Safety Limits	RCS Temperature and Pressure Safety Limits	2.1	6, 7, 8, 9, 10, 12, 15, 16, 19, 20
3.1.1	Shutdown Margin	Shutdown Margin	2.2	6, 7, 8, 12, 14, 15, 16, 19, 20
3.1.3	Moderator Temperature Coefficient	MTC	2.3	6, 7, 8, 14, 16, 18
3.1.4	Rod Group Alignment Limits	Shutdown Margin	2.2	6, 7, 8, 12, 14, 15, 16, 19, 20
3.1.5	Shutdown Bank Insertion Limit	Shutdown Margin Rod Insertion Limits	2.2 2.4	2, 4, 6, 7, 8, 9, 10 12, 14, 15, 16, 19, 20
3.1.6	Control Bank Insertion Limit	Shutdown Margin Rod Insertion Limits	2.2 2.5	2, 4, 6, 7, 8, 9, 10 12, 14, 15, 16, 19, 20
3.1.8	Physics Tests Exceptions	Shutdown Margin	2.2	6, 7, 8, 12, 14, 15, 16, 19, 20
3.2.1	Heat Flux Hot Channel Factor	F _Q AFD OTΔT Penalty Factors	2.6 2.8 2.9 2.6	2, 4, 6, 7, 8, 9, 10, 12, 15, 16, 19, 20
3.2.2	Nuclear Enthalpy Rise Hot Channel Factor	FΔH Penalty Factors	2.7 2.7	2, 4, 6, 7, 8, 9, 10 12, 15, 16, 19, 20
3.2.3	Axial Flux Difference	AFD	2.8	2, 4, 6, 7, 8, 15, 16
3.3.1	Reactor Trip System Instrumentation	OTΔT OPΔT	2.9 2.9	6, 7, 8, 9, 10, 12 15, 16, 19, 20
3.3.9	Boron Dilution Mitigation System	Reactor Makeup Water Flow Rate	2.10	6, 7, 8, 14, 16
3.4.1	RCS Pressure, Temperature and Flow limits for DNB	RCS Pressure, Temperature and Flow	2.11	6, 7, 8, 9, 10, 12, 19, 20
3.5.1	Accumulators	Max and Min Boron Conc.	2.12	6, 7, 8, 14, 16
3.5.4	Refueling Water Storage Tank	Max and Min Boron Conc.	2.13	6, 7, 8, 14, 16
3.7.15	Spent Fuel Pool Boron Concentration	Min Boron Concentration	2.14	6, 7, 8, 14, 16
3.9.1	Refueling Operations - Boron Concentration	Min Boron Concentration	2.15	6, 7, 8, 14, 16
5.6.5	Core Operating Limits Report (COLR)	Analytical Methods	1.1	None

The Selected Licensee Commitments that reference this report are listed below

SLC Section	Selected Licensee Commitment	COLR Parameter	COLR Section	NRC Approved Methodology (Section 1.1 Number)
16.7-9	Standby Shutdown System	Standby Makeup Pump Water Supply	2.16	6, 7, 8, 14, 16
16.9-11	Boration Systems – Borated Water Source – Shutdown	Borated Water Volume and Conc. for BAT/RWST	2.17	6, 7, 8, 14, 16
16.9-12	Boration Systems – Borated Water Source – Operating	Borated Water Volume and Conc. for BAT/RWST	2.18	6, 7, 8, 14, 16

Catawba 1 Cycle 27 Core Operating Limits Report

1.1 Analytical Methods

Analytical methods used to determine core operating limits for parameters identified in Technical Specifications and previously reviewed and approved by the NRC as specified in Technical Specification 5.6.5 are as follows.

1. WCAP-9272-P-A, "Westinghouse Reload Safety Evaluation Methodology," (W Proprietary).

Revision 0

Report Date: July 1985

Not Used

2. WCAP-10054-P-A, "Westinghouse Small Break ECCS Evaluation Model using the NOTRUMP Code," (W Proprietary).

Revision 0

Report Date: August 1985

Addendum 2, "Addendum to the Westinghouse Small Break ECCS Evaluation Model Using the NOTRUMP Code: Safety Injection into the Broken Loop and COSI Condensation Model," (W Proprietary). (Referenced in Duke Letter DPC-06-101)

Revision 1

July 1997

3. WCAP-10266-P-A, "The 1981 Version of Westinghouse Evaluation Model Using BASH Code," (W Proprietary).

Revision 2

Report Date: March 1987

Not Used

4. WCAP-12945-P-A, Volume 1 and Volumes 2-5, "Code Qualification Document for Best-Estimate Loss of Coolant Analysis," (W Proprietary).

Revision: Volume 1 (Revision 2) and Volumes 2-5 (Revision 1)

Report Date: March 1998

5. BAW-10168P-A, "B&W Loss-of-Coolant Accident Evaluation Model for Recirculating Steam Generator Plants," (B&W Proprietary).

Revision 1

SER Date: January 22, 1991

Revision 2

SER Dates: August 22, 1996 and November 26, 1996

Revision 3

SER Date: June 15, 1994

Not Used

Catawba 1 Cycle 27 Core Operating Limits Report

1.1 Analytical Methods (continued)

6. DPC-NE-3000-PA, "Thermal-Hydraulic Transient Analysis Methodology," (Duke Energy Proprietary).

Revision 5a

Report Date: October 2012

7. DPC-NE-3001-PA, "Multidimensional Reactor Transients and Safety Analysis Physics Parameter Methodology," (Duke Energy Proprietary).

Revision 1

Report Date: March 2015

8. DPC-NE-3002-A, "UFSAR Chapter 15 System Transient Analysis Methodology".

Revision 4c

Report Date: February 2019

9. DPC-NE-2004P-A, "Duke Power Company McGuire and Catawba Nuclear Stations Core Thermal-Hydraulic Methodology using VIPRE-01," (Duke Energy Proprietary).

Revision 2a

Report Date: December 2008

10. DPC-NE-2005P-A, "Thermal Hydraulic Statistical Core Design Methodology," (Duke Energy Proprietary).

Revision 6

Report Date: September 2020

11. DPC-NE-2008P-A, "Fuel Mechanical Reload Analysis Methodology Using TACO3," (Duke Energy Proprietary).

Revision 0

Report Date: April 1995

Not Used

12. DPC-NE-2009-P-A, "Westinghouse Fuel Transition Report," (Duke Energy Proprietary).

Revision 3c

Report Date: March 2017

13. DPC-NE-1004-A, "Nuclear Design Methodology Using CASMO-3/SIMULATE-3P."

Revision 1a

Report Date: January 2009

Not Used

Catawba 1 Cycle 27 Core Operating Limits Report

1.1 Analytical Methods (continued)

14. DPC-NF-2010-A, "Nuclear Physics Methodology for Reload Design."

Revision 2a
Report Date: December 2009
15. DPC-NE-2011-PA, "Nuclear Design Methodology Report for Core Operating Limits of Westinghouse Reactors," (Duke Energy Proprietary).

Revision 1a
Report Date: June 2009
16. DPC-NE-1005-PA, "Nuclear Design Methodology Using CASMO-4 / SIMULATE-3 MOX," (Duke Energy Proprietary).

Revision 1
Report Date: November 2008
17. BAW-10231P-A, "COPERNIC Fuel Rod Design Computer Code" (Framatome ANP Proprietary)

Revision 1
SER Date: January 14, 2004
Not Used
18. DPC-NE-1007-P-A, "Conditional Exemption of the EOC MTC Measurement Methodology," (Duke Energy and W Proprietary)

Revision 0
Report Date: April 2015
19. WCAP-12610-P-A, "VANTAGE+ Fuel Assembly Reference Core Report," (W Proprietary).

Revision 0
Report Date: April 1995
20. WCAP-12610-P-A & CENPD-404-P-A, Addendum 1-A, "Optimized ZIRLO™," (W Proprietary).

Revision 0
Report Date: July 2006

Catawba 1 Cycle 27 Core Operating Limits Report

2.0 Operating Limits

Cycle-specific parameter limits for specifications listed in Section 1.0 are presented in the following subsections. These limits have been developed using NRC approved methodologies specified in Section 1.1.

2.1 Reactor Core Safety Limits (TS 2.1.1)

Reactor Core Safety Limits are shown in Figure 1.

2.2 Shutdown Margin - SDM (TS 3.1.1, TS 3.1.4, TS 3.1.5, TS 3.1.6, TS 3.1.8)

2.2.1 For TS 3.1.1, SDM shall be $\geq 1.3\% \Delta K/K$ in MODE 2 with $K_{\text{eff}} < 1.0$ and in MODES 3 and 4.

2.2.2 For TS 3.1.1, SDM shall be $\geq 1.0\% \Delta K/K$ in MODE 5.

2.2.3 For TS 3.1.4, SDM shall be $\geq 1.3\% \Delta K/K$ in MODE 1 and MODE 2.

2.2.4 For TS 3.1.5, SDM shall be $\geq 1.3\% \Delta K/K$ in MODE 1 and MODE 2 with any control bank not fully inserted.

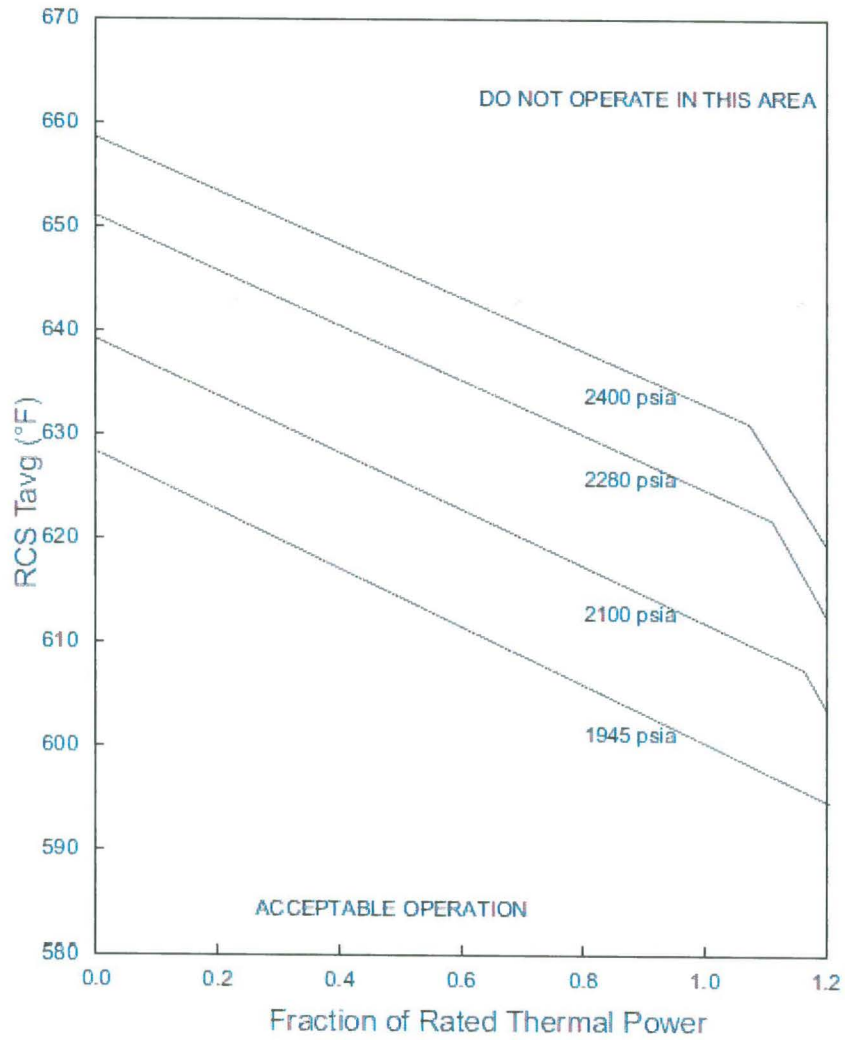
2.2.5 For TS 3.1.6, SDM shall be $\geq 1.3\% \Delta K/K$ in MODE 1 and MODE 2 with $K_{\text{eff}} \geq 1.0$.

2.2.6 For TS 3.1.8, SDM shall be $\geq 1.3\% \Delta K/K$ in MODE 2 during PHYSICS TESTS.

Catawba 1 Cycle 27 Core Operating Limits Report

Figure 1

Reactor Core Safety Limits (Four Loops in Operation)



Catawba 1 Cycle 27 Core Operating Limits Report

2.3 Moderator Temperature Coefficient - MTC (TS 3.1.3)

2.3.1 Moderator Temperature Coefficient (MTC) Limits are:

MTC shall be less positive than the upper limits shown in Figure 2.

BOC, ARO, HZP MTC shall be less positive than $0.7E-04 \Delta K/K/^{\circ}F$.

EOC, ARO, RTP MTC shall be less negative than the $-4.3E-04 \Delta K/K/^{\circ}F$ lower MTC limit.

2.3.2 300 ppm MTC Surveillance Limit is:

Measured 300 ppm ARO, equilibrium RTP MTC shall be less negative than or equal to $-3.65E-04 \Delta K/K/^{\circ}F$.

2.3.3 The Revised Predicted near-EOC 300 ppm ARO RTP MTC shall be calculated using the procedure contained in DPC-NE-1007-PA.

If the Revised Predicted MTC is less negative than or equal to the 300 ppm SR 3.1.3.2 Surveillance Limit, and all benchmark data contained in the surveillance procedure is satisfied, then an MTC measurement in accordance with SR 3.1.3.2 is not required to be performed.

2.3.4 60 ppm MTC Surveillance Limit is:

Measured 60 ppm ARO, equilibrium RTP MTC shall be less negative than or equal to $-4.125E-04 \Delta K/K/^{\circ}F$.

Where:

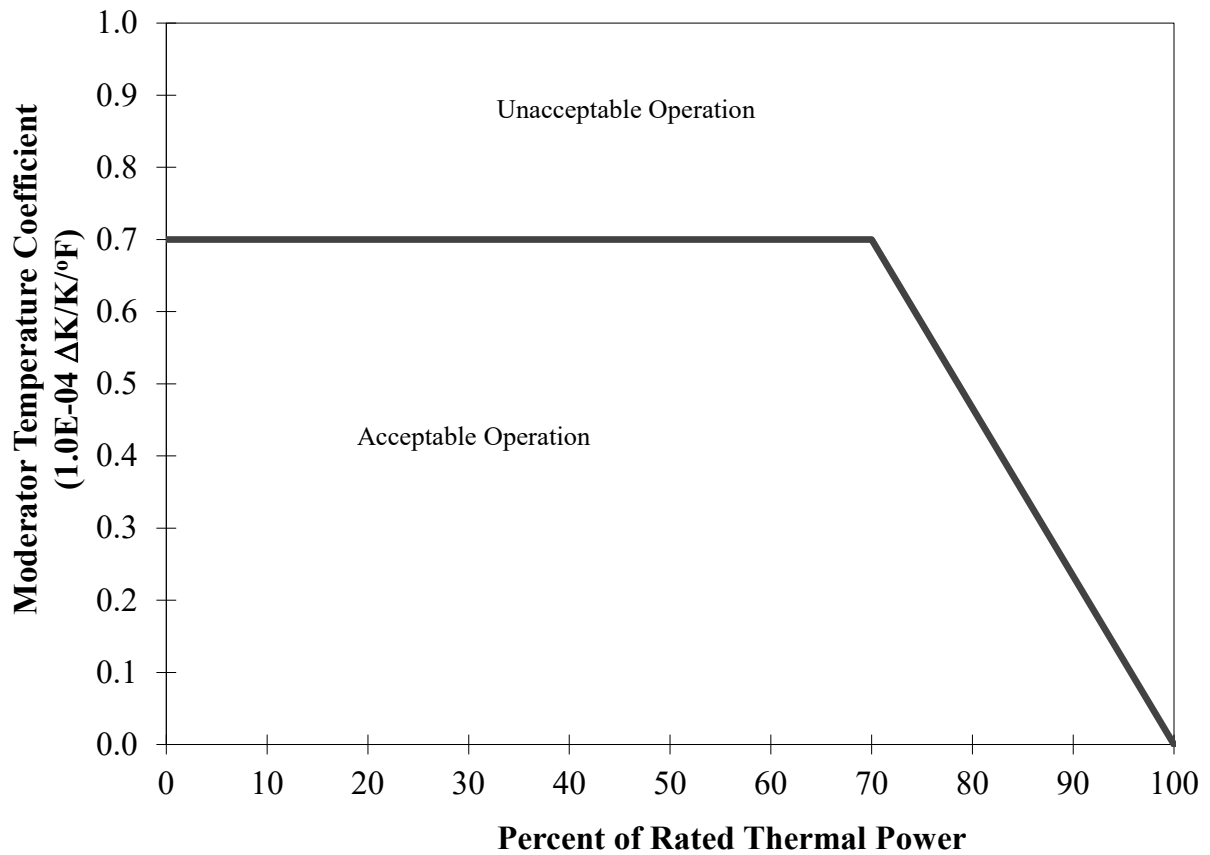
- BOC = Beginning of Cycle (burnup corresponding to most positive MTC)
- EOC = End of Cycle
- ARO = All Rods Out
- HZP = Hot Zero Power
- RTP = Rated Thermal Power
- ppm = Parts per million (Boron)

2.4 Shutdown Bank Insertion Limit (TS 3.1.5)

2.4.1 Each shutdown bank shall be withdrawn to at least 222 steps. Shutdown banks are withdrawn in sequence and with no overlap.

2.5 Control Bank Insertion Limits (TS 3.1.6)

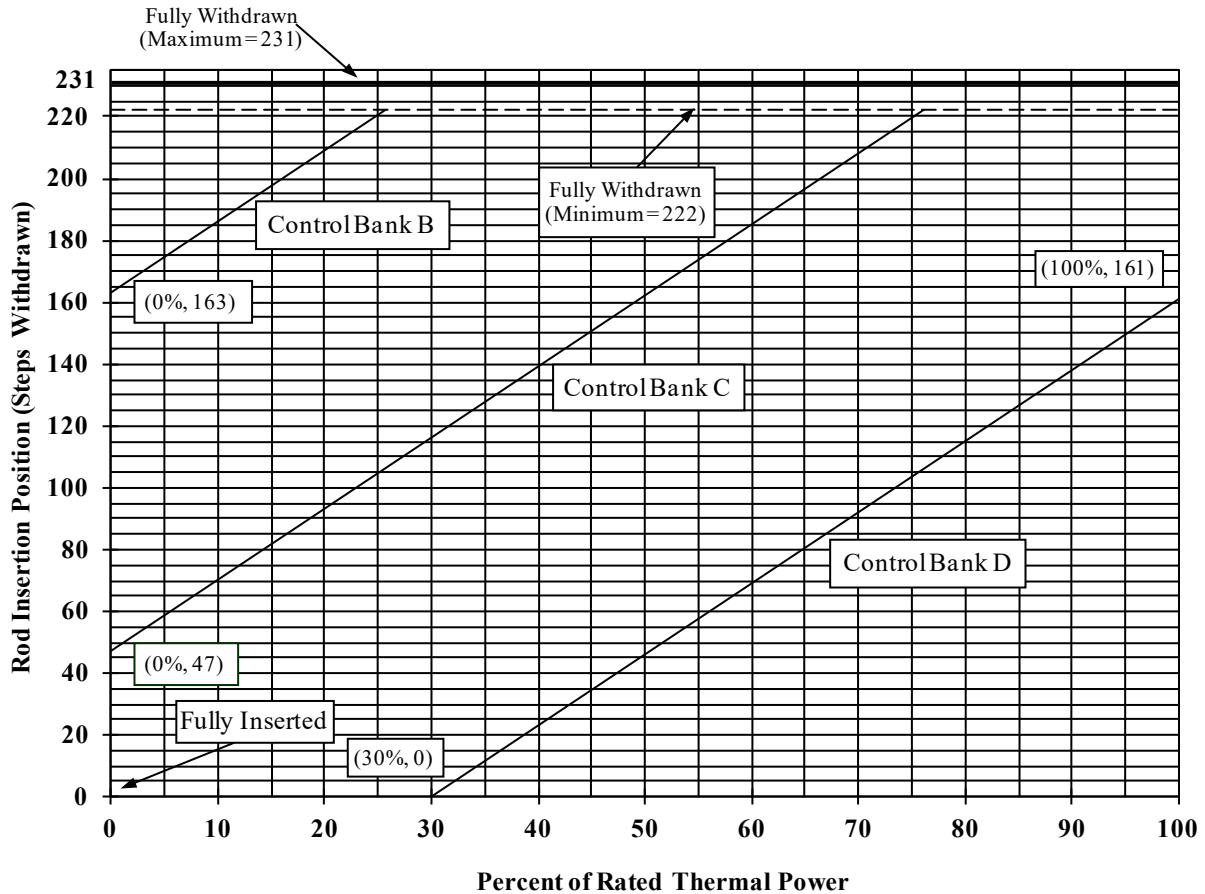
2.5.1 Control banks shall be within the insertion, sequence, and overlap limits shown in Figure 3. Specific control bank withdrawal and overlap limits as a function of the fully withdrawn position are shown in Table 1.

Catawba 1 Cycle 27 Core Operating Limits Report**Figure 2****Moderator Temperature Coefficient Upper Limit Versus Power Level**

NOTE: Compliance with Technical Specification 3.1.3 may require rod withdrawal limits. Refer to the Unit 1 ROD manual for details.

Catawba 1 Cycle 27 Core Operating Limits Report

Figure 3
Control Bank Insertion Limits Versus Percent Rated Thermal Power



The Rod Insertion Limits (RIL) for Control Bank D (CD), Control Bank C (CC), and Control Bank B (CB) can be calculated by:

$$\text{Bank CD RIL} = 2.3(P) - 69 \quad \{30 \leq P \leq 100\}$$

$$\text{Bank CC RIL} = 2.3(P) + 47 \quad \{0 \leq P \leq 76.1\} \text{ for CC RIL} = 222 \quad \{76.1 < P \leq 100\}$$

$$\text{Bank CB RIL} = 2.3(P) + 163 \quad \{0 \leq P \leq 25.7\} \text{ for CB RIL} = 222 \quad \{25.7 < P \leq 100\}$$

where $P = \% \text{ of Rated Thermal Power}$

NOTE: Compliance with Technical Specification 3.1.3 may require rod withdrawal limits. Refer to the Unit 1 ROD manual for details.

Catawba 1 Cycle 27 Core Operating Limits Report

Table 1

Control Bank Withdrawal Sequence Equation			
Control Bank A	Control Bank B	Control Bank C	Control Bank D
0 Start	0	0	0
116	0 Start	0	0
CBA Stop	CBA - 116	0	0
CBA	116	0 Start	0
CBA	CBB Stop	CBB - 116	0
CBA	CBB	116	0 Start
CBA	CBB	CBC Stop	CBC - 116

Where:

CBA = Fully withdrawn position of Control Bank A

CBB = Fully withdrawn position of Control Bank B

CBC = Fully withdrawn position of Control Bank C

Allowed Control Bank Fully Withdrawn Positions Range from 223 Steps to 231 Steps for frequent RCCA Reposition Required per CNEI-0400-091, Rev. 7, "RCCA Axial Repositioning Schedule for Catawba Nuclear Station."

Catawba 1 Cycle 27 Core Operating Limits Report

2.6 Heat Flux Hot Channel Factor - $F_Q(X,Y,Z)$ (TS 3.2.1)

2.6.1 $F_Q(X,Y,Z)$ steady-state limits are defined by the following relationships:

$$F_Q^{RTP} * K(Z)/P \quad \text{for } P > 0.5$$

$$F_Q^{RTP} * K(Z)/0.5 \quad \text{for } P \leq 0.5$$

where,

$$P = \frac{\text{Thermal Power}}{\text{Rated Thermal Power}}$$

Note: Measured $F_Q(X,Y,Z)$ shall be increased by 3% to account for manufacturing tolerances and 5% to account for measurement uncertainty when comparing against the LCO limits. The manufacturing tolerance and measurement uncertainty are implicitly included in the F_Q surveillance limits as defined in COLR Sections 2.6.5 and 2.6.6.

2.6.2 $F_Q^{RTP} = 2.70 \times K(\text{BU})$

2.6.3 $K(Z)$ is the normalized $F_Q(X,Y,Z)$ as a function of core height. $K(Z)$ for Westinghouse RFA fuel is provided in Figure 4.

2.6.4 $K(\text{BU})$ is the normalized $F_Q(X,Y,Z)$ as a function of burnup. F_Q^{RTP} with the $K(\text{BU})$ penalty for Westinghouse RFA fuel is analytically confirmed in cycle-specific reload calculations. $K(\text{BU})$ is set to 1.0 at all burnups.

The following parameters are required for core monitoring per the Surveillance Requirements of Technical Specification 3.2.1:

2.6.5 $[F_Q^L(X,Y,Z)]^{OP} = \frac{F_Q^D(X,Y,Z) * M_Q(X,Y,Z)}{UMT * MT * TILT}$

where:

$[F_Q^L(X,Y,Z)]^{OP}$ = Cycle dependent maximum allowable design peaking factor that ensures $F_Q(X,Y,Z)$ LOCA limit is not exceeded for operation within AFD, RIL, and QPTR limits. $F_Q^L(X,Y,Z)^{OP}$ includes allowances for calculation and measurement uncertainties.

$F_Q^D(X,Y,Z)$ = Design power distribution for F_Q . $F_Q^D(X,Y,Z)$ is provided in Appendix Table A-1 for normal operating conditions and in

Catawba 1 Cycle 27 Core Operating Limits Report

Appendix Table A-4 for power escalation testing during initial startup operation.

$M_Q(X,Y,Z)$ = Margin remaining in core location X,Y,Z to the LOCA limit in the transient power distribution. $M_Q(X,Y,Z)$ is provided in Appendix Table A-1 for normal operating conditions and in Appendix Table A-4 for power escalation testing during initial startup operation.

UMT = Total Peak Measurement Uncertainty. (UMT = 1.05)

MT = Engineering Hot Channel Factor. (MT = 1.03)

TILT = Peaking penalty to account for allowable quadrant power tilt ratio of 1.02. (TILT = 1.035)

$$2.6.6 \quad [F_Q^L(X,Y,Z)]^{RPS} = \frac{F_Q^D(X,Y,Z) * M_C(X,Y,Z)}{UMT * MT * TILT}$$

where:

$[F_Q^L(X,Y,Z)]^{RPS}$ = Cycle dependent maximum allowable design peaking factor that ensures $F_Q(X,Y,Z)$ Centerline Fuel Melt (CFM) limit is not exceeded for operation within AFD, RIL, and QPTR limits. $[F_Q^L(X,Y,Z)]^{RPS}$ includes allowances for calculation and measurement uncertainties.

$F_Q^D(X,Y,Z)$ = Defined in Section 2.6.5.

$M_C(X,Y,Z)$ = Margin remaining to the CFM limit in core location X,Y,Z from the transient power distribution. $M_C(X,Y,Z)$ is provided in Appendix Table A-2 for normal operating conditions and in Appendix Table A-5 for power escalation testing during initial startup operations.

UMT = Defined in Section 2.6.5.

MT = Defined in Section 2.6.5.

TILT = Defined in Section 2.6.5.

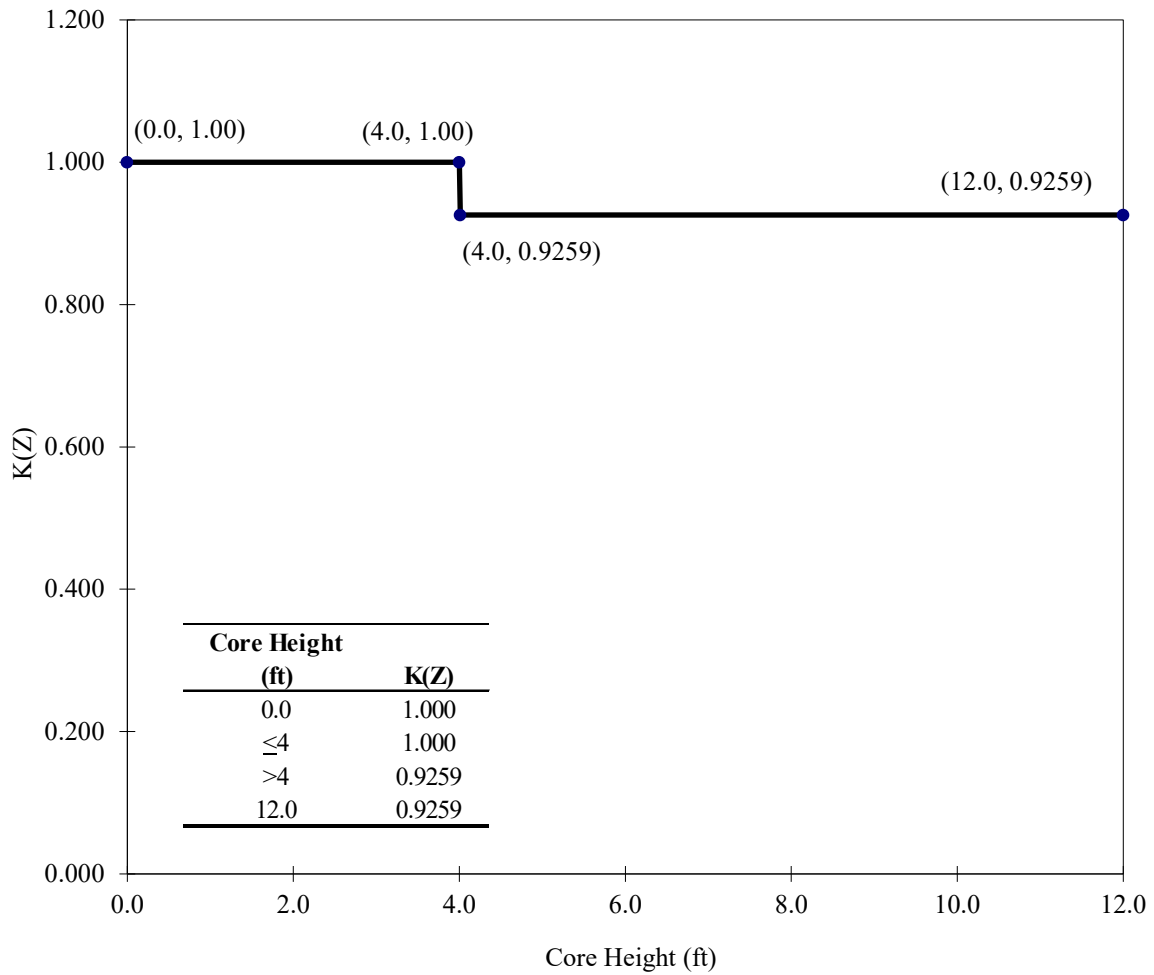
Catawba 1 Cycle 27 Core Operating Limits Report

2.6.7 $KSLOPE = 0.0725$

where:

$KSLOPE =$ Adjustment to K_1 value from $OT\Delta T$ trip setpoint required to compensate for each 1% $F_Q^M(X,Y,Z)$ exceeds $F_Q^L(X,Y,Z)^{RPS}$.

2.6.8 $F_Q(X,Y,Z)$ Penalty Factors for Technical Specification Surveillances 3.2.1.2 and 3.2.1.3 are provided in Table 2.

Catawba 1 Cycle 27 Core Operating Limits Report**Figure 4** **$K(Z)$, Normalized $F_Q(X,Y,Z)$ as a Function of Core Height
for RFA Fuel**

Catawba 1 Cycle 27 Core Operating Limits Report

Table 2

F_Q(X,Y,Z) and F_{ΔH}(X,Y) Penalty Factors For Tech Spec Surveillances 3.2.1.2, 3.2.1.3 and 3.2.2.2

Burnup (EFPD)	F _Q (X,Y,Z) Penalty Factor(%)	F _{ΔH} (X,Y) Penalty Factor (%)
4	2.00	2.00
12	2.00	2.00
25	2.46	2.00
50	2.00	2.00
75	2.00	2.00
100	2.00	2.00
125	2.00	2.00
150	2.00	2.00
175	2.00	2.00
200	2.00	2.00
225	2.00	2.00
250	2.00	2.00
275	2.00	2.00
300	2.00	2.00
325	2.00	2.00
350	2.00	2.00
375	2.00	2.00
400	2.00	2.00
425	2.00	2.00
450	2.00	2.00
465	2.00	2.00
484	2.00	2.00
488	2.00	2.00
503	2.00	2.00
513	2.00	2.00
523	2.00	2.00

Note: Linear interpolation is adequate for intermediate cycle burnups. All cycle burnups outside the range of the table shall use a 2% penalty factor for both F_Q(X,Y,Z) and F_{ΔH}(X,Y) for compliance with Tech Spec Surveillances 3.2.1.2, 3.2.1.3 and 3.2.2.2.

Catawba 1 Cycle 27 Core Operating Limits Report

2.7 Nuclear Enthalpy Rise Hot Channel Factor - $F_{\Delta H}(X,Y)$ (TS 3.2.2)

$F_{\Delta H}$ steady-state limits referred to in Technical Specification 3.2.2 are defined by the following relationship.

$$2.7.1 \quad [F_{\Delta H}^L(X, Y)]^{LCO} = \text{MARP}(X, Y) * \left[1.0 + \frac{1}{\text{RRH}} * (1.0 - P) \right]$$

where:

$[F_{\Delta H}^L(X, Y)]^{LCO}$ is the steady-state, maximum allowed radial peak and includes allowances for calculation/measurement uncertainty.

$\text{MARP}(X, Y) =$ Cycle-specific operating limit Maximum Allowable Radial Peaks. $\text{MARP}(X, Y)$ radial peaking limits are provided in Table 3.

$$P = \frac{\text{Thermal Power}}{\text{Rated Thermal Power}}$$

$\text{RRH} =$ Thermal Power reduction required to compensate for each 1% measured radial peak, $F_{\Delta H}^M(X, Y)$, exceeds the limit.

$$(\text{RRH} = 3.34, 0.0 < P \leq 1.0)$$

The following parameters are required for core monitoring per surveillance requirements of Technical Specification 3.2.2.

$$2.7.2 \quad [F_{\Delta H}^L(X, Y)]^{SURV} = \frac{F_{\Delta H}^D(X, Y) * M_{\Delta H}(X, Y)}{\text{UMR} * \text{TILT}}$$

where:

$[F_{\Delta H}^L(X, Y)]^{SURV} =$ Cycle dependent maximum allowable design peaking factor that ensures $F_{\Delta H}(X, Y)$ limit is not exceeded for operation within AFD, RIL, and QPTR limits. $F_{\Delta H}^L(X, Y)^{SURV}$ includes allowances for calculation and measurement uncertainty.

$F_{\Delta H}^D(X, Y) =$ Design power distribution for $F_{\Delta H}$. $F_{\Delta H}^D(X, Y)$ is provided in Appendix Table A-3 for normal operation and in Appendix Table A-6 for power escalation testing during initial startup operation.

Catawba 1 Cycle 27 Core Operating Limits Report

$M_{\Delta H}(X,Y)$ = Margin remaining in core location X,Y relative to the Operational DNB limits in the transient power distribution. $M_{\Delta H}(X,Y)$ is provided in Appendix Table A-3 for normal operation and in Appendix Table A-6 for power escalation testing during initial startup operation.

UMR = Uncertainty value for measured radial peaks (UMR = 1.0). UMR is 1.0 since a factor of 1.04 is implicitly included in the variable $M_{\Delta H}(X,Y)$.

TILT = Defined in Section 2.6.5.

2.7.3 RRH is defined in Section 2.7.1.

2.7.4 TRH = 0.04

where:

TRH = Reduction in OTΔT K_1 setpoint required to compensate for each 1% that the measured radial peak, $F_{\Delta H}^M(X,Y)$ exceeds its limit.

2.7.5 $F_{\Delta H}(X,Y)$ Penalty Factors for Technical Specification Surveillance 3.2.2.2 are provided in Table 2.

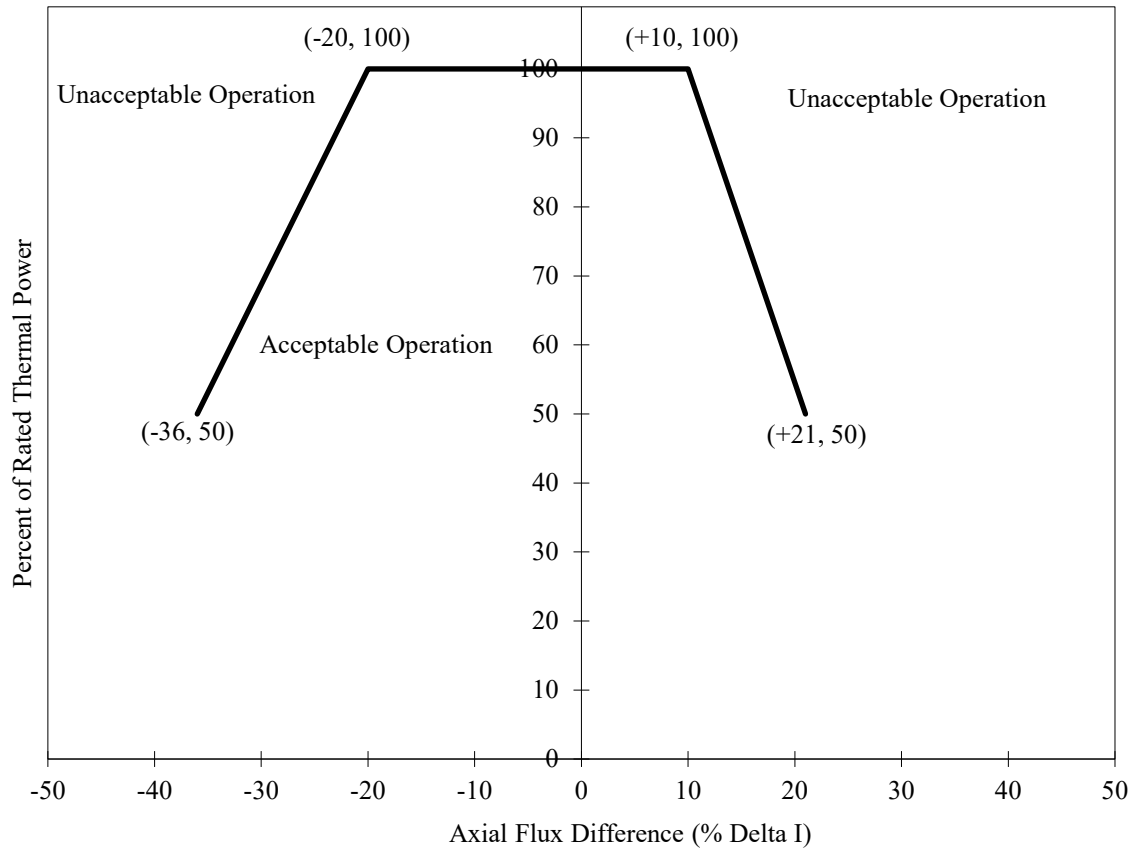
2.8 Axial Flux Difference – AFD (TS 3.2.3)

2.8.1 Axial Flux Difference (AFD) Limits are provided in Figure 5.

Catawba 1 Cycle 27 Core Operating Limits Report

Table 3
Maximum Allowable Radial Peaks (MARPs)
RFA Steady State Limiting Value Between
Loss of Flow Accident (LOFA) MARPs and $F\Delta H_{LOCA}$

Core Height (ft)	Axial Peak												
	1.05	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.1	3	3.25
0.12	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.3151	1.2461
1.20	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.3007	1.2235
2.40	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.4633	1.4616
3.60	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.4675	1.3874
4.80	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.2987	1.2579
6.00	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.3293	1.2602
7.20	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.5982	1.2871	1.2195
8.40	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6010	1.5127	1.2182	1.1578
9.60	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.5808	1.5301	1.4444	1.1431	1.0914
10.80	1.6058	1.6058	1.6058	1.6058	1.6058	1.6058	1.5743	1.5573	1.5088	1.4624	1.3832	1.1009	1.0470
11.40	1.6058	1.6058	1.6058	1.6058	1.6057	1.5826	1.5289	1.5098	1.4637	1.4218	1.3458	1.0670	1.0142

Catawba 1 Cycle 27 Core Operating Limits Report**Figure 5****Percent of Rated Thermal Power Versus Percent Axial Flux Difference Limits**

NOTE: Compliance with Technical Specification 3.2.1 may require more restrictive AFD limits. Refer to the Unit 1 ROD manual for operational AFD limits.

Catawba 1 Cycle 27 Core Operating Limits Report

2.9 Reactor Trip System Instrumentation Setpoints (TS 3.3.1) Table 3.3.1-1

2.9.1 Overtemperature ΔT Setpoint Parameter Values

<u>Parameter</u>	<u>Nominal Value</u>
Nominal T_{avg} at RTP	$T' \leq 585.1^{\circ}\text{F}$
Nominal RCS Operating Pressure	$P' = 2235 \text{ psig}$
Overtemperature ΔT reactor trip setpoint	$K_1 = 1.1978$
Overtemperature ΔT reactor trip heatup setpoint penalty coefficient	$K_2 = 0.03340/^{\circ}\text{F}$
Overtemperature ΔT reactor trip depressurization setpoint penalty coefficient	$K_3 = 0.001601/\text{psi}$
Time constants utilized in the lead-lag compensator for ΔT	$\tau_1 = 8 \text{ sec.}$ $\tau_2 = 3 \text{ sec.}$
Time constant utilized in the lag compensator for ΔT	$\tau_3 = 0 \text{ sec.}$
Time constants utilized in the lead-lag compensator for T_{avg}	$\tau_4 = 22 \text{ sec.}$ $\tau_5 = 4 \text{ sec.}$
Time constant utilized in the measured T_{avg} lag compensator	$\tau_6 = 0 \text{ sec.}$
$f_1(\Delta I)$ "positive" breakpoint	$= 19.0 \% \Delta I$
$f_1(\Delta I)$ "negative" breakpoint	$= \text{N/A}^*$
$f_1(\Delta I)$ "positive" slope	$= 1.769 \% \Delta T_0 / \% \Delta I$
$f_1(\Delta I)$ "negative" slope	$= \text{N/A}^*$

* $f_1(\Delta I)$ negative breakpoints and slopes for OT ΔT are less restrictive than OP ΔT $f_2(\Delta I)$ negative breakpoint and slope. Therefore, during a transient which challenges negative imbalance limits, OP ΔT $f_2(\Delta I)$ limits will result in a reactor trip before OT ΔT $f_1(\Delta I)$ limits are reached. This makes implementation of an OT ΔT $f_1(\Delta I)$ negative breakpoint and slope unnecessary.

Catawba 1 Cycle 27 Core Operating Limits Report

2.9.2 Overpower ΔT Setpoint Parameter Values

<u>Parameter</u>	<u>Nominal Value</u>
Nominal T_{avg} at RTP	$T'' \leq 585.1^\circ\text{F}$
Overpower ΔT reactor trip setpoint	$K_4 = 1.0864$
Overpower ΔT reactor trip penalty	$K_5 = 0.02 / ^\circ\text{F}$ for increasing T_{avg} $K_5 = 0.00 / ^\circ\text{F}$ for decreasing T_{avg}
Overpower ΔT reactor trip heatup setpoint penalty coefficient	$K_6 = 0.001179/^\circ\text{F}$ for $T > T''$ $K_6 = 0.0 / ^\circ\text{F}$ for $T \leq T''$
Time constants utilized in the lead-lag compensator for ΔT	$\tau_1 = 8 \text{ sec.}$ $\tau_2 = 3 \text{ sec.}$
Time constant utilized in the lag compensator for ΔT	$\tau_3 = 0 \text{ sec.}$
Time constant utilized in the measured T_{avg} lag compensator	$\tau_6 = 0 \text{ sec.}$
Time constant utilized in the rate-lag controller for T_{avg}	$\tau_7 = 10 \text{ sec.}$
$f_2(\Delta I)$ "positive" breakpoint	$= 35.0 \% \Delta I$
$f_2(\Delta I)$ "negative" breakpoint	$= -35.0 \% \Delta I$
$f_2(\Delta I)$ "positive" slope	$= 7.0 \% \Delta T_0 / \% \Delta I$
$f_2(\Delta I)$ "negative" slope	$= 7.0 \% \Delta T_0 / \% \Delta I$

Catawba 1 Cycle 27 Core Operating Limits Report

2.10 Boron Dilution Mitigation System (TS 3.3.9)

2.10.1 Reactor Makeup Water Pump flow rate limits:

<u>Applicable Mode</u>	<u>Limit</u>
MODE 3	≤ 80 gpm
MODE 4 or 5	≤ 70 gpm

2.11 RCS Pressure, Temperature, and Flow Limits for DNB (TS 3.4.1)

RCS pressure, temperature and flow limits for DNB are shown in Table 4.

2.12 Accumulators (TS 3.5.1)

2.12.1 Boron concentration limits during MODES 1 and 2, and MODE 3 with RCS pressure >1000 psi:

<u>Parameter</u>	<u>Applicable Burnup</u>	<u>Limit</u>
Accumulator minimum boron concentration.	0 - 200 EFPD	2,500 ppm
Accumulator minimum boron concentration.	200.1 - 300 EFPD	2,500 ppm
Accumulator minimum boron concentration.	300.1 - 400 EFPD	2,297 ppm
Accumulator minimum boron concentration.	400.1 - 513 EFPD	2,145 ppm
Accumulator minimum boron concentration	513.1 - 523 EFPD	1,972 ppm
Accumulator maximum boron concentration.	0 - 523 EFPD	3,075 ppm

Catawba 1 Cycle 27 Core Operating Limits Report

Table 4

Reactor Coolant System DNB Parameters

PARAMETER	INDICATION	No. Operable CHANNELS	LIMITS
1. Indicated RCS Average Temperature	meter	4	≤ 587.5 °F
	meter	3	≤ 587.3 °F
	computer	4	≤ 588.0 °F
	computer	3	≤ 587.9 °F
2. Indicated Pressurizer Pressure	meter	4	≥ 2206.9 psig
	meter	3	≥ 2208.7 psig
	computer	4	≥ 2204.0 psig
	computer	3	≥ 2205.4 psig
3. RCS Total Flow Rate			$\geq 384,000$ gpm

Catawba 1 Cycle 27 Core Operating Limits Report

2.13 Refueling Water Storage Tank - RWST (TS 3.5.4)

2.13.1 Boron concentration limits during MODES 1, 2, 3, and 4:

<u>Parameter</u>	<u>Limit</u>
RWST minimum boron concentration.	2,700 ppm
RWST maximum boron concentration.	3,075 ppm

2.14 Spent Fuel Pool Boron Concentration (TS 3.7.15)

2.14.1 Minimum boron concentration limit for the spent fuel pool. Applicable when fuel assemblies are stored in the spent fuel pool.

<u>Parameter</u>	<u>Limit</u>
Spent fuel pool minimum boron concentration.	2,700 ppm

2.15 Refueling Operations - Boron Concentration (TS 3.9.1)

2.15.1 Minimum boron concentration limit for filled portions of the Reactor Coolant System, refueling canal, and refueling cavity for MODE 6 conditions. The minimum boron concentration limit and plant refueling procedures ensure that core K_{eff} remains within MODE 6 reactivity requirement of $K_{\text{eff}} \leq 0.95$.

<u>Parameter</u>	<u>Limit</u>
Minimum boron concentration of the Reactor Coolant System, the refueling canal, and the refueling cavity.	2,700 ppm

Catawba 1 Cycle 27 Core Operating Limits Report

2.16 Standby Shutdown System - (SLC-16.7-9)

2.16.1 Minimum boron concentration limit for the spent fuel pool required for Standby Makeup Pump Water Supply. Applicable for MODES 1, 2, and 3.

<u>Parameter</u>	<u>Limit</u>
Spent fuel pool minimum boron concentration for TR 16.7-9-3.	2,700 ppm

2.17 Boration Systems Borated Water Source – Shutdown (SLC 16.9-11)

2.17.1 Volume and boron concentrations for the Boric Acid Tank (BAT) and the Refueling Water Storage Tank (RWST) during MODE 4 with any RCS cold leg temperature ≤ 210 °F, and MODES 5 and 6.

<u>Parameter</u>	<u>Limit</u>
BAT minimum boron concentration	7,000 ppm
Volume of 7,000 ppm boric acid solution required to maintain SDM at 68°F	2,000 gallons

NOTE: When cycle burnup is > 445 EFPD, Figure 6 may be used to determine the required BAT minimum level.

BAT Minimum Shutdown Volume (Includes the additional volumes listed in SLC 16.9-11)	13,086 gallons (14.9%)
RWST minimum boron concentration	2,700 ppm
Volume of 2,700 ppm boric acid solution required to maintain SDM at 68 °F	7,000 gallons
RWST Minimum Shutdown Volume (Includes the additional volumes listed in SLC 16.9-11)	48,500 gallons (8.7%)

Catawba 1 Cycle 27 Core Operating Limits Report

2.18 Boration Systems Borated Water Source - Operating (SLC 16.9-12)

2.18.1 Volume and boron concentrations for the Boric Acid Tank (BAT) and the Refueling Water Storage Tank (RWST) during MODES 1, 2, and 3 and MODE 4 with all RCS cold leg temperatures > 210 °F*.

*** NOTE: The SLC 16.9-12 applicability is down to MODE 4 temperatures of > 210°F. The minimum volumes calculated support cooldown to 200°F to satisfy UFSAR Chapter 9 requirements.**

<u>Parameter</u>	<u>Limit</u>
BAT minimum boron concentration	7,000 ppm
Volume of 7,000 ppm boric acid solution required to maintain SDM at 210 °F	13,500 gallons

NOTE: When cycle burnup is > 445 EFPD, Figure 6 may be used to determine the required BAT minimum level.

BAT Minimum Shutdown Volume (Includes the additional volumes listed in SLC 16.9-12)	25,200 gallons (45.8%)
RWST minimum boron concentration	2,700 ppm
Volume of 2,700 ppm boric acid solution required to maintain SDM at 210 °F	57,107 gallons
RWST Minimum Shutdown Volume (Includes the additional volumes listed in SLC 16.9-12)	98,607 gallons (22.0%)

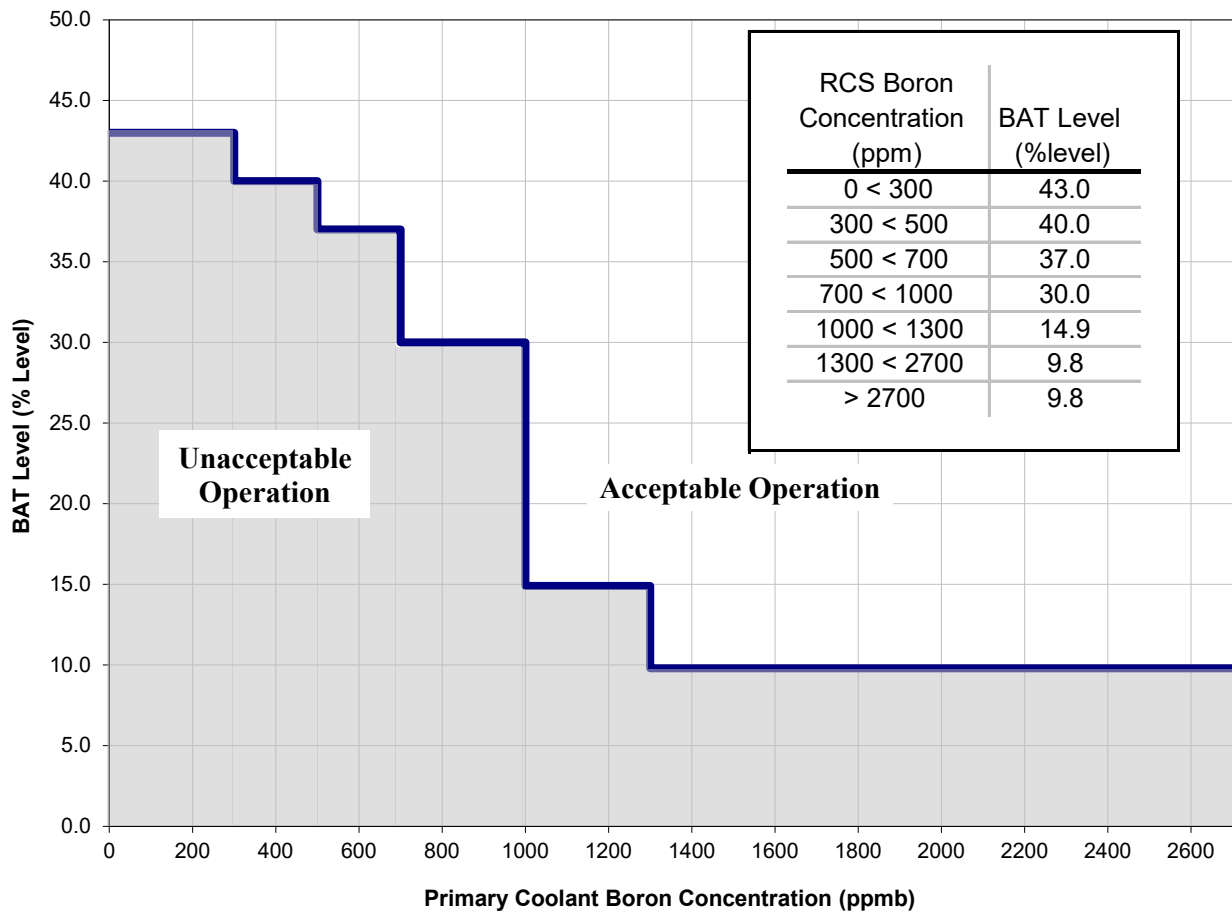
Catawba 1 Cycle 27 Core Operating Limits Report

Figure 6

**Boric Acid Storage Tank Indicated Level Versus
Primary Coolant Boron Concentration**

(Valid When Cycle Burnup is > 445 EFPD)

This figure includes additional volumes listed in SLC 16.9-11 and 16.9-12



Catawba 1 Cycle 27 Core Operating Limits Report

Appendix A

Power Distribution Monitoring Factors

Appendix A contains power distribution monitoring factors used in Technical Specification Surveillance. This data was generated in the Catawba 1 Cycle 27 Maneuvering Analysis calculation file, CNC-1553.05-00-0705, Rev 0. Due to the size of the monitoring factor data, Appendix A is controlled electronically within the Duke document management system and is not included in the Duke internal copies of the COLR. The Plant Reactor Engineering section will control this information via computer file(s) and should be contacted if there is a need to access this information.

Appendix A is available to be transmitted to the NRC.

Filename	Cksum / File Size
c1c27_AppendixA.pdf	1983734659 / 3527213

Attachment

Catawba Unit 1, Cycle 27, Revision 0, Core Operating Limits Report,
Appendix A, Power Distribution Monitoring Factors

Appendix A**Power Distribution Monitoring Factors**

Table	Description	Page
TABLE A-1	F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN), NORMAL OPERATION	2
TABLE A-2	M-SUB-C VALUES (F-SUB-Q RPS MARGIN), NORMAL OPERATION	254
TABLE A-3	F-DEL-H & M-DEL-H VALUES, NORMAL OPERATION	278
TABLE A-4	F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN), POWER ESCALATION	289
TABLE A-5	M-SUB-C VALUES (F-SUB-Q RPS MARGIN), POWER ESCALATION	337
TABLE A-6	F-DEL-H & M-DEL-H VALUES, POWER ESCALATION	349

Catawba 1 Cycle 27 Core Operating Limits Report

* JOB/DATE PJL/27May2021 CREATED BY SMARG12 COMPILED 13Mar2020 COLR FILE
/nfe/mcd/dcs/clc27/ma/pflr/pflr_bu7_ghost.clr
TABLE A-1

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data representing core operating limits at Level 24.

AT 100% POWER, 4 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data representing core operating limits at Level 23.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4057	* 1.3457	* 1.3234	* 1.3435	* 1.4776	* 1.4455	* 1.4538	* 0.8025
	* 1.4285	* 1.5006	* 1.5239	* 1.4603	* 1.3159	* 1.3413	* 1.3237	* 2.1762
9	* 1.3457	* 1.4689	* 1.4783	* 1.4559	* 1.3959	* 1.4344	* 1.4464	* 0.7937
	* 1.5006	* 1.3879	* 1.3568	* 1.3507	* 1.4030	* 1.3562	* 1.3353	* 2.2016
10	* 1.3234	* 1.4782	* 1.3077	* 1.2900	* 1.3915	* 1.3885	* 1.4191	* 0.7549
	* 1.5239	* 1.3568	* 1.5435	* 1.5569	* 1.4355	* 1.4326	* 1.3888	* 2.3364
11	* 1.3435	* 1.4560	* 1.2902	* 1.4233	* 1.2464	* 1.3088	* 1.3188	* 0.6396
	* 1.4603	* 1.3506	* 1.5565	* 1.4097	* 1.5971	* 1.5239	* 1.5094	* 2.8486
12	* 1.4776	* 1.3959	* 1.3917	* 1.2465	* 1.3272	* 1.3707	* 0.9116	
	* 1.3159	* 1.4030	* 1.4354	* 1.5971	* 1.4517	* 1.4068	* 1.9704	
13	* 1.4455	* 1.4345	* 1.3887	* 1.3089	* 1.3708	* 1.0065	* 0.5049	
	* 1.3413	* 1.3561	* 1.4324	* 1.5237	* 1.4068	* 1.7504	* 3.4542	
14	* 1.4538	* 1.4465	* 1.4193	* 1.3190	* 0.9117	* 0.5048		
	* 1.3237	* 1.3353	* 1.3886	* 1.5092	* 1.9699	* 3.4549		
15	* 0.8025	* 0.7935	* 0.7561	* 0.6401	* F-SUB-Q			
	* 2.1762	* 2.2014	* 2.3343	* 2.8476	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5326	* 1.4539	* 1.4376	* 1.4386	* 1.6052	* 1.5679	* 1.6047	* 0.8390
	* 1.3433	* 1.4274	* 1.4251	* 1.3843	* 1.2267	* 1.2535	* 1.2152	* 2.1107
9	* 1.4539	* 1.6045	* 1.6136	* 1.5839	* 1.4948	* 1.5591	* 1.5968	* 0.8304
	* 1.4274	* 1.2945	* 1.2619	* 1.2589	* 1.3243	* 1.2638	* 1.2257	* 2.1384
10	* 1.4376	* 1.6136	* 1.4205	* 1.3837	* 1.5049	* 1.5086	* 1.5653	* 0.7871
	* 1.4251	* 1.2620	* 1.4416	* 1.4727	* 1.3408	* 1.3325	* 1.2759	* 2.2713
11	* 1.4386	* 1.5839	* 1.3843	* 1.5493	* 1.3254	* 1.4139	* 1.4430	* 0.6686
	* 1.3843	* 1.2589	* 1.4721	* 1.3218	* 1.5171	* 1.4246	* 1.4036	* 2.7617
12	* 1.6052	* 1.4949	* 1.5050	* 1.3255	* 1.4491	* 1.5149	* 0.9530	
	* 1.2267	* 1.3242	* 1.3406	* 1.5171	* 1.3583	* 1.3004	* 1.9201	
13	* 1.5679	* 1.5593	* 1.5089	* 1.4141	* 1.5150	* 1.0804	* 0.5301	
	* 1.2535	* 1.2637	* 1.3322	* 1.4246	* 1.3003	* 1.6688	* 3.3584	
14	* 1.6047	* 1.5968	* 1.5656	* 1.4433	* 0.9531	* 0.5300		
	* 1.2152	* 1.2256	* 1.2757	* 1.4034	* 1.9196	* 3.3591		
15	* 0.8390	* 0.8301	* 0.7886	* 0.6692	* F-SUB-Q			
	* 2.1107	* 2.1385	* 2.2687	* 2.7604	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 20 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5914	* 1.4952	* 1.4786	* 1.4786	* 1.6709	* 1.6160	* 1.6767	* 0.8591
	* 1.3227	* 1.4171	* 1.4086	* 1.3694	* 1.1973	* 1.2301	* 1.1807	* 2.0945
9	* 1.4952	* 1.6722	* 1.6680	* 1.6472	* 1.5366	* 1.6078	* 1.6682	* 0.8511
	* 1.4171	* 1.2671	* 1.2401	* 1.2335	* 1.3088	* 1.2398	* 1.1909	* 2.1193
10	* 1.4786	* 1.6680	* 1.4595	* 1.4187	* 1.5584	* 1.5603	* 1.6373	* 0.8077
	* 1.4086	* 1.2402	* 1.4256	* 1.4588	* 1.3147	* 1.3070	* 1.2370	* 2.2470
11	* 1.4786	* 1.6472	* 1.4193	* 1.6037	* 1.3571	* 1.4653	* 1.5079	* 0.6860
	* 1.3694	* 1.2335	* 1.4582	* 1.3016	* 1.5103	* 1.3978	* 1.3675	* 2.7297
12	* 1.6709	* 1.5367	* 1.5586	* 1.3572	* 1.4976	* 1.5824	* 0.9837	
	* 1.1973	* 1.3087	* 1.3146	* 1.5103	* 1.3424	* 1.2711	* 1.8984	
13	* 1.6160	* 1.6079	* 1.5606	* 1.4655	* 1.5824	* 1.1162	* 0.5415	
	* 1.2301	* 1.2397	* 1.3067	* 1.3977	* 1.2710	* 1.6513	* 3.3622	
14	* 1.6767	* 1.6683	* 1.6376	* 1.5082	* 0.9838	* 0.5413		
	* 1.1807	* 1.1908	* 1.2368	* 1.3673	* 1.8979	* 3.3628		
15	* 0.8591	* 0.8507	* 0.8093	* 0.6866	* F-SUB-Q			
	* 2.0945	* 2.1195	* 2.2443	* 2.7284	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 19 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6166	* 1.5116	* 1.4949	* 1.4960	* 1.7016	* 1.6412	* 1.7124	* 0.8716
	* 1.3277	* 1.4266	* 1.4186	* 1.3795	* 1.1977	* 1.2312	* 1.1768	* 2.1027
9	* 1.5116	* 1.7017	* 1.6916	* 1.6752	* 1.5556	* 1.6347	* 1.7036	* 0.8639
	* 1.4266	* 1.2614	* 1.2446	* 1.2370	* 1.3172	* 1.2409	* 1.1867	* 2.1255
10	* 1.4949	* 1.6916	* 1.4734	* 1.4325	* 1.5821	* 1.5864	* 1.6750	* 0.8220
	* 1.4186	* 1.2446	* 1.4373	* 1.4694	* 1.3169	* 1.3058	* 1.2283	* 2.2456
11	* 1.4960	* 1.6752	* 1.4332	* 1.6263	* 1.3713	* 1.4899	* 1.5423	* 0.6978
	* 1.3795	* 1.2370	* 1.4688	* 1.3043	* 1.5221	* 1.3997	* 1.3551	* 2.7181
12	* 1.7016	* 1.5556	* 1.5823	* 1.3714	* 1.5204	* 1.6156	* 1.0038	
	* 1.1977	* 1.3171	* 1.3167	* 1.5221	* 1.3497	* 1.2711	* 1.8949	
13	* 1.6412	* 1.6348	* 1.5867	* 1.4901	* 1.6156	* 1.1364	* 0.5479	
	* 1.2312	* 1.2408	* 1.3056	* 1.3997	* 1.2710	* 1.6595	* 3.3972	
14	* 1.7124	* 1.7037	* 1.6753	* 1.5427	* 1.0039	* 0.5478		
	* 1.1768	* 1.1866	* 1.2281	* 1.3548	* 1.8944	* 3.3979		
15	* 0.8716	* 0.8636	* 0.8236	* 0.6984	* F-SUB-Q			
	* 2.1027	* 2.1255	* 2.2429	* 2.7169	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6468	* 1.5298	* 1.5133	* 1.5157	* 1.7359	* 1.6728	* 1.7542	* 0.8766
	* 1.3182	* 1.4226	* 1.4290	* 1.3913	* 1.1995	* 1.2333	* 1.1728	* 2.1353
9	* 1.5298	* 1.7330	* 1.7185	* 1.7060	* 1.5777	* 1.6660	* 1.7453	* 0.8696
	* 1.4226	* 1.2534	* 1.2492	* 1.2391	* 1.3260	* 1.2424	* 1.1821	* 2.1553
10	* 1.5133	* 1.7186	* 1.4901	* 1.4486	* 1.6138	* 1.6172	* 1.7174	* 0.8260
	* 1.4290	* 1.2493	* 1.4484	* 1.4812	* 1.3146	* 1.3031	* 1.2188	* 2.2772
11	* 1.5157	* 1.7061	* 1.4494	* 1.6559	* 1.3889	* 1.5213	* 1.5807	* 0.7006
	* 1.3913	* 1.2391	* 1.4804	* 1.2977	* 1.5313	* 1.3965	* 1.3355	* 2.7403
12	* 1.7359	* 1.5778	* 1.6140	* 1.3889	* 1.5477	* 1.6530	* 1.0109	
	* 1.1995	* 1.3259	* 1.3144	* 1.5313	* 1.3519	* 1.2664	* 1.9171	
13	* 1.6728	* 1.6662	* 1.6176	* 1.5215	* 1.6531	* 1.1453	* 0.5473	
	* 1.2333	* 1.2423	* 1.3028	* 1.3964	* 1.2664	* 1.6793	* 3.4683	
14	* 1.7542	* 1.7454	* 1.7177	* 1.5811	* 1.0109	* 0.5472		
	* 1.1728	* 1.1820	* 1.2185	* 1.3351	* 1.9166	* 3.4690		
15	* 0.8766	* 0.8692	* 0.8276	* 0.7012	* F-SUB-Q			
	* 2.1353	* 2.1556	* 2.2743	* 2.7390	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6591	* 1.5362	* 1.5202	* 1.5240	* 1.7534	* 1.6906	* 1.7777	* 0.8791
	* 1.3340	* 1.4457	* 1.4522	* 1.4181	* 1.2171	* 1.2500	* 1.1854	* 2.1810
9	* 1.5362	* 1.7468	* 1.7310	* 1.7201	* 1.5882	* 1.6837	* 1.7686	* 0.8726
	* 1.4457	* 1.2693	* 1.2672	* 1.2580	* 1.3492	* 1.2582	* 1.1941	* 2.1981
10	* 1.5202	* 1.7311	* 1.4958	* 1.4546	* 1.6290	* 1.6347	* 1.7421	* 0.8289
	* 1.4522	* 1.2672	* 1.4710	* 1.5052	* 1.3281	* 1.3135	* 1.2249	* 2.3173
11	* 1.5240	* 1.7202	* 1.4554	* 1.6686	* 1.3964	* 1.5366	* 1.6024	* 0.7025
	* 1.4181	* 1.2580	* 1.5044	* 1.3102	* 1.5464	* 1.4027	* 1.3401	* 2.7705
12	* 1.7534	* 1.5883	* 1.6292	* 1.3964	* 1.5622	* 1.6735	* 1.0160	
	* 1.2171	* 1.3491	* 1.3280	* 1.5464	* 1.3630	* 1.2725	* 1.9340	
13	* 1.6906	* 1.6839	* 1.6350	* 1.5368	* 1.6736	* 1.1510	* 0.5465	
	* 1.2500	* 1.2581	* 1.3133	* 1.4026	* 1.2724	* 1.7035	* 3.5301	
14	* 1.7777	* 1.7687	* 1.7425	* 1.6028	* 1.0160	* 0.5463		
	* 1.1854	* 1.1940	* 1.2246	* 1.3398	* 1.9335	* 3.5308		
15	* 0.8791	* 0.8722	* 0.8306	* 0.7032	* F-SUB-Q			
	* 2.1810	* 2.1985	* 2.3143	* 2.7691	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6730	* 1.5426	* 1.5273	* 1.5320	* 1.7720	* 1.7081	* 1.8019	* 0.8791 *
	* 1.3626	* 1.4736	* 1.4804	* 1.4504	* 1.2385	* 1.2717	* 1.2020	* 2.2411 *
9	* 1.5426	* 1.7616	* 1.7442	* 1.7354	* 1.5989	* 1.7011	* 1.7927	* 0.8731 *
	* 1.4736	* 1.2842	* 1.2886	* 1.2802	* 1.3772	* 1.2788	* 1.2099	* 2.2554 *
10	* 1.5273	* 1.7444	* 1.5019	* 1.4604	* 1.6461	* 1.6517	* 1.7668	* 0.8287 *
	* 1.4804	* 1.2885	* 1.4996	* 1.5345	* 1.3439	* 1.3278	* 1.2348	* 2.3741 *
11	* 1.5320	* 1.7355	* 1.4614	* 1.6836	* 1.4039	* 1.5534	* 1.6238	* 0.7015 *
	* 1.4504	* 1.2802	* 1.5336	* 1.3296	* 1.5791	* 1.4223	* 1.3490	* 2.8255 *
12	* 1.7720	* 1.5990	* 1.6463	* 1.4039	* 1.5769	* 1.6945	* 1.0153	*
	* 1.2385	* 1.3772	* 1.3437	* 1.5791	* 1.3880	* 1.2892	* 1.9825	*
13	* 1.7081	* 1.7013	* 1.6521	* 1.5536	* 1.6946	* 1.1528	* 0.5439	*
	* 1.2717	* 1.2787	* 1.3275	* 1.4222	* 1.2892	* 1.7448	* 3.6302	*
14	* 1.8019	* 1.7929	* 1.7672	* 1.6242	* 1.0154	* 0.5437	*	*
	* 1.2020	* 1.2098	* 1.2346	* 1.3487	* 1.9819	* 3.6310	*	*
15	* 0.8791	* 0.8727	* 0.8303	* 0.7022	* F-SUB-Q			
	* 2.2411	* 2.2558	* 2.3710	* 2.8240	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6482	* 1.5248	* 1.5104	* 1.5161	* 1.7538	* 1.6960	* 1.7853	* 0.8800 *
	* 1.4180	* 1.5303	* 1.5410	* 1.5123	* 1.2914	* 1.3210	* 1.2511	* 2.3078 *
9	* 1.5248	* 1.7402	* 1.7263	* 1.7147	* 1.5834	* 1.6888	* 1.7762	* 0.8743 *
	* 1.5303	* 1.3361	* 1.3397	* 1.3385	* 1.4342	* 1.3276	* 1.2586	* 2.3198 *
10	* 1.5104	* 1.7266	* 1.4847	* 1.4453	* 1.6251	* 1.6399	* 1.7530	* 0.8344 *
	* 1.5410	* 1.3396	* 1.5617	* 1.5957	* 1.3985	* 1.3728	* 1.2774	* 2.4230 *
11	* 1.5161	* 1.7149	* 1.4463	* 1.6602	* 1.3895	* 1.5340	* 1.6096	* 0.7067 *
	* 1.5123	* 1.3384	* 1.5947	* 1.3797	* 1.6426	* 1.4789	* 1.3913	* 2.8727 *
12	* 1.7538	* 1.5835	* 1.6253	* 1.3895	* 1.5635	* 1.6787	* 1.0229	*
	* 1.2914	* 1.4341	* 1.3983	* 1.6427	* 1.4466	* 1.3438	* 2.0209	*
13	* 1.6960	* 1.6890	* 1.6403	* 1.5342	* 1.6788	* 1.1567	* 0.5459	*
	* 1.3210	* 1.3274	* 1.3725	* 1.4787	* 1.3438	* 1.7962	* 3.7292	*
14	* 1.7853	* 1.7763	* 1.7534	* 1.6100	* 1.0230	* 0.5458	*	*
	* 1.2511	* 1.2585	* 1.2771	* 1.3910	* 2.0204	* 3.7299	*	*
15	* 0.8800	* 0.8738	* 0.8360	* 0.7074	* F-SUB-Q			
	* 2.3078	* 2.3202	* 2.4201	* 2.8713	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6706	1.5345	1.5207	1.5274	1.7791	1.7185	1.8187	0.8740
	1.4450	1.5726	1.5829	1.5550	1.3185	1.3496	1.2711	2.4026
9	1.5345	1.7617	1.7448	1.7368	1.5978	1.7113	1.8096	0.8691
	1.5726	1.3650	1.3710	1.3649	1.4714	1.3553	1.2779	2.4115
10	1.5207	1.7451	1.4941	1.4532	1.6509	1.6623	1.7859	0.8259
	1.5829	1.3708	1.6043	1.6397	1.4202	1.3958	1.2926	2.5247
11	1.5274	1.7370	1.4542	1.6837	1.3999	1.5587	1.6383	0.6976
	1.5550	1.3648	1.6385	1.4038	1.6758	1.4974	1.4068	2.9958
12	1.7791	1.5979	1.6511	1.3999	1.5831	1.7074	1.0130	
	1.3185	1.4713	1.4200	1.6758	1.4679	1.3565	2.0932	
13	1.7185	1.7115	1.6626	1.5589	1.7075	1.1507	0.5378	
	1.3496	1.3551	1.3955	1.4972	1.3564	1.8564	3.8760	
14	1.8187	1.8097	1.7863	1.6387	1.0131	0.5377		
	1.2711	1.2778	1.2924	1.4065	2.0926	3.8768		
15	0.8740	0.8686	0.8276	0.6984	F-SUB-Q			
	2.4026	2.4120	2.5213	2.9942	M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6657	1.5271	1.5141	1.5218	1.7787	1.7194	1.8228	0.8696
	1.4478	1.5755	1.5868	1.5732	1.3477	1.3964	1.3160	2.5033
9	1.5271	1.7578	1.7410	1.7336	1.5936	1.7121	1.8136	0.8650
	1.5755	1.3685	1.3809	1.3821	1.5045	1.4032	1.3225	2.5098
10	1.5141	1.7415	1.4870	1.4465	1.6494	1.6636	1.7913	0.8226
	1.5868	1.3805	1.6150	1.6587	1.4567	1.4429	1.3330	2.6224
11	1.5218	1.7338	1.4476	1.6800	1.3949	1.5578	1.6418	0.6942
	1.5732	1.3821	1.6575	1.4333	1.7360	1.5459	1.4502	3.1047
12	1.7787	1.5936	1.6496	1.3948	1.5825	1.7099	1.0099	
	1.3477	1.5045	1.4565	1.7358	1.5145	1.3979	2.1666	
13	1.7194	1.7124	1.6640	1.5581	1.7100	1.1470	0.5335	
	1.3964	1.4029	1.4426	1.5458	1.3978	1.9201	4.0231	
14	1.8228	1.8138	1.7917	1.6422	1.0100	0.5334		
	1.3160	1.3224	1.3327	1.4498	2.1661	4.0240		
15	0.8696	0.8645	0.8243	0.6949	F-SUB-Q			
	2.5033	2.5105	2.6189	3.1031	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6365	1.5042	1.4921	1.5005	1.7546	1.7013	1.8009	0.8653
	1.4370	1.5594	1.5695	1.5553	1.3320	1.3760	1.2988	2.4638
9	1.5042	1.7308	1.7174	1.7075	1.5725	1.6940	1.7919	0.8612
	1.5594	1.3552	1.3648	1.3695	1.4863	1.3829	1.3063	2.4731
10	1.4921	1.7179	1.4648	1.4262	1.6238	1.6465	1.7720	0.8228
	1.5695	1.3644	1.5979	1.6396	1.4429	1.4273	1.3253	2.5789
11	1.5005	1.7078	1.4273	1.6526	1.3758	1.5343	1.6227	0.6947
	1.5553	1.3694	1.6384	1.4215	1.7179	1.5359	1.4506	3.0705
12	1.7546	1.5725	1.6241	1.3757	1.5639	1.6890	1.0103	
	1.3320	1.4863	1.4427	1.7177	1.5282	1.4120	2.1516	
13	1.7013	1.6942	1.6469	1.5345	1.6891	1.1439	0.5320	
	1.3760	1.3827	1.4270	1.5357	1.4119	1.9260	4.0527	
14	1.8009	1.7920	1.7724	1.6231	1.0103	0.5318		
	1.2988	1.3061	1.3251	1.4502	2.1511	4.0536		
15	0.8653	0.8607	0.8244	0.6954	F-SUB-Q			
	2.4638	2.4737	2.5757	3.0689	M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6474	1.5040	1.4927	1.5018	1.7677	1.7129	1.8228	0.8544
	1.3935	1.5215	1.5303	1.5159	1.2913	1.3359	1.2540	2.4277
9	1.5040	1.7403	1.7243	1.7198	1.5764	1.7056	1.8138	0.8509
	1.5215	1.3154	1.3270	1.3253	1.4474	1.3423	1.2610	2.4347
10	1.4927	1.7248	1.4646	1.4248	1.6384	1.6586	1.7939	0.8100
	1.5303	1.3266	1.5582	1.5994	1.3956	1.3840	1.2789	2.5474
11	1.5018	1.7198	1.4260	1.6639	1.3772	1.5486	1.6415	0.6821
	1.5159	1.3252	1.5981	1.3761	1.6739	1.4840	1.3991	3.0369
12	1.7677	1.5764	1.6387	1.3772	1.5736	1.7070	0.9946	
	1.2913	1.4473	1.3954	1.6737	1.4818	1.3627	2.1263	
13	1.7129	1.7059	1.6590	1.5489	1.7071	1.1313	0.5211	
	1.3359	1.3421	1.3837	1.4837	1.3626	1.8982	4.0096	
14	1.8228	1.8140	1.7943	1.6419	0.9947	0.5210		
	1.2540	1.2609	1.2786	1.3988	2.1257	4.0105		
15	0.8544	0.8504	0.8116	0.6828	F-SUB-Q			
	2.4277	2.4354	2.5440	3.0353	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6384	* 1.4917	* 1.4812	* 1.4911	* 1.7615	* 1.7085	* 1.8227	* 0.8447
	* 1.3426	* 1.4695	* 1.4773	* 1.4629	* 1.2428	* 1.2856	* 1.2035	* 2.3542
9	* 1.4917	* 1.7311	* 1.7150	* 1.7129	* 1.5667	* 1.7012	* 1.8138	* 0.8417
	* 1.4695	* 1.2670	* 1.2788	* 1.2752	* 1.3963	* 1.2915	* 1.2101	* 2.3595
10	* 1.4812	* 1.7156	* 1.4526	* 1.4130	* 1.6326	* 1.6551	* 1.7952	* 0.8009
	* 1.4773	* 1.2784	* 1.5049	* 1.5447	* 1.3425	* 1.3302	* 1.2257	* 2.4688
11	* 1.4911	* 1.7130	* 1.4142	* 1.6558	* 1.3677	* 1.5439	* 1.6416	* 0.6738
	* 1.4629	* 1.2751	* 1.5434	* 1.3240	* 1.6144	* 1.4253	* 1.3405	* 2.9440
12	* 1.7615	* 1.5668	* 1.6329	* 1.3676	* 1.5686	* 1.7053	* 0.9840	
	* 1.2428	* 1.3963	* 1.3423	* 1.6142	* 1.4275	* 1.3079	* 2.0559	
13	* 1.7085	* 1.7016	* 1.6555	* 1.5442	* 1.7054	* 1.1208	* 0.5131	
	* 1.2856	* 1.2912	* 1.3299	* 1.4250	* 1.3078	* 1.8332	* 3.8936	
14	* 1.8227	* 1.8140	* 1.7956	* 1.6421	* 0.9841	* 0.5130		
	* 1.2035	* 1.2099	* 1.2254	* 1.3401	* 2.0554	* 3.8945		
15	* 0.8447	* 0.8412	* 0.8026	* 0.6746	* F-SUB-Q			
	* 2.3542	* 2.3603	* 2.4654	* 2.9424	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6194	* 1.4730	* 1.4634	* 1.4737	* 1.7456	* 1.6948	* 1.8098	* 0.8360
	* 1.3059	* 1.4308	* 1.4378	* 1.4237	* 1.2060	* 1.2462	* 1.1655	* 2.2888
9	* 1.4730	* 1.7128	* 1.6973	* 1.6950	* 1.5497	* 1.6874	* 1.8010	* 0.8334
	* 1.4308	* 1.2310	* 1.2423	* 1.2393	* 1.3575	* 1.2519	* 1.1717	* 2.2927
10	* 1.4634	* 1.6980	* 1.4346	* 1.3959	* 1.6165	* 1.6422	* 1.7839	* 0.7944
	* 1.4378	* 1.2419	* 1.4654	* 1.5035	* 1.3036	* 1.2884	* 1.1851	* 2.3939
11	* 1.4737	* 1.6951	* 1.3972	* 1.6378	* 1.3520	* 1.5321	* 1.6303	* 0.6678
	* 1.4237	* 1.2393	* 1.5022	* 1.2863	* 1.5694	* 1.3800	* 1.2965	* 2.8557
12	* 1.7456	* 1.5497	* 1.6168	* 1.3520	* 1.5562	* 1.6926	* 0.9767	
	* 1.2060	* 1.3575	* 1.3034	* 1.5692	* 1.3818	* 1.2640	* 1.9885	
13	* 1.6948	* 1.6877	* 1.6426	* 1.5324	* 1.6927	* 1.1113	* 0.5075	
	* 1.2462	* 1.2516	* 1.2881	* 1.3797	* 1.2639	* 1.7734	* 3.7787	
14	* 1.8098	* 1.8012	* 1.7843	* 1.6307	* 0.9767	* 0.5073		
	* 1.1655	* 1.1716	* 1.1849	* 1.2962	* 1.9880	* 3.7796		
15	* 0.8360	* 0.8328	* 0.7960	* 0.6685	* F-SUB-Q			
	* 2.2888	* 2.2934	* 2.3907	* 2.8541	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5859	1.4461	1.4372	1.4480	1.7152	1.6692	1.7798	0.8286
	1.3887	1.5183	1.5256	1.5104	1.2791	1.3183	1.2347	2.4082
9	1.4461	1.6807	1.6681	1.6617	1.5233	1.6618	1.7714	0.8261
	1.5183	1.3068	1.3172	1.3177	1.4394	1.3243	1.2412	2.4115
10	1.4372	1.6688	1.4083	1.3717	1.5852	1.6177	1.7566	0.7908
	1.5256	1.3166	1.5556	1.5944	1.3850	1.3618	1.2530	2.5067
11	1.4480	1.6618	1.3730	1.6077	1.3287	1.5063	1.6044	0.6654
	1.5104	1.3176	1.5930	1.3667	1.6616	1.4608	1.3706	2.9851
12	1.7152	1.5233	1.5855	1.3287	1.5328	1.6649	0.9733	
	1.2791	1.4394	1.3848	1.6616	1.4571	1.3343	2.0752	
13	1.6692	1.6621	1.6181	1.5066	1.6650	1.1039	0.5040	
	1.3183	1.3240	1.3615	1.4604	1.3342	1.8537	3.9560	
14	1.7798	1.7716	1.7570	1.6048	0.9733	0.5039		
	1.2347	1.2410	1.2527	1.3703	2.0747	3.9570		
15	0.8286	0.8256	0.7923	0.6661	F-SUB-Q			
	2.4082	2.4123	2.5035	2.9835	M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5932	1.4421	1.4339	1.4450	1.7229	1.6739	1.7951	0.8135
	1.3302	1.4681	1.4758	1.4625	1.2303	1.2710	1.1834	2.3752
9	1.4421	1.6860	1.6703	1.6718	1.5220	1.6666	1.7868	0.8116
	1.4681	1.2558	1.2696	1.2651	1.3924	1.2764	1.1891	2.3763
10	1.4339	1.6710	1.4046	1.3665	1.5952	1.6230	1.7713	0.7738
	1.4758	1.2691	1.5059	1.5453	1.3293	1.3106	1.1992	2.4787
11	1.4450	1.6718	1.3679	1.6135	1.3262	1.5180	1.6166	0.6489
	1.4625	1.2651	1.5438	1.3113	1.6019	1.3978	1.3115	2.9595
12	1.7229	1.5221	1.5955	1.3261	1.5388	1.6770	0.9517	
	1.2303	1.3923	1.3290	1.6020	1.3914	1.2722	2.0443	
13	1.6739	1.6669	1.6233	1.5184	1.6771	1.0860	0.4910	
	1.2710	1.2761	1.3103	1.3975	1.2721	1.8095	3.9161	
14	1.7951	1.7870	1.7717	1.6170	0.9518	0.4908		
	1.1834	1.1890	1.1989	1.3112	2.0439	3.9170		
15	0.8135	0.8110	0.7756	0.6496	F-SUB-Q			
	2.3752	2.3772	2.4747	2.9577	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5735	1.4232	1.4158	1.4268	1.7043	1.6577	1.7785	0.8011
	1.2934	1.4303	1.4375	1.4253	1.1964	1.2344	1.1487	2.3233
9	1.4232	1.6658	1.6521	1.6529	1.5044	1.6506	1.7706	0.7995
	1.4303	1.2219	1.2344	1.2310	1.3553	1.2394	1.1540	2.3232
10	1.4158	1.6529	1.3868	1.3490	1.5782	1.6075	1.7554	0.7626
	1.4375	1.2339	1.4673	1.5060	1.2924	1.2720	1.1629	2.4212
11	1.4268	1.6530	1.3503	1.5953	1.3103	1.5026	1.6004	0.6387
	1.4253	1.2310	1.5045	1.2749	1.5561	1.3571	1.2728	2.8939
12	1.7043	1.5044	1.5785	1.3102	1.5248	1.6611	0.9380	
	1.1964	1.3553	1.2921	1.5561	1.3432	1.2306	1.9926	
13	1.6577	1.6509	1.6079	1.5030	1.6612	1.0721	0.4828	
	1.2344	1.2392	1.2718	1.3567	1.2305	1.7567	3.8262	
14	1.7785	1.7708	1.7558	1.6009	0.9380	0.4827		
	1.1487	1.1539	1.1626	1.2725	1.9922	3.8272		
15	0.8011	0.7989	0.7644	0.6394	F-SUB-Q			
	2.3233	2.3241	2.4172	2.8922	M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5205	1.3864	1.3796	1.3902	1.6530	1.6161	1.7222	0.7908
	1.2941	1.4202	1.4273	1.4155	1.1933	1.2246	1.1473	2.2794
9	1.3864	1.6133	1.6084	1.5985	1.4671	1.6091	1.7146	0.7889
	1.4202	1.2202	1.2264	1.2317	1.3446	1.2295	1.1524	2.2799
10	1.3796	1.6092	1.3520	1.3164	1.5290	1.5670	1.7010	0.7566
	1.4273	1.2258	1.4563	1.4933	1.2904	1.2614	1.1598	2.3627
11	1.3902	1.5986	1.3177	1.5482	1.2792	1.4541	1.5488	0.6347
	1.4155	1.2316	1.4918	1.2717	1.5397	1.3554	1.2708	2.8189
12	1.6530	1.4671	1.5293	1.2792	1.4864	1.6105	0.9316	
	1.1933	1.3446	1.2902	1.5398	1.3285	1.2244	1.9392	
13	1.6161	1.6094	1.5673	1.4545	1.6106	1.0610	0.4800	
	1.2246	1.2292	1.2612	1.3550	1.2243	1.7131	3.7222	
14	1.7222	1.7148	1.7015	1.5492	0.9316	0.4798		
	1.1473	1.1523	1.1595	1.2705	1.9388	3.7232		
15	0.7908	0.7884	0.7582	0.6354	F-SUB-Q			
	2.2794	2.2807	2.3596	2.8172	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5029	1.3688	1.3608	1.3739	1.6285	1.5975	1.6984	0.7705
	1.2741	1.4000	1.4086	1.3944	1.1786	1.2051	1.1318	2.2795
9	1.3688	1.5854	1.5882	1.5802	1.4520	1.5912	1.6912	0.7686
	1.4000	1.2083	1.2086	1.2126	1.3221	1.2093	1.1365	2.2799
10	1.3608	1.5890	1.3343	1.2996	1.5152	1.5517	1.6773	0.7341
	1.4086	1.2080	1.4365	1.4727	1.2671	1.2388	1.1436	2.3723
11	1.3739	1.5803	1.3010	1.5311	1.2686	1.4362	1.5264	0.6132
	1.3944	1.2125	1.4712	1.2504	1.5097	1.3345	1.2537	2.8417
12	1.6285	1.4520	1.5155	1.2686	1.4708	1.5898	0.9030	
	1.1786	1.3221	1.2669	1.5098	1.3041	1.2049	1.9462	
13	1.5975	1.5916	1.5520	1.4365	1.5899	1.0324	0.4645	
	1.2051	1.2091	1.2385	1.3342	1.2049	1.7114	3.7451	
14	1.6984	1.6914	1.6777	1.5268	0.9030	0.4643		
	1.1318	1.1363	1.1433	1.2534	1.9458	3.7461		
15	0.7705	0.7681	0.7356	0.6139	F-SUB-Q			
	2.2795	2.2807	2.3690	2.8398	M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4436	1.3174	1.2891	1.3233	1.5543	1.5177	1.6042	0.7474
	1.2508	1.4229	1.4560	1.4172	1.2056	1.2411	1.1724	2.3033
9	1.3174	1.5106	1.5057	1.5100	1.3947	1.5112	1.5967	0.7455
	1.4229	1.2411	1.2475	1.2281	1.3455	1.2458	1.1777	2.3039
10	1.2891	1.5064	1.2622	1.2539	1.4457	1.4798	1.5878	0.7097
	1.4560	1.2469	1.4871	1.4949	1.2655	1.2708	1.1817	2.4053
11	1.3233	1.5101	1.2548	1.4751	1.2275	1.3858	1.4575	0.5891
	1.4172	1.2280	1.4940	1.2573	1.5264	1.3069	1.2844	2.8997
12	1.5543	1.3947	1.4459	1.2276	1.4024	1.5086	0.8780	
	1.2056	1.3456	1.2652	1.5263	1.3380	1.2418	1.9599	
13	1.5177	1.5115	1.4801	1.3860	1.5086	0.9834	0.4428	
	1.2411	1.2455	1.2706	1.3067	1.2418	1.7587	3.8523	
14	1.6042	1.5969	1.5882	1.4578	0.8780	0.4427		
	1.1724	1.1776	1.1814	1.2841	1.9595	3.8533		
15	0.7474	0.7450	0.7110	0.5898	F-SUB-Q			
	2.3033	2.3048	2.4022	2.8979	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4734	1.1474	1.0698	1.1434	1.5314	1.2708	1.4827	0.6559
	1.2508	1.6079	1.7276	1.6145	1.2056	1.4583	1.2468	2.5884
9	1.1474	1.4814	1.2756	1.5021	1.2146	1.2640	1.4752	0.6586
	1.6079	1.2448	1.4490	1.2281	1.5209	1.4658	1.2530	2.5721
10	1.0698	1.2763	1.0433	1.0974	1.4588	1.2457	1.4410	0.6232
	1.7276	1.4482	1.7717	1.6810	1.2655	1.4854	1.2814	2.7010
11	1.1434	1.5023	1.0981	1.4662	1.0811	1.4110	1.3188	0.5126
	1.6145	1.2280	1.6800	1.2573	1.7061	1.3069	1.3972	3.2884
12	1.5314	1.2145	1.4590	1.0812	1.1873	1.3557	0.7892	
	1.2056	1.5210	1.2652	1.7059	1.5553	1.3595	2.1488	
13	1.2708	1.2643	1.2459	1.4112	1.3558	0.8400	0.3763	
	1.4583	1.4655	1.4852	1.3067	1.3595	2.0288	4.4746	
14	1.4827	1.4754	1.4413	1.3191	0.7892	0.3762		
	1.2468	1.2528	1.2811	1.3969	2.1484	4.4756		
15	0.6559	0.6582	0.6239	0.5131	F-SUB-Q			
	2.5884	2.5727	2.6999	3.2866	M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.5903	0.5021	0.4684	0.5087	0.6039	0.5086	0.5414	0.2794
	3.0917	3.6396	3.9076	3.5953	3.0277	3.6006	3.3838	6.0300
9	0.5021	0.5825	0.5112	0.5883	0.5248	0.5009	0.5383	0.2794
	3.6396	3.1362	3.5786	3.1063	3.4859	3.6595	3.4028	6.0151
10	0.4684	0.5114	0.4572	0.4918	0.5800	0.4977	0.5225	0.2673
	3.9076	3.5770	4.0037	3.7153	3.1499	3.6753	3.5022	6.2494
11	0.5087	0.5884	0.4919	0.5614	0.4845	0.5520	0.4818	0.2244
	3.5953	3.1058	3.7140	3.2532	3.7731	3.3109	3.7927	7.4574
12	0.6039	0.5248	0.5801	0.4845	0.4687	0.4958	0.3339	
	3.0277	3.4859	3.1492	3.7726	3.9018	3.6851	5.0383	
13	0.5086	0.5010	0.4978	0.5520	0.4959	0.3456	0.1678	
	3.6006	3.6589	3.6747	3.3105	3.6849	4.8884	9.9659	
14	0.5414	0.5383	0.5227	0.4819	0.3339	0.1677		
	3.3838	3.4025	3.5015	3.7919	5.0372	9.9676		
15	0.2794	0.2794	0.2675	0.2246	F-SUB-Q			
	6.0300	6.0152	6.2497	7.4550	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4582	* 0.4568	* 0.4510	* 0.4826	* 0.5509	* 0.4753	* 0.4787	* 0.2703
	* 3.4843	* 4.0193	* 4.2537	* 3.8647	* 3.3619	* 3.8751	* 3.8156	* 6.1220
9	* 0.4568	* 0.5300	* 0.4791	* 0.5437	* 0.4965	* 0.4685	* 0.4761	* 0.2696
	* 4.0193	* 3.6076	* 3.9869	* 3.4514	* 3.7499	* 3.9496	* 3.8542	* 6.1406
10	* 0.4510	* 0.4792	* 0.4434	* 0.4697	* 0.5360	* 0.4651	* 0.4607	* 0.2562
	* 4.2537	* 3.9862	* 4.3420	* 4.0588	* 3.5712	* 4.1001	* 4.0820	* 6.5288
11	* 0.4826	* 0.5438	* 0.4698	* 0.5133	* 0.4560	* 0.4950	* 0.4333	* 0.2203
	* 3.8647	* 3.4512	* 4.0580	* 3.7048	* 4.1513	* 3.8095	* 4.4092	* 7.8600
12	* 0.5509	* 0.4965	* 0.5361	* 0.4561	* 0.4086	* 0.4234	* 0.3093	
	* 3.3619	* 3.7497	* 3.5708	* 4.1511	* 4.2390	* 4.1735	* 5.4931	
13	* 0.4753	* 0.4686	* 0.4652	* 0.4951	* 0.4234	* 0.3058	* 0.1690	
	* 3.8751	* 3.9494	* 4.0996	* 3.8092	* 4.1734	* 5.1731	* 9.6841	
14	* 0.4787	* 0.4761	* 0.4608	* 0.4334	* 0.3094	* 0.1690		
	* 3.8156	* 3.8540	* 4.0813	* 4.4085	* 5.4917	* 9.6855		
15	* 0.2703	* 0.2696	* 0.2565	* 0.2204	* F-SUB-Q			
	* 6.1220	* 6.1395	* 6.5253	* 7.8579	* M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2019	* 1.0130	* 0.9681	* 1.0276	* 1.2834	* 1.0944	* 1.1948	* 0.6239
	* 1.5321	* 1.8849	* 2.0213	* 1.8539	* 1.4767	* 1.7203	* 1.5628	* 2.7128
9	* 1.0130	* 1.2448	* 1.1093	* 1.2729	* 1.0789	* 1.0791	* 1.1893	* 0.6228
	* 1.8849	* 1.5585	* 1.7568	* 1.5023	* 1.7630	* 1.7515	* 1.5770	* 2.7248
10	* 0.9681	* 1.1093	* 0.9547	* 0.9989	* 1.2498	* 1.0702	* 1.1577	* 0.5885
	* 2.0213	* 1.7567	* 2.0582	* 1.9471	* 1.5603	* 1.8185	* 1.6569	* 2.9045
11	* 1.0276	* 1.2729	* 0.9991	* 1.2429	* 0.9760	* 1.1780	* 1.0838	* 0.4990
	* 1.8539	* 1.5023	* 1.9467	* 1.5600	* 1.9770	* 1.6314	* 1.7797	* 3.5407
12	* 1.2834	* 1.0790	* 1.2499	* 0.9760	* 0.9832	* 1.0963	* 0.7219	
	* 1.4767	* 1.7629	* 1.5602	* 1.9769	* 1.8430	* 1.6878	* 2.4026	
13	* 1.0944	* 1.0791	* 1.0704	* 1.1781	* 1.0964	* 0.7529	* 0.3832	
	* 1.7203	* 1.7515	* 1.8182	* 1.6313	* 1.6877	* 2.2179	* 4.3792	
14	* 1.1948	* 1.1893	* 1.1579	* 1.0840	* 0.7219	* 0.3831		
	* 1.5628	* 1.5769	* 1.6566	* 1.7794	* 2.4020	* 4.3799		
15	* 0.6239	* 0.6227	* 0.5891	* 0.4994	* F-SUB-Q			
	* 2.7128	* 2.7245	* 2.9032	* 3.5395	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3153	1.2247	1.1840	1.2318	1.3979	1.3233	1.3544	0.7486
	1.4897	1.6150	1.6801	1.5706	1.3706	1.4436	1.4004	2.2945
9	1.2247	1.3692	1.3375	1.3803	1.2851	1.3106	1.3444	0.7419
	1.6150	1.4597	1.4821	1.4076	1.5024	1.4591	1.4182	2.3154
10	1.1840	1.3375	1.1716	1.1893	1.3128	1.2833	1.3380	0.7074
	1.6801	1.4821	1.7030	1.6645	1.5040	1.5251	1.4524	2.4518
11	1.2318	1.3803	1.1896	1.3490	1.1606	1.2491	1.2566	0.6032
	1.5706	1.4076	1.6641	1.4620	1.6928	1.5727	1.5603	2.9711
12	1.3979	1.2851	1.3129	1.1607	1.2264	1.2907	0.8616	
	1.3706	1.5023	1.5038	1.6927	1.5488	1.4745	2.0514	
13	1.3233	1.3107	1.2835	1.2493	1.2907	0.9298	0.4729	
	1.4436	1.4590	1.5248	1.5725	1.4744	1.8648	3.6280	
14	1.3544	1.3445	1.3382	1.2568	0.8617	0.4728		
	1.4004	1.4181	1.4521	1.5601	2.0508	3.6286		
15	0.7486	0.7417	0.7084	0.6037	F-SUB-Q			
	2.2945	2.3151	2.4501	2.9700	M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4758	1.3518	1.3114	1.3577	1.5764	1.4692	1.5377	0.8063
	1.3643	1.5004	1.5424	1.4485	1.2337	1.3169	1.2515	2.1635
9	1.3518	1.5462	1.4911	1.5511	1.4173	1.4619	1.5269	0.7985
	1.5004	1.3220	1.3508	1.2726	1.3840	1.3256	1.2675	2.1893
10	1.3114	1.4911	1.2977	1.3045	1.4657	1.4317	1.5218	0.7599
	1.5424	1.3509	1.5625	1.5425	1.3643	1.3855	1.2948	2.3170
11	1.3577	1.5511	1.3048	1.5133	1.2735	1.4011	1.4225	0.6493
	1.4485	1.2726	1.5421	1.3268	1.5737	1.4295	1.4029	2.8002
12	1.5764	1.4174	1.4659	1.2736	1.3738	1.4700	0.9310	
	1.2337	1.3840	1.3642	1.5737	1.4166	1.3249	1.9380	
13	1.4692	1.4619	1.4320	1.4012	1.4701	1.0217	0.5089	
	1.3169	1.3255	1.3852	1.4294	1.3249	1.7401	3.4485	
14	1.5377	1.5270	1.5221	1.4228	0.9311	0.5088		
	1.2515	1.2674	1.2945	1.4026	1.9374	3.4492		
15	0.8063	0.7982	0.7613	0.6499	F-SUB-Q			
	2.1635	2.1892	2.3143	2.7990	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5689	1.4176	1.3717	1.4239	1.6776	1.5456	1.6400	0.8444
	1.3154	1.4653	1.5018	1.4068	1.1801	1.2698	1.1935	2.1029
9	1.4176	1.6425	1.5681	1.6489	1.4880	1.5415	1.6283	0.8370
	1.4653	1.2722	1.3073	1.2189	1.3424	1.2785	1.2088	2.1232
10	1.3717	1.5681	1.3551	1.3658	1.5554	1.5118	1.6273	0.7976
	1.5018	1.3074	1.5232	1.4982	1.3101	1.3342	1.2300	2.2450
11	1.4239	1.6489	1.3662	1.6075	1.3353	1.4891	1.5234	0.6819
	1.4068	1.2188	1.4977	1.2765	1.5351	1.3743	1.3368	2.7082
12	1.6776	1.4880	1.5556	1.3354	1.4497	1.5701	0.9842	
	1.1801	1.3424	1.3100	1.5350	1.3743	1.2694	1.8751	
13	1.5456	1.5416	1.5121	1.4893	1.5702	1.0769	0.5309	
	1.2698	1.2784	1.3339	1.3741	1.2693	1.6914	3.3873	
14	1.6400	1.6285	1.6276	1.5237	0.9842	0.5308		
	1.1935	1.2088	1.2298	1.3365	1.8746	3.3879		
15	0.8444	0.8367	0.7991	0.6825	F-SUB-Q			
	2.1029	2.1232	2.2424	2.7070	M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6217	1.4553	1.4051	1.4633	1.7371	1.5952	1.7021	0.8716
	1.3016	1.4590	1.4960	1.3983	1.1636	1.2554	1.1734	2.0800
9	1.4553	1.6955	1.6119	1.7059	1.5306	1.5908	1.6901	0.8649
	1.4590	1.2531	1.2972	1.2026	1.3325	1.2637	1.1881	2.0958
10	1.4051	1.6119	1.3863	1.4026	1.6097	1.5630	1.6938	0.8261
	1.4960	1.2972	1.5184	1.4866	1.2925	1.3142	1.2033	2.2096
11	1.4633	1.7060	1.4030	1.6637	1.3733	1.5432	1.5879	0.7069
	1.3983	1.2026	1.4861	1.2584	1.5220	1.3507	1.3048	2.6562
12	1.7371	1.5307	1.6099	1.3735	1.4967	1.6316	1.0231	
	1.1636	1.3325	1.2924	1.5219	1.3627	1.2505	1.8429	
13	1.5952	1.5909	1.5634	1.5434	1.6316	1.1147	0.5467	
	1.2554	1.2636	1.3139	1.3505	1.2505	1.6765	3.3734	
14	1.7021	1.6902	1.6942	1.5883	1.0232	0.5465		
	1.1734	1.1880	1.2031	1.3045	1.8424	3.3740		
15	0.8716	0.8646	0.8276	0.7075	F-SUB-Q			
	2.0800	2.0958	2.2070	2.6550	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6721	1.4897	1.4360	1.5003	1.7962	1.6445	1.7657	0.8884
	1.2856	1.4494	1.4961	1.3973	1.1528	1.2469	1.1580	2.0901
9	1.4897	1.7474	1.6541	1.7621	1.5714	1.6399	1.7536	0.8821
	1.4494	1.2348	1.2919	1.1919	1.3294	1.2545	1.1716	2.1064
10	1.4360	1.6541	1.4162	1.4372	1.6638	1.6140	1.7612	0.8416
	1.4961	1.2919	1.5183	1.4824	1.2771	1.2980	1.1810	2.2163
11	1.5003	1.7621	1.4377	1.7196	1.4094	1.5993	1.6523	0.7192
	1.3973	1.1919	1.4819	1.2386	1.5095	1.3231	1.2710	2.6517
12	1.7962	1.5715	1.6641	1.4095	1.5435	1.6933	1.0455	
	1.1528	1.3294	1.2769	1.5094	1.3524	1.2331	1.8411	
13	1.6445	1.6401	1.6144	1.5995	1.6934	1.1381	0.5536	
	1.2469	1.2543	1.2977	1.3229	1.2330	1.6810	3.4103	
14	1.7657	1.7538	1.7616	1.6527	1.0456	0.5535		
	1.1580	1.1715	1.1807	1.2707	1.8406	3.4110		
15	0.8884	0.8817	0.8432	0.7199	F-SUB-Q			
	2.0901	2.1065	2.2137	2.6504	M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7005	1.5089	1.4530	1.5225	1.8327	1.6767	1.8072	0.9006
	1.2930	1.4643	1.5113	1.4155	1.1618	1.2568	1.1627	2.1190
9	1.5089	1.7770	1.6791	1.7958	1.5964	1.6722	1.7950	0.8948
	1.4643	1.2441	1.3029	1.2011	1.3449	1.2633	1.1749	2.1332
10	1.4530	1.6792	1.4325	1.4578	1.6971	1.6480	1.8063	0.8540
	1.5113	1.3028	1.5326	1.4946	1.2769	1.2996	1.1783	2.2383
11	1.5225	1.7959	1.4584	1.7540	1.4316	1.6346	1.6952	0.7294
	1.4155	1.2011	1.4940	1.2411	1.5185	1.3199	1.2658	2.6591
12	1.8327	1.5964	1.6974	1.4318	1.5741	1.7337	1.0634	
	1.1618	1.3448	1.2767	1.5184	1.3537	1.2289	1.8449	
13	1.6767	1.6724	1.6484	1.6348	1.7338	1.1559	0.5589	
	1.2568	1.2632	1.2993	1.3197	1.2289	1.6921	3.4427	
14	1.8072	1.7952	1.8067	1.6956	1.0634	0.5587		
	1.1627	1.1748	1.1781	1.2655	1.8444	3.4433		
15	0.9006	0.8944	0.8557	0.7301	F-SUB-Q			
	2.1190	2.1335	2.2356	2.6578	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7261	1.5245	1.4674	1.5411	1.8666	1.7054	1.8458	0.9081
	1.3190	1.4974	1.5366	1.4429	1.1774	1.2748	1.1745	2.1674
9	1.5245	1.8042	1.7013	1.8268	1.6178	1.7009	1.8337	0.9028
	1.4974	1.2530	1.3211	1.2171	1.3689	1.2802	1.1851	2.1789
10	1.4674	1.7015	1.4464	1.4751	1.7280	1.6781	1.8479	0.8611
	1.5366	1.3210	1.5581	1.5168	1.2859	1.3091	1.1827	2.2826
11	1.5411	1.8269	1.4758	1.7860	1.4504	1.6681	1.7341	0.7348
	1.4429	1.2170	1.5162	1.2537	1.5446	1.3292	1.2657	2.6996
12	1.8666	1.6178	1.7283	1.4506	1.6016	1.7711	1.0725	
	1.1774	1.3688	1.2857	1.5444	1.3742	1.2400	1.8825	
13	1.7054	1.7012	1.6785	1.6684	1.7712	1.1673	0.5610	
	1.2748	1.2801	1.3089	1.3290	1.2399	1.7272	3.5265	
14	1.8458	1.8339	1.8483	1.7345	1.0726	0.5609		
	1.1745	1.1850	1.1825	1.2655	1.8820	3.5272		
15	0.9081	0.9023	0.8628	0.7355	F-SUB-Q			
	2.1674	2.1793	2.2798	2.6983	M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7114	1.5141	1.4577	1.5334	1.8571	1.7026	1.8399	0.9152
	1.3704	1.5491	1.5980	1.5019	1.2263	1.3224	1.2201	2.2260
9	1.5141	1.7894	1.6919	1.8149	1.6110	1.6981	1.8281	0.9105
	1.5491	1.3025	1.3724	1.2677	1.4235	1.3270	1.2295	2.2342
10	1.4577	1.6922	1.4363	1.4686	1.7185	1.6768	1.8454	0.8730
	1.5980	1.3722	1.6203	1.5730	1.3328	1.3498	1.2211	2.3237
11	1.5334	1.8150	1.4692	1.7764	1.4448	1.6631	1.7315	0.7459
	1.5019	1.2677	1.5723	1.2942	1.5897	1.3671	1.3018	2.7361
12	1.8571	1.6110	1.7188	1.4450	1.5979	1.7665	1.0887	
	1.2263	1.4235	1.3326	1.5895	1.4274	1.2870	1.9070	
13	1.7026	1.6983	1.6772	1.6634	1.7666	1.1794	0.5673	
	1.3224	1.3268	1.3495	1.3669	1.2869	1.7730	3.6071	
14	1.8399	1.8283	1.8458	1.7319	1.0888	0.5671		
	1.2201	1.2294	1.2208	1.3015	1.9065	3.6078		
15	0.9152	0.9101	0.8746	0.7466	F-SUB-Q			
	2.2260	2.2344	2.3211	2.7349	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7380	* 1.5276	* 1.4702	* 1.5498	* 1.8929	* 1.7305	* 1.8821	* 0.9134 *
	* 1.3974	* 1.5911	* 1.6435	* 1.5453	* 1.2513	* 1.3525	* 1.2398	* 2.3160 *
9	* 1.5276	* 1.8185	* 1.7133	* 1.8475	* 1.6300	* 1.7261	* 1.8704	* 0.9090 *
	* 1.5911	* 1.3298	* 1.4058	* 1.2941	* 1.4625	* 1.3561	* 1.2479	* 2.3222 *
10	* 1.4702	* 1.7137	* 1.4483	* 1.4824	* 1.7504	* 1.7062	* 1.8900	* 0.8684 *
	* 1.6435	* 1.4055	* 1.6672	* 1.6156	* 1.3550	* 1.3734	* 1.2337	* 2.4198 *
11	* 1.5498	* 1.8476	* 1.4831	* 1.8096	* 1.4610	* 1.6988	* 1.7729	* 0.7398 *
	* 1.5453	* 1.2940	* 1.6148	* 1.3149	* 1.6241	* 1.3834	* 1.3145	* 2.8501 *
12	* 1.8929	* 1.6300	* 1.7507	* 1.4611	* 1.6249	* 1.8064	* 1.0842	*
	* 1.2513	* 1.4625	* 1.3547	* 1.6239	* 1.4460	* 1.2964	* 1.9741	*
13	* 1.7305	* 1.7264	* 1.7065	* 1.6990	* 1.8065	* 1.1785	* 0.5614	*
	* 1.3525	* 1.3559	* 1.3731	* 1.3832	* 1.2963	* 1.8269	* 3.7436	*
14	* 1.8821	* 1.8707	* 1.8905	* 1.7733	* 1.0843	* 0.5612	*	*
	* 1.2398	* 1.2477	* 1.2334	* 1.3142	* 1.9735	* 3.7443	*	*
15	* 0.9134	* 0.9085	* 0.8701	* 0.7406	* F-SUB-Q			
	* 2.3160	* 2.3227	* 2.4168	* 2.8487	* M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7358	* 1.5225	* 1.4656	* 1.5474	* 1.8972	* 1.7352	* 1.8917	* 0.9119 *
	* 1.4032	* 1.5966	* 1.6490	* 1.5586	* 1.2729	* 1.3922	* 1.2767	* 2.4101 *
9	* 1.5225	* 1.8173	* 1.7118	* 1.8492	* 1.6288	* 1.7309	* 1.8802	* 0.9080 *
	* 1.5966	* 1.3344	* 1.4141	* 1.3070	* 1.4821	* 1.3971	* 1.2865	* 2.4180 *
10	* 1.4656	* 1.7122	* 1.4431	* 1.4793	* 1.7533	* 1.7123	* 1.9024	* 0.8680 *
	* 1.6490	* 1.4138	* 1.6758	* 1.6346	* 1.3817	* 1.4172	* 1.2731	* 2.5149 *
11	* 1.5474	* 1.8494	* 1.4801	* 1.8126	* 1.4595	* 1.7060	* 1.7839	* 0.7389 *
	* 1.5586	* 1.3069	* 1.6338	* 1.3427	* 1.6673	* 1.4282	* 1.3553	* 2.9558 *
12	* 1.8972	* 1.6288	* 1.7536	* 1.4597	* 1.6292	* 1.8157	* 1.0855	*
	* 1.2728	* 1.4821	* 1.3814	* 1.6671	* 1.4954	* 1.3371	* 2.0438	*
13	* 1.7352	* 1.7311	* 1.7127	* 1.7063	* 1.8158	* 1.1788	* 0.5589	*
	* 1.3922	* 1.3969	* 1.4169	* 1.4280	* 1.3371	* 1.8913	* 3.8886	*
14	* 1.8917	* 1.8804	* 1.9028	* 1.7844	* 1.0856	* 0.5587	*	*
	* 1.2767	* 1.2863	* 1.2728	* 1.3550	* 2.0432	* 3.8894	*	*
15	* 0.9119	* 0.9075	* 0.8697	* 0.7396	* F-SUB-Q			
	* 2.4101	* 2.4185	* 2.5118	* 2.9544	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7076	1.5002	1.4450	1.5274	1.8729	1.7192	1.8721	0.9096
	1.3942	1.5815	1.6315	1.5411	1.2588	1.3721	1.2597	2.3599
9	1.5002	1.7887	1.6894	1.8229	1.6093	1.7148	1.8610	0.9061
	1.5815	1.3231	1.3983	1.2938	1.4639	1.3767	1.2687	2.3654
10	1.4450	1.6898	1.4220	1.4608	1.7306	1.6975	1.8856	0.8703
	1.6315	1.3979	1.6591	1.6150	1.3672	1.3959	1.2574	2.4547
11	1.5274	1.8231	1.4616	1.7884	1.4419	1.6872	1.7676	0.7417
	1.5411	1.2937	1.6141	1.3291	1.6481	1.4109	1.3454	2.8976
12	1.8729	1.6093	1.7309	1.4421	1.6129	1.7972	1.0888	
	1.2588	1.4639	1.3669	1.6479	1.4929	1.3374	2.0093	
13	1.7192	1.7151	1.6979	1.6875	1.7973	1.1786	0.5586	
	1.3721	1.3764	1.3956	1.4106	1.3373	1.8776	3.8784	
14	1.8721	1.8612	1.8861	1.7680	1.0888	0.5585		
	1.2597	1.2685	1.2571	1.3451	2.0088	3.8792		
15	0.9096	0.9056	0.8719	0.7425	F-SUB-Q			
	2.3599	2.3657	2.4519	2.8962	M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7145	1.4978	1.4426	1.5274	1.8875	1.7291	1.8947	0.8985
	1.3565	1.5438	1.5904	1.5018	1.2203	1.3335	1.2166	2.3222
9	1.4978	1.7978	1.6928	1.8345	1.6104	1.7258	1.8838	0.8957
	1.5438	1.2836	1.3604	1.2542	1.4271	1.3377	1.2249	2.3263
10	1.4426	1.6933	1.4191	1.4586	1.7432	1.7093	1.9107	0.8572
	1.5904	1.3600	1.6175	1.5751	1.3252	1.3547	1.2127	2.4221
11	1.5274	1.8347	1.4594	1.8007	1.4438	1.7039	1.7905	0.7283
	1.5018	1.2540	1.5743	1.2886	1.6068	1.3644	1.2972	2.8650
12	1.8875	1.6104	1.7435	1.4440	1.6227	1.8178	1.0730	
	1.2203	1.4271	1.3250	1.6066	1.4496	1.2914	1.9852	
13	1.7291	1.7262	1.7097	1.7042	1.8179	1.1658	0.5473	
	1.3335	1.3374	1.3544	1.3641	1.2913	1.8527	3.8379	
14	1.8947	1.8841	1.9111	1.7909	1.0731	0.5471		
	1.2166	1.2248	1.2124	1.2969	1.9847	3.8387		
15	0.8985	0.8951	0.8589	0.7290	F-SUB-Q			
	2.3222	2.3270	2.4190	2.8635	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6992	1.4813	1.4268	1.5129	1.8771	1.7207	1.8914	0.8871
	1.3076	1.4915	1.5369	1.4493	1.1729	1.2822	1.1660	2.2501
9	1.4813	1.7832	1.6783	1.8221	1.5962	1.7182	1.8809	0.8849
	1.4915	1.2362	1.3113	1.2066	1.3763	1.2860	1.1737	2.2526
10	1.4268	1.6789	1.4029	1.4438	1.7330	1.7025	1.9098	0.8466
	1.5369	1.3109	1.5638	1.5209	1.2743	1.3008	1.1604	2.3453
11	1.5129	1.8223	1.4446	1.7894	1.4318	1.6978	1.7890	0.7186
	1.4493	1.2065	1.5201	1.2383	1.5476	1.3076	1.2405	2.7752
12	1.8771	1.5961	1.7333	1.4320	1.6144	1.8140	1.0607	
	1.1729	1.3763	1.2741	1.5474	1.3959	1.2381	1.9173	
13	1.7207	1.7185	1.7029	1.6981	1.8141	1.1534	0.5380	
	1.2822	1.2858	1.3005	1.3073	1.2380	1.7877	3.7262	
14	1.8914	1.8812	1.9103	1.7895	1.0608	0.5379		
	1.1660	1.1735	1.1601	1.2402	1.9168	3.7270		
15	0.8871	0.8843	0.8483	0.7194	F-SUB-Q			
	2.2501	2.2533	2.3422	2.7737	M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6713	1.4556	1.4029	1.4886	1.8520	1.7000	1.8710	0.8750
	1.2741	1.4550	1.4993	1.4129	1.1401	1.2450	1.1306	2.1901
9	1.4556	1.7552	1.6532	1.7950	1.5719	1.6980	1.8608	0.8731
	1.4550	1.2039	1.2767	1.1743	1.3405	1.2485	1.1378	2.1912
10	1.4029	1.6537	1.3789	1.4199	1.7089	1.6828	1.8912	0.8368
	1.4993	1.2762	1.5260	1.4826	1.2388	1.2617	1.1229	2.2767
11	1.4886	1.7952	1.4208	1.7641	1.4102	1.6776	1.7705	0.7097
	1.4129	1.1742	1.4818	1.2034	1.5055	1.2673	1.2006	2.6950
12	1.8520	1.5718	1.7093	1.4104	1.5940	1.7940	1.0494	
	1.1401	1.3405	1.2386	1.5053	1.3532	1.1980	1.8560	
13	1.7000	1.6984	1.6831	1.6780	1.7941	1.1397	0.5302	
	1.2450	1.2482	1.2614	1.2670	1.1979	1.7313	3.6216	
14	1.8710	1.8611	1.8916	1.7710	1.0495	0.5300		
	1.1306	1.1376	1.1227	1.2003	1.8555	3.6223		
15	0.8750	0.8725	0.8385	0.7104	F-SUB-Q			
	2.1901	2.1919	2.2737	2.6935	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6258	* 1.4189	* 1.3687	* 1.4529	* 1.8062	* 1.6641	* 1.8287	* 0.8621
	* 1.3588	* 1.5494	* 1.5972	* 1.5047	* 1.2146	* 1.3218	* 1.2019	* 2.3120
9	* 1.4189	* 1.7087	* 1.6137	* 1.7484	* 1.5357	* 1.6622	* 1.8188	* 0.8604
	* 1.5494	* 1.2846	* 1.3590	* 1.2527	* 1.4260	* 1.3246	* 1.2093	* 2.3126
10	* 1.3687	* 1.6143	* 1.3445	* 1.3863	* 1.6660	* 1.6475	* 1.8504	* 0.8280
	* 1.5972	* 1.3584	* 1.6265	* 1.5780	* 1.3198	* 1.3383	* 1.1914	* 2.3921
11	* 1.4529	* 1.7486	* 1.3871	* 1.7194	* 1.3775	* 1.6386	* 1.7313	* 0.7033
	* 1.5047	* 1.2525	* 1.5770	* 1.2813	* 1.5995	* 1.3464	* 1.2738	* 2.8255
12	* 1.8062	* 1.5357	* 1.6664	* 1.3777	* 1.5586	* 1.7534	* 1.0393	
	* 1.2146	* 1.4260	* 1.3195	* 1.5993	* 1.4332	* 1.2694	* 1.9438	
13	* 1.6641	* 1.6626	* 1.6478	* 1.6389	* 1.7535	* 1.1256	* 0.5234	
	* 1.3218	* 1.3243	* 1.3380	* 1.3461	* 1.2693	* 1.8156	* 3.8058	
14	* 1.8287	* 1.8191	* 1.8508	* 1.7317	* 1.0393	* 0.5232		
	* 1.2019	* 1.2092	* 1.1911	* 1.2735	* 1.9433	* 3.8066		
15	* 0.8621	* 0.8598	* 0.8296	* 0.7040	F-SUB-Q			
	* 2.3120	* 2.3133	* 2.3892	* 2.8240	M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6132	* 1.4003	* 1.3508	* 1.4351	* 1.7974	* 1.6518	* 1.8268	* 0.8384
	* 1.3080	* 1.5040	* 1.5563	* 1.4663	* 1.1745	* 1.2825	* 1.1583	* 2.2924
9	* 1.4003	* 1.6979	* 1.5985	* 1.7380	* 1.5172	* 1.6506	* 1.8172	* 0.8376
	* 1.5040	* 1.2403	* 1.3184	* 1.2114	* 1.3891	* 1.2836	* 1.1646	* 2.2899
10	* 1.3508	* 1.5992	* 1.3266	* 1.3670	* 1.6562	* 1.6363	* 1.8490	* 0.8023
	* 1.5563	* 1.3178	* 1.5846	* 1.5385	* 1.2748	* 1.2950	* 1.1449	* 2.3774
11	* 1.4351	* 1.7382	* 1.3679	* 1.7095	* 1.3607	* 1.6339	* 1.7285	* 0.6789
	* 1.4663	* 1.2113	* 1.5375	* 1.2350	* 1.5520	* 1.2943	* 1.2228	* 2.8147
12	* 1.7974	* 1.5171	* 1.6566	* 1.3609	* 1.5474	* 1.7496	* 1.0068	
	* 1.1745	* 1.3892	* 1.2745	* 1.5517	* 1.3753	* 1.2137	* 1.9207	
13	* 1.6518	* 1.6511	* 1.6367	* 1.6343	* 1.7497	* 1.0966	* 0.5047	
	* 1.2825	* 1.2833	* 1.2947	* 1.2940	* 1.2136	* 1.7775	* 3.7808	
14	* 1.8268	* 1.8174	* 1.8495	* 1.7290	* 1.0068	* 0.5046		
	* 1.1583	* 1.1644	* 1.1446	* 1.2225	* 1.9202	* 3.7817		
15	* 0.8384	* 0.8370	* 0.8039	* 0.6797	F-SUB-Q			
	* 2.2924	* 2.2909	* 2.3741	* 2.8131	M-SUB-Q			

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5698	* 1.3629	* 1.3159	* 1.3976	* 1.7530	* 1.6142	* 1.7859	* 0.8147
	* 1.2871	* 1.4824	* 1.5346	* 1.4463	* 1.1563	* 1.2604	* 1.1377	* 2.2687
9	* 1.3629	* 1.6545	* 1.5597	* 1.6934	* 1.4784	* 1.6132	* 1.7766	* 0.8143
	* 1.4824	* 1.2214	* 1.2974	* 1.1938	* 1.3693	* 1.2610	* 1.1437	* 2.2645
10	* 1.3159	* 1.5604	* 1.2922	* 1.3307	* 1.6142	* 1.5989	* 1.8079	* 0.7800
	* 1.5346	* 1.2969	* 1.5627	* 1.5181	* 1.2556	* 1.2721	* 1.1235	* 2.3507
11	* 1.3976	* 1.6936	* 1.3316	* 1.6668	* 1.3252	* 1.5942	* 1.6879	* 0.6592
	* 1.4463	* 1.1937	* 1.5171	* 1.2153	* 1.5289	* 1.2726	* 1.2011	* 2.7862
12	* 1.7530	* 1.4784	* 1.6146	* 1.3253	* 1.5113	* 1.7094	* 0.9789	
	* 1.1563	* 1.3693	* 1.2554	* 1.5287	* 1.3461	* 1.1889	* 1.8952	
13	* 1.6142	* 1.6136	* 1.5992	* 1.5946	* 1.7095	* 1.0682	* 0.4896	
	* 1.2604	* 1.2607	* 1.2718	* 1.2723	* 1.1888	* 1.7470	* 3.7415	
14	* 1.7859	* 1.7769	* 1.8084	* 1.6884	* 0.9789	* 0.4894		
	* 1.1377	* 1.1435	* 1.1232	* 1.2008	* 1.8947	* 3.7424		
15	* 0.8147	* 0.8137	* 0.7816	* 0.6599	* F-SUB-Q			
	* 2.2687	* 2.2655	* 2.3474	* 2.7845	* M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4897	* 1.3034	* 1.2610	* 1.3371	* 1.6663	* 1.5466	* 1.6980	* 0.7897
	* 1.3090	* 1.4967	* 1.5475	* 1.4608	* 1.1749	* 1.2705	* 1.1556	* 2.2638
9	* 1.3034	* 1.5717	* 1.4927	* 1.6077	* 1.4158	* 1.5452	* 1.6894	* 0.7892
	* 1.4967	* 1.2415	* 1.3096	* 1.2147	* 1.3813	* 1.2707	* 1.1615	* 2.2598
10	* 1.2610	* 1.4934	* 1.2386	* 1.2741	* 1.5343	* 1.5306	* 1.7188	* 0.7601
	* 1.5475	* 1.3089	* 1.5755	* 1.5314	* 1.2758	* 1.2827	* 1.1405	* 2.3326
11	* 1.3371	* 1.6079	* 1.2750	* 1.5854	* 1.2681	* 1.5129	* 1.6017	* 0.6432
	* 1.4608	* 1.2145	* 1.5304	* 1.2336	* 1.5423	* 1.2944	* 1.2214	* 2.7609
12	* 1.6663	* 1.4157	* 1.5346	* 1.2683	* 1.4463	* 1.6257	* 0.9537	
	* 1.1749	* 1.3814	* 1.2755	* 1.5421	* 1.3557	* 1.2047	* 1.8779	
13	* 1.5466	* 1.5456	* 1.5310	* 1.5132	* 1.6257	* 1.0385	* 0.4778	
	* 1.2705	* 1.2703	* 1.2824	* 1.2941	* 1.2047	* 1.7328	* 3.7046	
14	* 1.6980	* 1.6897	* 1.7193	* 1.6021	* 0.9538	* 0.4776		
	* 1.1556	* 1.1613	* 1.1402	* 1.2211	* 1.8775	* 3.7056		
15	* 0.7897	* 0.7886	* 0.7616	* 0.6439	* F-SUB-Q			
	* 2.2638	* 2.2607	* 2.3298	* 2.7593	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4307	1.2561	1.2154	1.2879	1.6006	1.4925	1.6336	0.7499
	1.3246	1.5096	1.5614	1.4747	1.1888	1.2794	1.1673	2.3206
9	1.2561	1.5083	1.4397	1.5436	1.3643	1.4918	1.6255	0.7493
	1.5096	1.2575	1.3197	1.2296	1.3936	1.2793	1.1729	2.3165
10	1.2154	1.4404	1.1946	1.2276	1.4759	1.4776	1.6522	0.7186
	1.5614	1.3190	1.5886	1.5465	1.2889	1.2909	1.1524	2.4011
11	1.2879	1.5438	1.2284	1.5252	1.2234	1.4533	1.5369	0.6050
	1.4747	1.2295	1.5454	1.2457	1.5534	1.3089	1.2363	2.8563
12	1.6006	1.3642	1.4762	1.2236	1.3978	1.5640	0.9001	
	1.1888	1.3937	1.2886	1.5532	1.3616	1.2155	1.9340	
13	1.4925	1.4922	1.4779	1.4536	1.5641	0.9862	0.4511	
	1.2794	1.2790	1.2907	1.3086	1.2155	1.7726	3.8180	
14	1.6336	1.6258	1.6526	1.5373	0.9002	0.4510		
	1.1673	1.1727	1.1521	1.2360	1.9335	3.8190		
15	0.7499	0.7487	0.7201	0.6057	F-SUB-Q			
	2.3206	2.3175	2.3979	2.8545	M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3275	1.1722	1.1197	1.1976	1.4693	1.3758	1.4902	0.7011
	1.3960	1.5821	1.6583	1.5511	1.2658	1.3569	1.2511	2.4310
9	1.1722	1.3855	1.3263	1.4201	1.2698	1.3749	1.4827	0.7002
	1.5821	1.3387	1.4012	1.3072	1.4642	1.3568	1.2573	2.4283
10	1.1197	1.3269	1.1013	1.1467	1.3683	1.3642	1.5078	0.6704
	1.6583	1.4005	1.6862	1.6196	1.3594	1.3669	1.2344	2.5213
11	1.1976	1.4203	1.1474	1.4108	1.1468	1.3432	1.4103	0.5612
	1.5511	1.3070	1.6186	1.3167	1.6205	1.3843	1.3172	3.0169
12	1.4693	1.2697	1.3686	1.1469	1.2923	1.4314	0.8414	
	1.2658	1.4643	1.3591	1.6203	1.4397	1.2981	2.0246	
13	1.3758	1.3752	1.3645	1.3434	1.4315	0.9114	0.4174	
	1.3569	1.3565	1.3666	1.3841	1.2980	1.8764	4.0442	
14	1.4902	1.4829	1.5081	1.4106	0.8415	0.4172		
	1.2511	1.2571	1.2342	1.3169	2.0242	4.0453		
15	0.7011	0.6998	0.6717	0.5618	F-SUB-Q			
	2.4310	2.4292	2.5182	3.0150	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 50 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2660	* 0.9805	* 0.9064	* 0.9926	* 1.3374	* 1.1144	* 1.3147	* 0.5905
	* 1.4397	* 1.8608	* 2.0168	* 1.8415	* 1.3676	* 1.6478	* 1.3945	* 2.8459
9	* 0.9805	* 1.2641	* 1.0871	* 1.3092	* 1.0588	* 1.1141	* 1.3105	* 0.5939
	* 1.8608	* 1.4428	* 1.6812	* 1.3953	* 1.7279	* 1.6475	* 1.3988	* 2.8225
10	* 0.9064	* 1.0877	* 0.8874	* 0.9608	* 1.2957	* 1.1077	* 1.2918	* 0.5648
	* 2.0168	* 1.6803	* 2.0602	* 1.9015	* 1.4118	* 1.6558	* 1.4180	* 2.9502
11	* 0.9926	* 1.3094	* 0.9614	* 1.3005	* 0.9685	* 1.2768	* 1.2043	* 0.4693
	* 1.8415	* 1.3951	* 1.9005	* 1.4049	* 1.8878	* 1.4320	* 1.5181	* 3.5581
12	* 1.3374	* 1.0588	* 1.2960	* 0.9686	* 1.0615	* 1.2246	* 0.7196	
	* 1.3676	* 1.7280	* 1.4115	* 1.8876	* 1.7245	* 1.4930	* 2.3325	
13	* 1.1144	* 1.1143	* 1.1079	* 1.2770	* 1.2247	* 0.7533	* 0.3440	
	* 1.6478	* 1.6471	* 1.6555	* 1.4318	* 1.4930	* 2.2365	* 4.8423	
14	* 1.3147	* 1.3107	* 1.2921	* 1.2046	* 0.7196	* 0.3439		
	* 1.3945	* 1.3987	* 1.4177	* 1.5177	* 2.3320	* 4.8434		
15	* 0.5905	* 0.5935	* 0.5654	* 0.4698	* F-SUB-Q			
	* 2.8459	* 2.8232	* 2.9490	* 3.5562	* M-SUB-Q			

AT 100% POWER, 50 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4952	* 0.4191	* 0.3917	* 0.4316	* 0.5165	* 0.4350	* 0.4726	* 0.2457
	* 3.6470	* 4.3130	* 4.6219	* 4.1958	* 3.5074	* 4.1769	* 3.8429	* 6.7862
9	* 0.4191	* 0.4867	* 0.4290	* 0.5022	* 0.4478	* 0.4341	* 0.4708	* 0.2462
	* 4.3130	* 3.7139	* 4.2200	* 3.6039	* 4.0466	* 4.1837	* 3.8572	* 6.7546
10	* 0.3917	* 0.4292	* 0.3833	* 0.4209	* 0.5039	* 0.4347	* 0.4612	* 0.2367
	* 4.6219	* 4.2182	* 4.7246	* 4.3014	* 3.5938	* 4.1703	* 3.9350	* 6.9856
11	* 0.4316	* 0.5023	* 0.4211	* 0.4874	* 0.4232	* 0.4882	* 0.4300	* 0.2008
	* 4.1958	* 3.6033	* 4.2996	* 3.7134	* 4.2803	* 3.7108	* 4.2148	* 8.2568
12	* 0.5165	* 0.4478	* 0.5040	* 0.4233	* 0.4112	* 0.4402	* 0.2968	
	* 3.5074	* 4.0466	* 3.5932	* 4.2799	* 4.4084	* 4.1163	* 5.6096	
13	* 0.4350	* 0.4342	* 0.4348	* 0.4883	* 0.4402	* 0.3049	* 0.1503	
	* 4.1769	* 4.1828	* 4.1696	* 3.7103	* 4.1161	* 5.4798	* 11.0039	
14	* 0.4726	* 0.4708	* 0.4612	* 0.4301	* 0.2969	* 0.1502		
	* 3.8429	* 3.8569	* 3.9342	* 4.2140	* 5.6083	* 11.0058		
15	* 0.2457	* 0.2462	* 0.2368	* 0.2009	* F-SUB-Q			
	* 6.7862	* 6.7548	* 6.9860	* 8.2542	* M-SUB-Q			

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4230	* 0.4196	* 0.4154	* 0.4458	* 0.5103	* 0.4419	* 0.4504	* 0.2547
	* 3.6814	* 4.2544	* 4.5391	* 4.1079	* 3.5630	* 4.0912	* 3.9806	* 6.3628
9	* 0.4196	* 0.4871	* 0.4421	* 0.5039	* 0.4601	* 0.4377	* 0.4484	* 0.2543
	* 4.2544	* 3.8163	* 4.2471	* 3.6528	* 3.9737	* 4.1487	* 4.0166	* 6.3746
10	* 0.4154	* 0.4422	* 0.4090	* 0.4359	* 0.4991	* 0.4355	* 0.4365	* 0.2427
	* 4.5391	* 4.2464	* 4.6130	* 4.2966	* 3.7583	* 4.2974	* 4.2288	* 6.7496
11	* 0.4458	* 0.5039	* 0.4360	* 0.4796	* 0.4270	* 0.4673	* 0.4113	* 0.2102
	* 4.1079	* 3.6526	* 4.2958	* 3.8691	* 4.3290	* 3.9429	* 4.5379	* 8.0634
12	* 0.5103	* 0.4602	* 0.4992	* 0.4271	* 0.3837	* 0.4033	* 0.2931	
	* 3.5630	* 3.9736	* 3.7579	* 4.3288	* 4.3775	* 4.2868	* 5.6563	
13	* 0.4419	* 0.4377	* 0.4356	* 0.4673	* 0.4033	* 0.2905	* 0.1626	
	* 4.0912	* 4.1485	* 4.2969	* 3.9426	* 4.2867	* 5.3118	* 9.8215	
14	* 0.4504	* 0.4484	* 0.4366	* 0.4114	* 0.2931	* 0.1626		
	* 3.9806	* 4.0163	* 4.2282	* 4.5373	* 5.6549	* 9.8229		
15	* 0.2547	* 0.2543	* 0.2429	* 0.2104	* F-SUB-Q			
	* 6.3628	* 6.3735	* 6.7461	* 8.0615	* M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1074	* 0.9358	* 0.8931	* 0.9539	* 1.1868	* 1.0207	* 1.1179	* 0.5904
	* 1.6227	* 1.9888	* 2.1553	* 1.9622	* 1.5689	* 1.8106	* 1.6402	* 2.8081
9	* 0.9358	* 1.1421	* 1.0248	* 1.1763	* 1.0037	* 1.0080	* 1.1138	* 0.5900
	* 1.9888	* 1.6544	* 1.8717	* 1.5976	* 1.8615	* 1.8356	* 1.6534	* 2.8169
10	* 0.8931	* 1.0249	* 0.8817	* 0.9319	* 1.1620	* 1.0055	* 1.0900	* 0.5592
	* 2.1553	* 1.8715	* 2.1913	* 2.0523	* 1.6481	* 1.9003	* 1.7276	* 2.9937
11	* 0.9539	* 1.1764	* 0.9321	* 1.1600	* 0.9182	* 1.1084	* 1.0283	* 0.4779
	* 1.9622	* 1.5975	* 2.0519	* 1.6327	* 2.0538	* 1.6963	* 1.8347	* 3.6194
12	* 1.1868	* 1.0037	* 1.1621	* 0.9182	* 0.9273	* 1.0385	* 0.6863	
	* 1.5689	* 1.8615	* 1.6479	* 2.0537	* 1.9042	* 1.7452	* 2.4684	
13	* 1.0207	* 1.0081	* 1.0056	* 1.1085	* 1.0385	* 0.7124	* 0.3694	
	* 1.8106	* 1.8355	* 1.9000	* 1.6962	* 1.7452	* 2.2897	* 4.4364	
14	* 1.1179	* 1.1139	* 1.0902	* 1.0285	* 0.6863	* 0.3693		
	* 1.6402	* 1.6533	* 1.7273	* 1.8344	* 2.4678	* 4.4372		
15	* 0.5904	* 0.5899	* 0.5598	* 0.4782	* F-SUB-Q			
	* 2.8081	* 2.8166	* 2.9924	* 3.6185	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2714	1.1516	1.1005	1.1645	1.3535	1.2500	1.2971	0.7215
	1.5010	1.6741	1.7783	1.6329	1.3908	1.5012	1.4358	2.3329
9	1.1516	1.3090	1.2520	1.3360	1.2186	1.2419	1.2899	0.7163
	1.6741	1.4823	1.5588	1.4287	1.5567	1.5100	1.4533	2.3491
10	1.1005	1.2520	1.0906	1.1311	1.2842	1.2252	1.2947	0.6847
	1.7783	1.5587	1.8011	1.7189	1.5106	1.5681	1.4759	2.4812
11	1.1645	1.3361	1.1313	1.3174	1.1153	1.2313	1.2289	0.5884
	1.6329	1.4286	1.7185	1.4643	1.7257	1.5585	1.5622	2.9830
12	1.3535	1.2186	1.2844	1.1154	1.1739	1.2538	0.8392	
	1.3908	1.5567	1.5104	1.7256	1.5865	1.4904	2.0589	
13	1.2500	1.2420	1.2253	1.2314	1.2538	0.8904	0.4614	
	1.5012	1.5100	1.5679	1.5584	1.4904	1.9036	3.6348	
14	1.2971	1.2900	1.2949	1.2291	0.8392	0.4613		
	1.4358	1.4532	1.4757	1.5619	2.0583	3.6355		
15	0.7215	0.7161	0.6856	0.5889	F-SUB-Q			
	2.3329	2.3489	2.4800	2.9822	M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4570	1.2855	1.2269	1.2981	1.5474	1.4009	1.4893	0.7878
	1.3480	1.5388	1.6214	1.4888	1.2343	1.3528	1.2690	2.1699
9	1.2855	1.4963	1.4062	1.5257	1.3610	1.3995	1.4820	0.7807
	1.5388	1.3261	1.4102	1.2709	1.4162	1.3602	1.2834	2.1899
10	1.2269	1.4061	1.2150	1.2579	1.4659	1.3830	1.4923	0.7459
	1.6214	1.4102	1.6434	1.5707	1.3420	1.4101	1.2986	2.3122
11	1.2981	1.5258	1.2582	1.5055	1.2432	1.4133	1.4153	0.6417
	1.4888	1.2709	1.5703	1.3062	1.5810	1.3848	1.3816	2.7754
12	1.5474	1.3611	1.4660	1.2433	1.3298	1.4465	0.9217	
	1.2343	1.4162	1.3418	1.5809	1.4360	1.3221	1.9147	
13	1.4009	1.3996	1.3833	1.4135	1.4465	0.9877	0.5019	
	1.3528	1.3601	1.4098	1.3847	1.3221	1.7607	3.4203	
14	1.4893	1.4821	1.4925	1.4155	0.9218	0.5018		
	1.2690	1.2833	1.2984	1.3814	1.9142	3.4209		
15	0.7878	0.7805	0.7472	0.6423	F-SUB-Q			
	2.1699	2.1898	2.3097	2.7743	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 20 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5626	1.3557	1.2884	1.3705	1.6577	1.4850	1.5972	0.8319
	1.2886	1.4952	1.5725	1.4365	1.1732	1.2983	1.2037	2.0919
9	1.3557	1.5985	1.4850	1.6334	1.4378	1.4830	1.5898	0.8259
	1.4952	1.2702	1.3591	1.2086	1.3651	1.3056	1.2165	2.1065
10	1.2884	1.4850	1.2747	1.3272	1.5725	1.4706	1.6077	0.7894
	1.5725	1.3591	1.5948	1.5142	1.2733	1.3476	1.2249	2.2221
11	1.3705	1.6334	1.3275	1.6137	1.3148	1.5250	1.5293	0.6799
	1.4365	1.2086	1.5138	1.2467	1.5300	1.3122	1.3063	2.6608
12	1.6577	1.4378	1.5726	1.3149	1.4135	1.5583	0.9835	
	1.1732	1.3651	1.2731	1.5299	1.3842	1.2574	1.8370	
13	1.4850	1.4831	1.4709	1.5252	1.5583	1.0482	0.5279	
	1.2983	1.3055	1.3473	1.3121	1.2573	1.7013	3.3352	
14	1.5972	1.5899	1.6080	1.5296	0.9836	0.5278		
	1.2037	1.2164	1.2247	1.3060	1.8366	3.3358		
15	0.8319	0.8256	0.7908	0.6805	F-SUB-Q			
	2.0919	2.1065	2.2197	2.6597	M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 19 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6233	1.3965	1.3231	1.4137	1.7237	1.5372	1.6636	0.8630
	1.2706	1.4864	1.5624	1.4226	1.1526	1.2801	1.1794	2.0593
9	1.3965	1.6572	1.5304	1.6971	1.4845	1.5366	1.6562	0.8584
	1.4864	1.2534	1.3443	1.1876	1.3497	1.2870	1.1881	2.0694
10	1.3231	1.5304	1.3078	1.3696	1.6381	1.5263	1.6811	0.8221
	1.5624	1.3443	1.5853	1.4955	1.2464	1.3220	1.1933	2.1761
11	1.4137	1.6971	1.3700	1.6797	1.3600	1.5957	1.6028	0.7092
	1.4226	1.1875	1.4951	1.2237	1.5092	1.2797	1.2700	2.5944
12	1.7237	1.4845	1.6383	1.3601	1.4660	1.6286	1.0286	
	1.1526	1.3497	1.2462	1.5091	1.3686	1.2332	1.7977	
13	1.5372	1.5368	1.5267	1.5959	1.6287	1.0904	0.5467	
	1.2801	1.2868	1.3217	1.2795	1.2331	1.6808	3.3086	
14	1.6636	1.6564	1.6814	1.6031	1.0287	0.5466		
	1.1794	1.1880	1.1931	1.2698	1.7972	3.3092		
15	0.8630	0.8581	0.8235	0.7098	F-SUB-Q			
	2.0593	2.0695	2.1739	2.5934	M-SUB-Q			

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6806	* 1.4326	* 1.3541	* 1.4525	* 1.7875	* 1.5868	* 1.7294	* 0.8828
	* 1.2539	* 1.4786	* 1.5606	* 1.4192	* 1.1392	* 1.2704	* 1.1604	* 2.0633
9	* 1.4326	* 1.7131	* 1.5726	* 1.7586	* 1.5272	* 1.5877	* 1.7251	* 0.8775
	* 1.4786	* 1.2354	* 1.3374	* 1.1736	* 1.3444	* 1.2763	* 1.1668	* 2.0741
10	* 1.3541	* 1.5727	* 1.3378	* 1.4075	* 1.7023	* 1.5796	* 1.7536	* 0.8405
	* 1.5606	* 1.3373	* 1.5823	* 1.4873	* 1.2248	* 1.3036	* 1.1683	* 2.1765
11	* 1.4525	* 1.7587	* 1.4079	* 1.7439	* 1.4010	* 1.6647	* 1.6744	* 0.7241
	* 1.4192	* 1.1736	* 1.4868	* 1.2004	* 1.4906	* 1.2485	* 1.2342	* 2.5853
12	* 1.7875	* 1.5272	* 1.7025	* 1.4012	* 1.5163	* 1.6971	* 1.0558	
	* 1.1392	* 1.3444	* 1.2246	* 1.4904	* 1.3568	* 1.2131	* 1.7904	
13	* 1.5868	* 1.5879	* 1.5799	* 1.6649	* 1.6972	* 1.1170	* 0.5560	
	* 1.2704	* 1.2762	* 1.3034	* 1.2483	* 1.2131	* 1.6829	* 3.3372	
14	* 1.7294	* 1.7252	* 1.7539	* 1.6747	* 1.0559	* 0.5559		
	* 1.1604	* 1.1667	* 1.1681	* 1.2339	* 1.7899	* 3.3379		
15	* 0.8828	* 0.8772	* 0.8420	* 0.7247	* F-SUB-Q			
	* 2.0633	* 2.0742	* 2.1740	* 2.5842	* M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7143	* 1.4536	* 1.3718	* 1.4765	* 1.8277	* 1.6196	* 1.7756	* 0.8973
	* 1.2587	* 1.4927	* 1.5751	* 1.4364	* 1.1466	* 1.2804	* 1.1623	* 2.0885
9	* 1.4536	* 1.7461	* 1.5980	* 1.7969	* 1.5544	* 1.6219	* 1.7718	* 0.8924
	* 1.4927	* 1.2421	* 1.3477	* 1.1807	* 1.3589	* 1.2852	* 1.1676	* 2.0979
10	* 1.3718	* 1.5982	* 1.3546	* 1.4314	* 1.7439	* 1.6157	* 1.8029	* 0.8554
	* 1.5751	* 1.3476	* 1.5957	* 1.4977	* 1.2213	* 1.3045	* 1.1642	* 2.1945
11	* 1.4765	* 1.7970	* 1.4320	* 1.7850	* 1.4291	* 1.7107	* 1.7233	* 0.7367
	* 1.4364	* 1.1806	* 1.4971	* 1.2014	* 1.4956	* 1.2436	* 1.2277	* 2.5889
12	* 1.8277	* 1.5544	* 1.7442	* 1.4292	* 1.5499	* 1.7433	* 1.0777	
	* 1.1466	* 1.3589	* 1.2211	* 1.4955	* 1.3570	* 1.2066	* 1.7918	
13	* 1.6196	* 1.6222	* 1.6160	* 1.7110	* 1.7433	* 1.1375	* 0.5632	
	* 1.2804	* 1.2850	* 1.3043	* 1.2434	* 1.2065	* 1.6919	* 3.3635	
14	* 1.7756	* 1.7719	* 1.8033	* 1.7236	* 1.0778	* 0.5630		
	* 1.1623	* 1.1675	* 1.1640	* 1.2275	* 1.7914	* 3.3642		
15	* 0.8973	* 0.8920	* 0.8569	* 0.7373	* F-SUB-Q			
	* 2.0885	* 2.0980	* 2.1920	* 2.5879	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7451	* 1.4708	* 1.3869	* 1.4966	* 1.8650	* 1.6489	* 1.8186	* 0.9069
	* 1.2831	* 1.5273	* 1.6018	* 1.4641	* 1.1614	* 1.2995	* 1.1725	* 2.1351
9	* 1.4708	* 1.7764	* 1.6207	* 1.8322	* 1.5775	* 1.6525	* 1.8151	* 0.9024
	* 1.5273	* 1.2586	* 1.3668	* 1.1952	* 1.3834	* 1.3030	* 1.1766	* 2.1439
10	* 1.3869	* 1.6209	* 1.3691	* 1.4513	* 1.7828	* 1.6476	* 1.8484	* 0.8646
	* 1.6018	* 1.3666	* 1.6224	* 1.5195	* 1.2269	* 1.3146	* 1.1666	* 2.2367
11	* 1.4966	* 1.8323	* 1.4519	* 1.8233	* 1.4532	* 1.7531	* 1.7678	* 0.7441
	* 1.4641	* 1.1951	* 1.5190	* 1.2102	* 1.5163	* 1.2480	* 1.2251	* 2.6274
12	* 1.8650	* 1.5775	* 1.7830	* 1.4533	* 1.5800	* 1.7858	* 1.0905	*
	* 1.1614	* 1.3834	* 1.2267	* 1.5161	* 1.3782	* 1.2169	* 1.8271	*
13	* 1.6489	* 1.6528	* 1.6479	* 1.7533	* 1.7859	* 1.1515	* 0.5670	*
	* 1.2995	* 1.3028	* 1.3144	* 1.2479	* 1.2168	* 1.7272	* 3.4446	*
14	* 1.8186	* 1.8153	* 1.8487	* 1.7681	* 1.0905	* 0.5668	*	*
	* 1.1725	* 1.1766	* 1.1663	* 1.2249	* 1.8266	* 3.4452	*	*
15	* 0.9069	* 0.9020	* 0.8662	* 0.7448	* F-SUB-Q			
	* 2.1351	* 2.1443	* 2.2341	* 2.6263	* M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7335	* 1.4638	* 1.3804	* 1.4927	* 1.8586	* 1.6490	* 1.8178	* 0.9165
	* 1.3345	* 1.5820	* 1.6657	* 1.5227	* 1.2099	* 1.3488	* 1.2174	* 2.1920
9	* 1.4638	* 1.7651	* 1.6143	* 1.8246	* 1.5756	* 1.6538	* 1.8147	* 0.9141
	* 1.5820	* 1.3073	* 1.4196	* 1.2446	* 1.4375	* 1.3484	* 1.2206	* 2.1942
10	* 1.3804	* 1.6146	* 1.3621	* 1.4492	* 1.7783	* 1.6501	* 1.8501	* 0.8791
	* 1.6657	* 1.4194	* 1.6871	* 1.5746	* 1.2719	* 1.3558	* 1.2034	* 2.2764
11	* 1.4927	* 1.8247	* 1.4498	* 1.8189	* 1.4546	* 1.7526	* 1.7704	* 0.7582
	* 1.5227	* 1.2445	* 1.5740	* 1.2495	* 1.5586	* 1.2847	* 1.2601	* 2.6606
12	* 1.8586	* 1.5756	* 1.7785	* 1.4548	* 1.5810	* 1.7868	* 1.1108	*
	* 1.2099	* 1.4375	* 1.2718	* 1.5584	* 1.4274	* 1.2587	* 1.8462	*
13	* 1.6490	* 1.6541	* 1.6504	* 1.7528	* 1.7868	* 1.1670	* 0.5753	*
	* 1.3488	* 1.3481	* 1.3555	* 1.2845	* 1.2586	* 1.7703	* 3.5122	*
14	* 1.8178	* 1.8148	* 1.8505	* 1.7708	* 1.1108	* 0.5752	*	*
	* 1.2174	* 1.2205	* 1.2032	* 1.2599	* 1.8458	* 3.5129	*	*
15	* 0.9165	* 0.9137	* 0.8804	* 0.7589	* F-SUB-Q			
	* 2.1920	* 2.1944	* 2.2745	* 2.6596	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7672	* 1.4798	* 1.3940	* 1.5111	* 1.9004	* 1.6783	* 1.8652	* 0.9170
	* 1.3585	* 1.6247	* 1.7149	* 1.5691	* 1.2348	* 1.3816	* 1.2367	* 2.2819
9	* 1.4798	* 1.7987	* 1.6370	* 1.8634	* 1.5965	* 1.6841	* 1.8623	* 0.9136
	* 1.6247	* 1.3328	* 1.4558	* 1.2700	* 1.4792	* 1.3781	* 1.2390	* 2.2855
10	* 1.3940	* 1.6373	* 1.3752	* 1.4663	* 1.8199	* 1.6817	* 1.8999	* 0.8769
	* 1.7149	* 1.4555	* 1.7376	* 1.6181	* 1.2907	* 1.3817	* 1.2168	* 2.3718
11	* 1.5111	* 1.8635	* 1.4669	* 1.8598	* 1.4755	* 1.7980	* 1.8188	* 0.7538
	* 1.5691	* 1.2699	* 1.6174	* 1.2693	* 1.5945	* 1.2991	* 1.2728	* 2.7724
12	* 1.9004	* 1.5965	* 1.8202	* 1.4757	* 1.6111	* 1.8329	* 1.1107	
	* 1.2348	* 1.4792	* 1.2905	* 1.5944	* 1.4486	* 1.2692	* 1.9108	
13	* 1.6783	* 1.6844	* 1.6820	* 1.7983	* 1.8330	* 1.1692	* 0.5709	
	* 1.3816	* 1.3778	* 1.3815	* 1.2989	* 1.2691	* 1.8242	* 3.6499	
14	* 1.8652	* 1.8625	* 1.9003	* 1.8191	* 1.1108	* 0.5707		
	* 1.2367	* 1.2389	* 1.2165	* 1.2726	* 1.9103	* 3.6506		
15	* 0.9170	* 0.9130	* 0.8785	* 0.7545	* F-SUB-Q			
	* 2.2819	* 2.2861	* 2.3691	* 2.7712	* M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7708	* 1.4789	* 1.3926	* 1.5127	* 1.9107	* 1.6864	* 1.8807	* 0.9184
	* 1.3780	* 1.6482	* 1.7386	* 1.5981	* 1.2671	* 1.4351	* 1.2824	* 2.3799
9	* 1.4789	* 1.8028	* 1.6391	* 1.8714	* 1.5999	* 1.6933	* 1.8782	* 0.9155
	* 1.6482	* 1.3521	* 1.4796	* 1.2950	* 1.5124	* 1.4314	* 1.2841	* 2.3810
10	* 1.3926	* 1.6395	* 1.3733	* 1.4681	* 1.8304	* 1.6921	* 1.9181	* 0.8795
	* 1.7386	* 1.4793	* 1.7642	* 1.6512	* 1.3280	* 1.4324	* 1.2569	* 2.4663
11	* 1.5127	* 1.8716	* 1.4688	* 1.8701	* 1.4807	* 1.8128	* 1.8368	* 0.7555
	* 1.5981	* 1.2949	* 1.6504	* 1.3052	* 1.6484	* 1.3416	* 1.3120	* 2.8772
12	* 1.9107	* 1.5998	* 1.8307	* 1.4809	* 1.6206	* 1.8490	* 1.1165	
	* 1.2671	* 1.5124	* 1.3278	* 1.6482	* 1.4996	* 1.3102	* 1.9791	
13	* 1.6864	* 1.6936	* 1.6924	* 1.8131	* 1.8491	* 1.1734	* 0.5704	
	* 1.4351	* 1.4312	* 1.4322	* 1.3414	* 1.3101	* 1.8904	* 3.7941	
14	* 1.8807	* 1.8784	* 1.9185	* 1.8372	* 1.1165	* 0.5703		
	* 1.2824	* 1.2840	* 1.2567	* 1.3118	* 1.9787	* 3.7948		
15	* 0.9184	* 0.9150	* 0.8811	* 0.7562	* F-SUB-Q			
	* 2.3799	* 2.3816	* 2.4634	* 2.8759	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7474	1.4622	1.3774	1.4994	1.8921	1.6758	1.8682	0.9198
	1.3679	1.6283	1.7145	1.5732	1.2487	1.4099	1.2651	2.3334
9	1.4622	1.7803	1.6231	1.8517	1.5869	1.6842	1.8662	0.9184
	1.6283	1.3366	1.4576	1.2769	1.4878	1.4062	1.2677	2.3320
10	1.3774	1.6235	1.3577	1.4555	1.8129	1.6835	1.9080	0.8853
	1.7145	1.4572	1.7408	1.6248	1.3090	1.4105	1.2458	2.4127
11	1.4994	1.8519	1.4562	1.8530	1.4713	1.7995	1.8277	0.7623
	1.5732	1.2768	1.6241	1.2863	1.6195	1.3268	1.3050	2.8208
12	1.8921	1.5869	1.8132	1.4715	1.6116	1.8381	1.1245	
	1.2487	1.4878	1.3087	1.6193	1.4960	1.3095	1.9450	
13	1.6758	1.6846	1.6838	1.7997	1.8382	1.1783	0.5729	
	1.4099	1.4059	1.4103	1.3266	1.3094	1.8742	3.7741	
14	1.8682	1.8664	1.9084	1.8281	1.1245	0.5727		
	1.2651	1.2676	1.2456	1.3048	1.9446	3.7748		
15	0.9198	0.9180	0.8867	0.7630	F-SUB-Q			
	2.3333	2.3323	2.4105	2.8196	M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7632	1.4652	1.3790	1.5036	1.9159	1.6903	1.8986	0.9121
	1.3260	1.5865	1.6687	1.5315	1.2058	1.3672	1.2178	2.2930
9	1.4652	1.7968	1.6308	1.8723	1.5932	1.6995	1.8976	0.9103
	1.5865	1.2939	1.4160	1.2341	1.4480	1.3631	1.2201	2.2943
10	1.3790	1.6313	1.3588	1.4591	1.8359	1.7003	1.9412	0.8755
	1.6687	1.4156	1.6946	1.5820	1.2640	1.3661	1.1981	2.3776
11	1.5036	1.8725	1.4598	1.8753	1.4785	1.8270	1.8600	0.7510
	1.5315	1.2340	1.5812	1.2426	1.5757	1.2779	1.2538	2.7880
12	1.9159	1.5932	1.8362	1.4786	1.6271	1.8674	1.1142	
	1.2058	1.4481	1.2638	1.5755	1.4477	1.2590	1.9165	
13	1.6903	1.6998	1.7006	1.8273	1.8675	1.1702	0.5633	
	1.3672	1.3629	1.3658	1.2777	1.2589	1.8428	3.7327	
14	1.8986	1.8979	1.9416	1.8604	1.1143	0.5632		
	1.2178	1.2200	1.1978	1.2535	1.9160	3.7334		
15	0.9121	0.9097	0.8772	0.7518	F-SUB-Q			
	2.2930	2.2949	2.3747	2.7868	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7553	1.4548	1.3685	1.4952	1.9139	1.6878	1.9031	0.9044
	1.2767	1.5307	1.6114	1.4761	1.1577	1.3143	1.1663	2.2179
9	1.4548	1.7898	1.6225	1.8686	1.5854	1.6982	1.9032	0.9035
	1.5307	1.2438	1.3637	1.1850	1.3948	1.3092	1.1682	2.2174
10	1.3685	1.6231	1.3478	1.4503	1.8346	1.6997	1.9485	0.8684
	1.6114	1.3632	1.6371	1.5249	1.2137	1.3113	1.1456	2.2979
11	1.4952	1.8687	1.4510	1.8729	1.4728	1.8303	1.8675	0.7443
	1.4761	1.1849	1.5241	1.1925	1.5160	1.2233	1.1982	2.6954
12	1.9139	1.5853	1.8349	1.4730	1.6256	1.8722	1.1064	
	1.1577	1.3948	1.2135	1.5159	1.3943	1.2073	1.8483	
13	1.6878	1.6985	1.7000	1.8306	1.8723	1.1627	0.5562	
	1.3143	1.3090	1.3111	1.2230	1.2072	1.7788	3.6179	
14	1.9031	1.9035	1.9489	1.8679	1.1064	0.5560		
	1.1663	1.1681	1.1453	1.1980	1.8478	3.6187		
15	0.9044	0.9029	0.8701	0.7451	F-SUB-Q			
	2.2179	2.2181	2.2951	2.6941	M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7327	1.4351	1.3506	1.4770	1.8956	1.6735	1.8901	0.8956
	1.2426	1.4912	1.5704	1.4371	1.1237	1.2746	1.1291	2.1552
9	1.4351	1.7684	1.6043	1.8491	1.5677	1.6850	1.8907	0.8954
	1.4912	1.2095	1.3260	1.1511	1.3564	1.2686	1.1307	2.1535
10	1.3506	1.6048	1.3297	1.4326	1.8167	1.6867	1.9374	0.8619
	1.5704	1.3255	1.5959	1.4842	1.1783	1.2698	1.1068	2.2270
11	1.4770	1.8493	1.4334	1.8549	1.4569	1.8170	1.8564	0.7382
	1.4371	1.1510	1.4834	1.1564	1.4722	1.1832	1.1574	2.6128
12	1.8956	1.5676	1.8170	1.4571	1.6121	1.8598	1.1004	
	1.1237	1.3565	1.1781	1.4720	1.3494	1.1661	1.7842	
13	1.6735	1.6854	1.6870	1.8173	1.8599	1.1539	0.5503	
	1.2746	1.2683	1.2696	1.1830	1.1660	1.7199	3.5110	
14	1.8901	1.8910	1.9378	1.8568	1.1004	0.5502		
	1.1291	1.1306	1.1066	1.1572	1.7838	3.5118		
15	0.8956	0.8948	0.8635	0.7389	F-SUB-Q			
	2.1552	2.1542	2.2243	2.6116	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6898	* 1.4040	* 1.3252	* 1.4486	* 1.8550	* 1.6446	* 1.8534	* 0.8857
	* 1.3249	* 1.5861	* 1.6685	* 1.5271	* 1.1965	* 1.3513	* 1.1993	* 2.2722
9	* 1.4040	* 1.7267	* 1.5722	* 1.8079	* 1.5374	* 1.6566	* 1.8546	* 0.8858
	* 1.5861	* 1.2888	* 1.4095	* 1.2262	* 1.4411	* 1.3439	* 1.2004	* 2.2680
10	* 1.3252	* 1.5728	* 1.3013	* 1.4040	* 1.7761	* 1.6583	* 1.9025	* 0.8559
	* 1.6685	* 1.4090	* 1.6994	* 1.5776	* 1.2552	* 1.3446	* 1.1729	* 2.3369
11	* 1.4486	* 1.8081	* 1.4048	* 1.8144	* 1.4294	* 1.7804	* 1.8222	* 0.7348
	* 1.5271	* 1.2260	* 1.5767	* 1.2298	* 1.5607	* 1.2558	* 1.2262	* 2.7339
12	* 1.8550	* 1.5374	* 1.7764	* 1.4296	* 1.5832	* 1.8246	* 1.0931	
	* 1.1965	* 1.4412	* 1.2550	* 1.5605	* 1.4269	* 1.2342	* 1.8675	
13	* 1.6446	* 1.6570	* 1.6586	* 1.7807	* 1.8247	* 1.1441	* 0.5455	
	* 1.3513	* 1.3436	* 1.3444	* 1.2556	* 1.2341	* 1.8015	* 3.6841	
14	* 1.8534	* 1.8549	* 1.9029	* 1.8226	* 1.0931	* 0.5453		
	* 1.1993	* 1.2003	* 1.1727	* 1.2260	* 1.8671	* 3.6849		
15	* 0.8857	* 0.8852	* 0.8575	* 0.7355	* F-SUB-Q			
	* 2.2722	* 2.2684	* 2.3343	* 2.7326	* M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6819	* 1.3888	* 1.3074	* 1.4325	* 1.8518	* 1.6348	* 1.8554	* 0.8633
	* 1.2728	* 1.5375	* 1.6281	* 1.4887	* 1.1552	* 1.3116	* 1.1551	* 2.2516
9	* 1.3888	* 1.7204	* 1.5596	* 1.8030	* 1.5222	* 1.6473	* 1.8571	* 0.8644
	* 1.5375	* 1.2408	* 1.3677	* 1.1839	* 1.4033	* 1.3027	* 1.1549	* 2.2441
10	* 1.3074	* 1.5603	* 1.2861	* 1.3874	* 1.7711	* 1.6495	* 1.9061	* 0.8313
	* 1.6281	* 1.3672	* 1.6554	* 1.5373	* 1.2105	* 1.3018	* 1.1265	* 2.3212
11	* 1.4325	* 1.8032	* 1.3883	* 1.8093	* 1.4143	* 1.7804	* 1.8246	* 0.7104
	* 1.4887	* 1.1838	* 1.5364	* 1.1843	* 1.5159	* 1.2061	* 1.1763	* 2.7243
12	* 1.8518	* 1.5221	* 1.7714	* 1.4145	* 1.5744	* 1.8253	* 1.0620	
	* 1.1552	* 1.4034	* 1.2103	* 1.5157	* 1.3713	* 1.1807	* 1.8444	
13	* 1.6348	* 1.6477	* 1.6498	* 1.7807	* 1.8254	* 1.1171	* 0.5269	
	* 1.3116	* 1.3024	* 1.3015	* 1.2059	* 1.1807	* 1.7652	* 3.6644	
14	* 1.8554	* 1.8574	* 1.9066	* 1.8250	* 1.0620	* 0.5267		
	* 1.1551	* 1.1547	* 1.1262	* 1.1761	* 1.8440	* 3.6652		
15	* 0.8633	* 0.8638	* 0.8329	* 0.7112	* F-SUB-Q			
	* 2.2516	* 2.2450	* 2.3182	* 2.7230	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6368	* 1.3527	* 1.2746	* 1.3963	* 1.8082	* 1.5985	* 1.8140	* 0.8395
	* 1.2537	* 1.5162	* 1.6072	* 1.4698	* 1.1379	* 1.2905	* 1.1362	* 2.2302
9	* 1.3527	* 1.6770	* 1.5227	* 1.7585	* 1.4844	* 1.6110	* 1.8157	* 0.8409
	* 1.5162	* 1.2226	* 1.3476	* 1.1673	* 1.3845	* 1.2811	* 1.1355	* 2.2214
10	* 1.2746	* 1.5234	* 1.2537	* 1.3513	* 1.7254	* 1.6126	* 1.8654	* 0.8087
	* 1.6072	* 1.3470	* 1.6344	* 1.5185	* 1.1942	* 1.2801	* 1.1061	* 2.2973
11	* 1.3963	* 1.7587	* 1.3521	* 1.7645	* 1.3779	* 1.7369	* 1.7833	* 0.6901
	* 1.4698	* 1.1672	* 1.5176	* 1.1665	* 1.4950	* 1.1875	* 1.1562	* 2.6994
12	* 1.8082	* 1.4844	* 1.7257	* 1.3780	* 1.5384	* 1.7843	* 1.0332	
	* 1.1379	* 1.3846	* 1.1940	* 1.4948	* 1.3438	* 1.1580	* 1.8213	
13	* 1.5985	* 1.6114	* 1.6130	* 1.7372	* 1.7844	* 1.0889	* 0.5111	
	* 1.2905	* 1.2808	* 1.2799	* 1.1873	* 1.1580	* 1.7366	* 3.6312	
14	* 1.8140	* 1.8160	* 1.8658	* 1.7837	* 1.0333	* 0.5110		
	* 1.1362	* 1.1354	* 1.1059	* 1.1559	* 1.8209	* 3.6321		
15	* 0.8395	* 0.8402	* 0.8103	* 0.6908	* F-SUB-Q			
	* 2.2302	* 2.2223	* 2.2944	* 2.6980	* M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5466	* 1.2911	* 1.2229	* 1.3352	* 1.7147	* 1.5296	* 1.7189	* 0.8120
	* 1.2821	* 1.5359	* 1.6219	* 1.4874	* 1.1606	* 1.3046	* 1.1597	* 2.2331
9	* 1.2911	* 1.5884	* 1.4559	* 1.6654	* 1.4190	* 1.5417	* 1.7202	* 0.8131
	* 1.5359	* 1.2477	* 1.3636	* 1.1922	* 1.4014	* 1.2946	* 1.1589	* 2.2247
10	* 1.2229	* 1.4566	* 1.2001	* 1.2911	* 1.6308	* 1.5416	* 1.7695	* 0.7862
	* 1.6219	* 1.3630	* 1.6524	* 1.5377	* 1.2214	* 1.2947	* 1.1269	* 2.2883
11	* 1.3352	* 1.6656	* 1.2919	* 1.6718	* 1.3156	* 1.6404	* 1.6880	* 0.6720
	* 1.4874	* 1.1921	* 1.5368	* 1.1898	* 1.5135	* 1.2149	* 1.1801	* 2.6836
12	* 1.7147	* 1.4189	* 1.6311	* 1.3157	* 1.4692	* 1.6920	* 1.0038	
	* 1.1606	* 1.4014	* 1.2212	* 1.5133	* 1.3580	* 1.1785	* 1.8120	
13	* 1.5296	* 1.5421	* 1.5419	* 1.6407	* 1.6921	* 1.0566	* 0.4974	
	* 1.3046	* 1.2943	* 1.2945	* 1.2147	* 1.1785	* 1.7281	* 3.6100	
14	* 1.7189	* 1.7205	* 1.7699	* 1.6883	* 1.0038	* 0.4972		
	* 1.1597	* 1.1587	* 1.1267	* 1.1799	* 1.8116	* 3.6109		
15	* 0.8120	* 0.8125	* 0.7876	* 0.6727	* F-SUB-Q			
	* 2.2331	* 2.2256	* 2.2856	* 2.6822	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4725	1.2355	1.1692	1.2754	1.6368	1.4663	1.6391	0.7653
	1.3099	1.5618	1.6514	1.5159	1.1831	1.3251	1.1831	2.3090
9	1.2355	1.5151	1.3956	1.5880	1.3567	1.4773	1.6400	0.7661
	1.5618	1.2727	1.3852	1.2166	1.4267	1.3144	1.1824	2.3004
10	1.1692	1.3963	1.1508	1.2334	1.5534	1.4770	1.6892	0.7375
	1.6514	1.3845	1.6780	1.5671	1.2474	1.3150	1.1479	2.3763
11	1.2754	1.5882	1.2342	1.5952	1.2569	1.5593	1.6069	0.6267
	1.5159	1.2165	1.5661	1.2126	1.5409	1.2425	1.2053	2.8033
12	1.6368	1.3566	1.5537	1.2571	1.4075	1.6145	0.9399	
	1.1831	1.4268	1.2471	1.5407	1.3776	1.2002	1.8828	
13	1.4663	1.4776	1.4773	1.5596	1.6146	0.9965	0.4659	
	1.3251	1.3141	1.3148	1.2423	1.2002	1.7818	3.7535	
14	1.6391	1.6403	1.6896	1.6073	0.9399	0.4658		
	1.1831	1.1822	1.1476	1.2051	1.8823	3.7545		
15	0.7653	0.7655	0.7390	0.6274	F-SUB-Q			
	2.3090	2.3013	2.3733	2.8018	M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3372	1.1355	1.0678	1.1683	1.4758	1.3374	1.4746	0.7035
	1.4115	1.6637	1.7710	1.6202	1.2842	1.4219	1.2885	2.4626
9	1.1355	1.3687	1.2725	1.4337	1.2433	1.3454	1.4715	0.7039
	1.6637	1.3790	1.4874	1.3191	1.5241	1.4123	1.2901	2.4544
10	1.0678	1.2732	1.0513	1.1333	1.4057	1.3464	1.5179	0.6770
	1.7710	1.4867	1.7991	1.6708	1.3483	1.4115	1.2499	2.5379
11	1.1683	1.4339	1.1339	1.4439	1.1565	1.4046	1.4462	0.5721
	1.6202	1.3189	1.6698	1.3109	1.6389	1.3495	1.3103	3.0106
12	1.4758	1.2433	1.4060	1.1567	1.2839	1.4550	0.8616	
	1.2842	1.5242	1.3481	1.6387	1.4779	1.3028	2.0112	
13	1.3374	1.3457	1.3467	1.4049	1.4550	0.9098	0.4256	
	1.4219	1.4120	1.4113	1.3493	1.3027	1.9107	4.0297	
14	1.4746	1.4717	1.5182	1.4465	0.8616	0.4255		
	1.2885	1.2899	1.2497	1.3100	2.0109	4.0308		
15	0.7035	0.7033	0.6780	0.5727	F-SUB-Q			
	2.4626	2.4554	2.5357	3.0089	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 100 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2016	* 0.9302	* 0.8563	* 0.9486	* 1.2755	* 1.0678	* 1.2680	* 0.5794
	* 1.5470	* 1.9994	* 2.1757	* 1.9649	* 1.4625	* 1.7527	* 1.4739	* 2.9492
9	* 0.9302	* 1.1940	* 1.0278	* 1.2503	* 1.0139	* 1.0736	* 1.2663	* 0.5837
	* 1.9994	* 1.5576	* 1.8127	* 1.4904	* 1.8401	* 1.7429	* 1.4759	* 2.9196
10	* 0.8563	* 1.0283	* 0.8401	* 0.9297	* 1.2631	* 1.0780	* 1.2587	* 0.5574
	* 2.1757	* 1.8118	* 2.2181	* 2.0048	* 1.4772	* 1.7339	* 1.4841	* 3.0398
11	* 0.9486	* 1.2504	* 0.9301	* 1.2655	* 0.9507	* 1.2559	* 1.1918	* 0.4683
	* 1.9649	* 1.4902	* 2.0038	* 1.4731	* 1.9623	* 1.4858	* 1.5649	* 3.6289
12	* 1.2755	* 1.0138	* 1.2633	* 0.9508	* 1.0397	* 1.2075	* 0.7150	
	* 1.4625	* 1.8401	* 1.4770	* 1.9621	* 1.7965	* 1.5452	* 2.3887	
13	* 1.0678	* 1.0738	* 1.0782	* 1.2561	* 1.2075	* 0.7401	* 0.3455	
	* 1.7527	* 1.7425	* 1.7335	* 1.4856	* 1.5451	* 2.3146	* 4.8996	
14	* 1.2680	* 1.2664	* 1.2589	* 1.1920	* 0.7150	* 0.3454		
	* 1.4739	* 1.4758	* 1.4838	* 1.5646	* 2.3882	* 4.9007		
15	* 0.5794	* 0.5833	* 0.5580	* 0.4687	* F-SUB-Q			
	* 2.9492	* 2.9204	* 3.0387	* 3.6272	* M-SUB-Q			

AT 100% POWER, 100 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4692	* 0.3954	* 0.3705	* 0.4105	* 0.4935	* 0.4175	* 0.4575	* 0.2395
	* 3.9247	* 4.6601	* 4.9817	* 4.4983	* 3.7443	* 4.4366	* 4.0475	* 7.0781
9	* 0.3954	* 0.4598	* 0.4059	* 0.4801	* 0.4273	* 0.4189	* 0.4566	* 0.2405
	* 4.6601	* 4.0086	* 4.5479	* 3.8450	* 4.3243	* 4.4203	* 4.0554	* 7.0309
10	* 0.3705	* 0.4061	* 0.3635	* 0.4046	* 0.4890	* 0.4227	* 0.4510	* 0.2322
	* 4.9817	* 4.5459	* 5.0798	* 4.5643	* 3.7783	* 4.3755	* 4.1030	* 7.2399
11	* 0.4105	* 0.4802	* 0.4048	* 0.4735	* 0.4123	* 0.4797	* 0.4256	* 0.1990
	* 4.4983	* 3.8445	* 4.5625	* 3.8996	* 4.4829	* 3.8533	* 4.3443	* 8.4748
12	* 0.4935	* 0.4273	* 0.4890	* 0.4124	* 0.4029	* 0.4348	* 0.2929	
	* 3.7443	* 4.3244	* 3.7777	* 4.4825	* 4.5904	* 4.2517	* 5.7847	
13	* 0.4175	* 0.4190	* 0.4228	* 0.4798	* 0.4349	* 0.2994	* 0.1502	
	* 4.4366	* 4.4195	* 4.3749	* 3.8529	* 4.2515	* 5.6727	* 11.1856	
14	* 0.4575	* 0.4566	* 0.4511	* 0.4257	* 0.2929	* 0.1502		
	* 4.0475	* 4.0551	* 4.1023	* 4.3436	* 5.7835	* 11.1876		
15	* 0.2395	* 0.2404	* 0.2324	* 0.1992	* F-SUB-Q			
	* 7.0781	* 7.0312	* 7.2398	* 8.4724	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4208	* 0.4162	* 0.4138	* 0.4437	* 0.5079	* 0.4429	* 0.4569	* 0.2604
	* 3.6604	* 4.2287	* 4.5192	* 4.0846	* 3.5499	* 4.0086	* 3.8901	* 6.1432
9	* 0.4162	* 0.4817	* 0.4403	* 0.5029	* 0.4595	* 0.4406	* 0.4555	* 0.2604
	* 4.2287	* 3.8056	* 4.2308	* 3.6295	* 3.9375	* 4.0579	* 3.9195	* 6.1477
10	* 0.4138	* 0.4404	* 0.4083	* 0.4369	* 0.5009	* 0.4399	* 0.4465	* 0.2495
	* 4.5192	* 4.2300	* 4.5688	* 4.2454	* 3.7100	* 4.1811	* 4.0946	* 6.4740
11	* 0.4437	* 0.5029	* 0.4369	* 0.4833	* 0.4315	* 0.4756	* 0.4223	* 0.2183
	* 4.0846	* 3.6293	* 4.2450	* 3.8150	* 4.2477	* 3.8527	* 4.3928	* 7.6517
12	* 0.5079	* 0.4595	* 0.5010	* 0.4315	* 0.3880	* 0.4154	* 0.3006	
	* 3.5499	* 3.9373	* 3.7097	* 4.2475	* 4.2450	* 4.1401	* 5.4697	
13	* 0.4429	* 0.4406	* 0.4399	* 0.4756	* 0.4154	* 0.2989	* 0.1713	
	* 4.0086	* 4.0578	* 4.1807	* 3.8524	* 4.1400	* 5.1087	* 9.2425	
14	* 0.4569	* 0.4555	* 0.4465	* 0.4223	* 0.3006	* 0.1713		
	* 3.8901	* 3.9193	* 4.0940	* 4.3923	* 5.4685	* 9.2438		
15	* 0.2604	* 0.2604	* 0.2498	* 0.2185	* F-SUB-Q			
	* 6.1432	* 6.1467	* 6.4708	* 7.6502	* M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0751	* 0.9123	* 0.8711	* 0.9338	* 1.1559	* 1.0036	* 1.1033	* 0.5941
	* 1.6535	* 2.0115	* 2.1945	* 1.9859	* 1.5986	* 1.8104	* 1.6488	* 2.7570
9	* 0.9123	* 1.1038	* 0.9986	* 1.1456	* 0.9845	* 0.9955	* 1.1005	* 0.5944
	* 2.0115	* 1.6899	* 1.9082	* 1.6281	* 1.8792	* 1.8295	* 1.6598	* 2.7614
10	* 0.8711	* 0.9987	* 0.8611	* 0.9191	* 1.1394	* 0.9990	* 1.0838	* 0.5649
	* 2.1945	* 1.9080	* 2.2195	* 2.0630	* 1.6664	* 1.8832	* 1.7217	* 2.9250
11	* 0.9338	* 1.1456	* 0.9193	* 1.1416	* 0.9139	* 1.1017	* 1.0310	* 0.4879
	* 1.9859	* 1.6280	* 2.0628	* 1.6456	* 2.0466	* 1.6960	* 1.8193	* 3.4982
12	* 1.1559	* 0.9846	* 1.1395	* 0.9140	* 0.9277	* 1.0391	* 0.6917	
	* 1.5986	* 1.8791	* 1.6662	* 2.0465	* 1.8887	* 1.7328	* 2.4273	
13	* 1.0036	* 0.9956	* 0.9991	* 1.1018	* 1.0392	* 0.7150	* 0.3822	
	* 1.8104	* 1.8295	* 1.8830	* 1.6959	* 1.7328	* 2.2596	* 4.2501	
14	* 1.1033	* 1.1006	* 1.0840	* 1.0312	* 0.6918	* 0.3821		
	* 1.6488	* 1.6597	* 1.7215	* 1.8191	* 2.4267	* 4.2508		
15	* 0.5941	* 0.5942	* 0.5656	* 0.4882	* F-SUB-Q			
	* 2.7570	* 2.7612	* 2.9238	* 3.4973	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2943	1.1274	1.0673	1.1433	1.3600	1.2263	1.3057	0.7303
	1.4592	1.6849	1.8209	1.6475	1.3743	1.4964	1.4133	2.2767
9	1.1274	1.3036	1.2192	1.3453	1.2008	1.2280	1.3026	0.7263
	1.6849	1.4679	1.5892	1.4070	1.5641	1.5061	1.4225	2.2875
10	1.0673	1.2192	1.0583	1.1205	1.3235	1.2200	1.3053	0.6960
	1.8209	1.5891	1.8353	1.7168	1.4543	1.5504	1.4517	2.4089
11	1.1433	1.3453	1.1208	1.3383	1.1183	1.2860	1.2525	0.6045
	1.6475	1.4069	1.7165	1.4293	1.7053	1.4789	1.5215	2.8635
12	1.3600	1.2008	1.3236	1.1184	1.1743	1.2706	0.8562	
	1.3743	1.5640	1.4542	1.7052	1.5773	1.4622	1.9981	
13	1.2263	1.2281	1.2202	1.2861	1.2706	0.8936	0.4773	
	1.4964	1.5060	1.5502	1.4788	1.4622	1.8777	3.4799	
14	1.3057	1.3027	1.3055	1.2527	0.8562	0.4772		
	1.4133	1.4225	1.4516	1.5213	1.9976	3.4805		
15	0.7303	0.7261	0.6968	0.6050	F-SUB-Q			
	2.2767	2.2873	2.4078	2.8627	M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4887	1.2571	1.1822	1.2725	1.5594	1.3750	1.5044	0.7986
	1.3006	1.5476	1.6700	1.5031	1.2174	1.3534	1.2429	2.1123
9	1.2571	1.4959	1.3622	1.5418	1.3375	1.3784	1.5015	0.7928
	1.5476	1.3068	1.4442	1.2455	1.4255	1.3629	1.2505	2.1262
10	1.1822	1.3622	1.1724	1.2461	1.5174	1.3728	1.5030	0.7591
	1.6700	1.4442	1.6817	1.5672	1.2861	1.3966	1.2784	2.2398
11	1.2725	1.5419	1.2464	1.5383	1.2475	1.4858	1.4455	0.6592
	1.5031	1.2454	1.5670	1.2667	1.5559	1.3033	1.3401	2.6613
12	1.5594	1.3375	1.5176	1.2475	1.3260	1.4662	0.9438	
	1.2174	1.4254	1.2859	1.5558	1.4303	1.2950	1.8484	
13	1.3750	1.3785	1.3730	1.4860	1.4663	0.9882	0.5186	
	1.3534	1.3629	1.3964	1.3032	1.2950	1.7399	3.2735	
14	1.5044	1.5016	1.5032	1.4457	0.9438	0.5185		
	1.2429	1.2504	1.2782	1.3400	1.8479	3.2742		
15	0.7986	0.7925	0.7601	0.6598	F-SUB-Q			
	2.1123	2.1261	2.2385	2.6604	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values range from approximately 0.8356 to 2.5587. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the table.

AT 100% POWER, 175 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values range from approximately 0.7225 to 2.5020. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the table.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6838	* 1.3728	* 1.2759	* 1.3925	* 1.7646	* 1.5212	* 1.7247	* 0.8787
	* 1.2299	* 1.5128	* 1.6317	* 1.4578	* 1.1409	* 1.2954	* 1.1459	* 2.0363
9	* 1.3728	* 1.6812	* 1.4876	* 1.7429	* 1.4685	* 1.5293	* 1.7231	* 0.8758
	* 1.5128	* 1.2371	* 1.3955	* 1.1670	* 1.3767	* 1.3033	* 1.1504	* 2.0408
10	* 1.2759	* 1.4877	* 1.2629	* 1.3703	* 1.7395	* 1.5384	* 1.7291	* 0.8405
	* 1.6317	* 1.3954	* 1.6469	* 1.5063	* 1.1822	* 1.3140	* 1.1656	* 2.1371
11	* 1.3925	* 1.7430	* 1.3707	* 1.7556	* 1.3888	* 1.7238	* 1.6768	* 0.7320
	* 1.4578	* 1.1669	* 1.5059	* 1.1734	* 1.4796	* 1.1869	* 1.2140	* 2.5120
12	* 1.7646	* 1.4685	* 1.7397	* 1.3890	* 1.4820	* 1.6911	* 1.0625	
	* 1.1409	* 1.3767	* 1.1821	* 1.4795	* 1.3713	* 1.2012	* 1.7480	
13	* 1.5212	* 1.5295	* 1.5387	* 1.7240	* 1.6912	* 1.0967	* 0.5656	
	* 1.2954	* 1.3032	* 1.3138	* 1.1868	* 1.2012	* 1.6852	* 3.2270	
14	* 1.7247	* 1.7232	* 1.7293	* 1.6770	* 1.0626	* 0.5655		
	* 1.1459	* 1.1504	* 1.1654	* 1.2139	* 1.7476	* 3.2277		
15	* 0.8787	* 0.8754	* 0.8415	* 0.7326	* F-SUB-Q			
	* 2.0363	* 2.0409	* 2.1361	* 2.5112	* M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7078	* 1.3842	* 1.2840	* 1.4056	* 1.7927	* 1.5408	* 1.7583	* 0.8875
	* 1.2383	* 1.5325	* 1.6567	* 1.4830	* 1.1540	* 1.3138	* 1.1544	* 2.0717
9	* 1.3842	* 1.7036	* 1.5013	* 1.7700	* 1.4840	* 1.5507	* 1.7572	* 0.8851
	* 1.5325	* 1.2475	* 1.4117	* 1.1793	* 1.3992	* 1.3177	* 1.1579	* 2.0744
10	* 1.2840	* 1.5015	* 1.2710	* 1.3853	* 1.7737	* 1.5646	* 1.7652	* 0.8501
	* 1.6567	* 1.4115	* 1.6696	* 1.5208	* 1.1862	* 1.3232	* 1.1673	* 2.1659
11	* 1.4056	* 1.7701	* 1.3857	* 1.7872	* 1.4085	* 1.7619	* 1.7143	* 0.7402
	* 1.4830	* 1.1793	* 1.5205	* 1.1783	* 1.4912	* 1.1863	* 1.2135	* 2.5286
12	* 1.7927	* 1.4840	* 1.7739	* 1.4086	* 1.5053	* 1.7272	* 1.0783	
	* 1.1540	* 1.3992	* 1.1861	* 1.4911	* 1.3769	* 1.1987	* 1.7565	
13	* 1.5408	* 1.5509	* 1.5649	* 1.7620	* 1.7273	* 1.1101	* 0.5698	
	* 1.3138	* 1.3176	* 1.3230	* 1.1862	* 1.1986	* 1.7009	* 3.2641	
14	* 1.7583	* 1.7573	* 1.7654	* 1.7146	* 1.0783	* 0.5697		
	* 1.1544	* 1.1578	* 1.1671	* 1.2133	* 1.7562	* 3.2647		
15	* 0.8875	* 0.8847	* 0.8511	* 0.7408	* F-SUB-Q			
	* 2.0717	* 2.0746	* 2.1649	* 2.5279	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 16 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7310	1.3938	1.2913	1.4168	1.8202	1.5586	1.7905	0.8923
	1.2653	1.5730	1.6909	1.5182	1.1735	1.3406	1.1699	2.1272
9	1.3938	1.7257	1.5143	1.7965	1.4974	1.5703	1.7906	0.8891
	1.5730	1.2718	1.4374	1.1978	1.4309	1.3400	1.1724	2.1323
10	1.2913	1.5145	1.2784	1.3976	1.8062	1.5877	1.7995	0.8549
	1.6909	1.4372	1.7044	1.5477	1.1928	1.3358	1.1760	2.2173
11	1.4168	1.7966	1.3980	1.8178	1.4246	1.7974	1.7491	0.7435
	1.5182	1.1978	1.5473	1.1926	1.5184	1.1969	1.2175	2.5796
12	1.8202	1.4974	1.8064	1.4248	1.5265	1.7612	1.0872	
	1.1735	1.4309	1.1927	1.5183	1.4031	1.2124	1.7952	
13	1.5586	1.5705	1.5880	1.7976	1.7613	1.1180	0.5711	
	1.3406	1.3399	1.3356	1.1968	1.2123	1.7425	3.3539	
14	1.7905	1.7908	1.7997	1.7493	1.0872	0.5710		
	1.1699	1.1723	1.1758	1.2173	1.7949	3.3546		
15	0.8923	0.8886	0.8559	0.7441	F-SUB-Q			
	2.1272	2.1326	2.2163	2.5787	M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7161	1.3846	1.2907	1.4104	1.8078	1.5528	1.7833	0.8992
	1.3229	1.6375	1.7478	1.5810	1.2250	1.3948	1.2184	2.1892
9	1.3846	1.7103	1.5053	1.7836	1.4913	1.5669	1.7843	0.8994
	1.6375	1.3240	1.4953	1.2500	1.4898	1.3901	1.2199	2.1843
10	1.2907	1.5056	1.2691	1.3933	1.7982	1.5858	1.7942	0.8664
	1.7478	1.4950	1.7739	1.6048	1.2359	1.3801	1.2184	2.2636
11	1.4104	1.7837	1.3937	1.8085	1.4228	1.7920	1.7458	0.7564
	1.5810	1.2500	1.6045	1.2342	1.5648	1.2350	1.2565	2.6165
12	1.8078	1.4912	1.7984	1.4229	1.5234	1.7565	1.1033	
	1.2250	1.4899	1.2358	1.5646	1.4575	1.2584	1.8214	
13	1.5528	1.5671	1.5861	1.7922	1.7565	1.1302	0.5782	
	1.3948	1.3900	1.3799	1.2349	1.2583	1.7897	3.4244	
14	1.7833	1.7845	1.7945	1.7460	1.1033	0.5780		
	1.2184	1.2198	1.2182	1.2564	1.8211	3.4251		
15	0.8992	0.8991	0.8673	0.7570	F-SUB-Q			
	2.1892	2.1845	2.2627	2.6158	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7491	1.3976	1.2918	1.4236	1.8448	1.5750	1.8259	0.8980
	1.3460	1.6827	1.8168	1.6327	1.2525	1.4341	1.2405	2.2842
9	1.3976	1.7423	1.5226	1.8199	1.5072	1.5905	1.8281	0.8962
	1.6827	1.3492	1.5369	1.2763	1.5367	1.4255	1.2407	2.2837
10	1.2918	1.5230	1.2792	1.4078	1.8398	1.6132	1.8393	0.8630
	1.8168	1.5366	1.8315	1.6523	1.2561	1.4097	1.2351	2.3634
11	1.4236	1.8200	1.4082	1.8485	1.4402	1.8368	1.7897	0.7499
	1.6327	1.2763	1.6519	1.2548	1.6059	1.2512	1.2729	2.7365
12	1.8448	1.5071	1.8400	1.4403	1.5487	1.7998	1.1023	
	1.2525	1.5367	1.2560	1.6057	1.4839	1.2710	1.8889	
13	1.5750	1.5907	1.6135	1.8369	1.7999	1.1299	0.5729	
	1.4341	1.4254	1.4094	1.2511	1.2710	1.8499	3.5682	
14	1.8259	1.8283	1.8395	1.7899	1.1023	0.5728		
	1.2405	1.2406	1.2349	1.2728	1.8885	3.5690		
15	0.8980	0.8958	0.8640	0.7505	F-SUB-Q			
	2.2842	2.2840	2.3623	2.7356	M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7564	1.3986	1.2924	1.4261	1.8552	1.5816	1.8412	0.9001
	1.3886	1.7307	1.8624	1.6841	1.2997	1.4944	1.2876	2.3836
9	1.3986	1.7491	1.5256	1.8297	1.5108	1.5989	1.8445	0.8993
	1.7307	1.3877	1.5804	1.3185	1.5907	1.4827	1.2859	2.3798
10	1.2924	1.5260	1.2788	1.4116	1.8541	1.6241	1.8570	0.8662
	1.8624	1.5800	1.8831	1.7086	1.3015	1.4605	1.2779	2.4593
11	1.4261	1.8298	1.4120	1.8613	1.4465	1.8539	1.8078	0.7529
	1.6841	1.3184	1.7081	1.3026	1.6710	1.2947	1.3145	2.8400
12	1.8552	1.5107	1.8543	1.4466	1.5581	1.8169	1.1088	
	1.2997	1.5908	1.3014	1.6709	1.5386	1.3133	1.9588	
13	1.5816	1.5992	1.6244	1.8541	1.8169	1.1348	0.5731	
	1.4944	1.4825	1.4603	1.2946	1.3133	1.9193	3.7130	
14	1.8412	1.8447	1.8573	1.8080	1.1088	0.5730		
	1.2876	1.2857	1.2777	1.3143	1.9584	3.7139		
15	0.9001	0.8989	0.8672	0.7535	F-SUB-Q			
	2.3836	2.3802	2.4582	2.8392	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7414	1.3896	1.2939	1.4188	1.8435	1.5762	1.8334	0.9042
	1.3668	1.6998	1.8130	1.6494	1.2749	1.4762	1.2822	2.3511
9	1.3896	1.7339	1.5162	1.8162	1.5033	1.5944	1.8376	0.9056
	1.6998	1.3658	1.5503	1.2948	1.5579	1.4674	1.2825	2.3414
10	1.2939	1.5166	1.2732	1.4058	1.8444	1.6208	1.8511	0.8743
	1.8130	1.5499	1.8469	1.6730	1.2844	1.4509	1.2764	2.4196
11	1.4188	1.8163	1.4062	1.8507	1.4426	1.8469	1.8039	0.7623
	1.6494	1.2948	1.6725	1.2817	1.6405	1.2875	1.3161	2.7952
12	1.8435	1.5032	1.8446	1.4427	1.5536	1.8111	1.1205	
	1.2749	1.5580	1.2843	1.6403	1.5423	1.3212	1.9333	
13	1.5762	1.5946	1.6211	1.8471	1.8112	1.1433	0.5776	
	1.4762	1.4672	1.4507	1.2873	1.3211	1.9093	3.6984	
14	1.8334	1.8378	1.8513	1.8041	1.1205	0.5774		
	1.2822	1.2824	1.2763	1.3160	1.9330	3.6992		
15	0.9042	0.9052	0.8752	0.7630	F-SUB-Q			
	2.3511	2.3417	2.4186	2.7943	M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7690	1.3990	1.2913	1.4286	1.8744	1.5940	1.8712	0.9005
	1.3157	1.6500	1.7742	1.6016	1.2269	1.4285	1.2292	2.3063
9	1.3990	1.7608	1.5298	1.8468	1.5153	1.6140	1.8768	0.9006
	1.6500	1.3152	1.5016	1.2459	1.5120	1.4180	1.2282	2.3029
10	1.2913	1.5303	1.2759	1.4166	1.8798	1.6442	1.8917	0.8687
	1.7742	1.5012	1.7958	1.6241	1.2317	1.3977	1.2211	2.3789
11	1.4286	1.8469	1.4170	1.8844	1.4561	1.8859	1.8439	0.7539
	1.6016	1.2458	1.6236	1.2301	1.5881	1.2316	1.2576	2.7596
12	1.8744	1.5152	1.8800	1.4562	1.5749	1.8503	1.1169	
	1.2269	1.5121	1.2316	1.5879	1.4853	1.2624	1.8934	
13	1.5940	1.6143	1.6445	1.8860	1.8503	1.1402	0.5706	
	1.4285	1.4178	1.3975	1.2315	1.2624	1.8680	3.6499	
14	1.8712	1.8769	1.8920	1.8442	1.1169	0.5705		
	1.2292	1.2280	1.2209	1.2574	1.8931	3.6508		
15	0.9005	0.9000	0.8697	0.7546	F-SUB-Q			
	2.3063	2.3033	2.3778	2.7587	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7773	1.4001	1.2894	1.4305	1.8858	1.6009	1.8882	0.8990
	1.2643	1.5884	1.7118	1.5416	1.1767	1.3729	1.1768	2.2267
9	1.4001	1.7687	1.5327	1.8573	1.5181	1.6222	1.8949	0.9000
	1.5884	1.2617	1.4442	1.1943	1.4549	1.3624	1.1755	2.2216
10	1.2894	1.5332	1.2748	1.4192	1.8940	1.6551	1.9111	0.8677
	1.7118	1.4438	1.7314	1.5625	1.1810	1.3420	1.1684	2.2948
11	1.4305	1.8575	1.4196	1.8973	1.4610	1.9035	1.8643	0.7523
	1.5416	1.1942	1.5619	1.1798	1.5277	1.1799	1.2026	2.6632
12	1.8858	1.5180	1.8943	1.4611	1.5838	1.8689	1.1178	
	1.1767	1.4549	1.1809	1.5276	1.4301	1.2099	1.8251	
13	1.6009	1.6224	1.6554	1.9036	1.8689	1.1407	0.5675	
	1.3729	1.3622	1.3417	1.1798	1.2099	1.8035	3.5297	
14	1.8882	1.8951	1.9114	1.8645	1.1178	0.5673		
	1.1768	1.1754	1.1682	1.2025	1.8247	3.5305		
15	0.8990	0.8994	0.8687	0.7530	F-SUB-Q			
	2.2267	2.2225	2.2938	2.6622	M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7741	1.3955	1.2881	1.4269	1.8863	1.6006	1.8918	0.8981
	1.2236	1.5404	1.6570	1.4944	1.1368	1.3274	1.1350	2.1552
9	1.3955	1.7656	1.5296	1.8560	1.5150	1.6228	1.8993	0.8998
	1.5404	1.2210	1.3992	1.1551	1.4094	1.3161	1.1329	2.1481
10	1.2881	1.5301	1.2695	1.4162	1.8953	1.6568	1.9166	0.8688
	1.6570	1.3987	1.6812	1.5131	1.1396	1.2945	1.1250	2.2152
11	1.4269	1.8561	1.4167	1.8980	1.4595	1.9069	1.8705	0.7539
	1.4944	1.1550	1.5127	1.1387	1.4767	1.1367	1.1566	2.5671
12	1.8863	1.5149	1.8955	1.4596	1.5846	1.8736	1.1214	
	1.1368	1.4095	1.1395	1.4766	1.3792	1.1639	1.7555	
13	1.6006	1.6230	1.6571	1.9071	1.8736	1.1424	0.5667	
	1.3274	1.3159	1.2942	1.1366	1.1639	1.7371	3.4111	
14	1.8918	1.8995	1.9169	1.8707	1.1213	0.5665		
	1.1350	1.1328	1.1248	1.1565	1.7552	3.4119		
15	0.8981	0.8992	0.8698	0.7546	F-SUB-Q			
	2.1552	2.1487	2.2142	2.5662	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7528	* 1.3832	* 1.2859	* 1.4156	* 1.8672	* 1.5896	* 1.8753	* 0.8978
	* 1.2952	* 1.6268	* 1.7399	* 1.5788	* 1.2030	* 1.4003	* 1.1989	* 2.2593
9	* 1.3832	* 1.7449	* 1.5162	* 1.8359	* 1.5030	* 1.6121	* 1.8833	* 0.9006
	* 1.6268	* 1.2929	* 1.4791	* 1.2231	* 1.4887	* 1.3873	* 1.1959	* 2.2466
10	* 1.2859	* 1.5168	* 1.2653	* 1.4051	* 1.8763	* 1.6462	* 1.9014	* 0.8721
	* 1.7399	* 1.4785	* 1.7718	* 1.5968	* 1.2044	* 1.3631	* 1.1865	* 2.3116
11	* 1.4156	* 1.8360	* 1.4056	* 1.8787	* 1.4494	* 1.8900	* 1.8571	* 0.7587
	* 1.5788	* 1.2230	* 1.5964	* 1.2034	* 1.5558	* 1.1987	* 1.2179	* 2.6705
12	* 1.8672	* 1.5029	* 1.8765	* 1.4495	* 1.5734	* 1.8579	* 1.1267	
	* 1.2030	* 1.4888	* 1.2043	* 1.5557	* 1.4509	* 1.2255	* 1.8264	
13	* 1.5896	* 1.6124	* 1.6465	* 1.8902	* 1.8580	* 1.1454	* 0.5679	
	* 1.4003	* 1.3871	* 1.3629	* 1.1986	* 1.2254	* 1.8095	* 3.5586	
14	* 1.8753	* 1.8835	* 1.9017	* 1.8574	* 1.1267	* 0.5678		
	* 1.1989	* 1.1957	* 1.1863	* 1.2177	* 1.8261	* 3.5594		
15	* 0.8978	* 0.9001	* 0.8730	* 0.7594	F-SUB-Q			
	* 2.2593	* 2.2470	* 2.3108	* 2.6696	M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7693	* 1.3838	* 1.2744	* 1.4163	* 1.8867	* 1.5968	* 1.9000	* 0.8855
	* 1.2348	* 1.5684	* 1.6999	* 1.5293	* 1.1535	* 1.3522	* 1.1474	* 2.2246
9	* 1.3838	* 1.7617	* 1.5214	* 1.8551	* 1.5053	* 1.6204	* 1.9089	* 0.8885
	* 1.5684	* 1.2357	* 1.4269	* 1.1721	* 1.4407	* 1.3381	* 1.1434	* 2.2122
10	* 1.2744	* 1.5221	* 1.2562	* 1.4054	* 1.8969	* 1.6567	* 1.9281	* 0.8573
	* 1.6999	* 1.4263	* 1.7249	* 1.5453	* 1.1524	* 1.3113	* 1.1331	* 2.2815
11	* 1.4163	* 1.8552	* 1.4058	* 1.8986	* 1.4509	* 1.9156	* 1.8828	* 0.7414
	* 1.5293	* 1.1720	* 1.5449	* 1.1510	* 1.5032	* 1.1434	* 1.1617	* 2.6495
12	* 1.8867	* 1.5052	* 1.8971	* 1.4510	* 1.5828	* 1.8827	* 1.1099	
	* 1.1535	* 1.4408	* 1.1522	* 1.5030	* 1.3898	* 1.1667	* 1.7919	
13	* 1.5968	* 1.6207	* 1.6570	* 1.9158	* 1.8828	* 1.1312	* 0.5548	
	* 1.3522	* 1.3379	* 1.3111	* 1.1433	* 1.1667	* 1.7675	* 3.5258	
14	* 1.9000	* 1.9091	* 1.9284	* 1.8830	* 1.1099	* 0.5546		
	* 1.1474	* 1.1432	* 1.1329	* 1.1616	* 1.7915	* 3.5267		
15	* 0.8855	* 0.8878	* 0.8583	* 0.7421	F-SUB-Q			
	* 2.2246	* 2.2131	* 2.2805	* 2.6484	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7466	1.3657	1.2582	1.3986	1.8664	1.5806	1.8822	0.8719
	1.2028	1.5314	1.6635	1.4960	1.1256	1.3194	1.1179	2.1833
9	1.3657	1.7408	1.5045	1.8342	1.4873	1.6042	1.8911	0.8752
	1.5314	1.2054	1.3936	1.1443	1.4084	1.3049	1.1135	2.1698
10	1.2582	1.5052	1.2395	1.3867	1.8745	1.6395	1.9103	0.8446
	1.6635	1.3930	1.6889	1.5115	1.1245	1.2781	1.1031	2.2372
11	1.3986	1.8344	1.3872	1.8768	1.4319	1.8952	1.8651	0.7293
	1.4960	1.1442	1.5111	1.1224	1.4686	1.1136	1.1301	2.6008
12	1.8664	1.4872	1.8747	1.4321	1.5659	1.8638	1.0941	
	1.1256	1.4085	1.1244	1.4685	1.3500	1.1337	1.7520	
13	1.5806	1.6045	1.6398	1.8954	1.8639	1.1165	0.5448	
	1.3194	1.3047	1.2779	1.1135	1.1336	1.7231	3.4631	
14	1.8822	1.8913	1.9105	1.8654	1.0941	0.5446		
	1.1179	1.1134	1.1029	1.1300	1.7516	3.4640		
15	0.8719	0.8745	0.8456	0.7300	F-SUB-Q			
	2.1833	2.1708	2.2361	2.5997	M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6722	1.3217	1.2314	1.3550	1.7926	1.5323	1.8070	0.8539
	1.2173	1.5346	1.6510	1.4995	1.1372	1.3211	1.1296	2.1660
9	1.3217	1.6692	1.4573	1.7595	1.4410	1.5545	1.8152	0.8566
	1.5346	1.2189	1.3968	1.1576	1.4114	1.3066	1.1251	2.1531
10	1.2314	1.4580	1.2088	1.3420	1.7946	1.5850	1.8329	0.8308
	1.6510	1.3962	1.6836	1.5156	1.1387	1.2819	1.1145	2.2089
11	1.3550	1.7596	1.3425	1.7993	1.3848	1.8124	1.7887	0.7194
	1.4995	1.1575	1.5151	1.1348	1.4726	1.1282	1.1418	2.5598
12	1.7926	1.4409	1.7948	1.3850	1.5138	1.7865	1.0749	
	1.1372	1.4115	1.1385	1.4725	1.3520	1.1446	1.7286	
13	1.5323	1.5548	1.5853	1.8127	1.7865	1.0970	0.5362	
	1.3211	1.3064	1.2817	1.1281	1.1446	1.6985	3.4136	
14	1.8070	1.8154	1.8332	1.7889	1.0749	0.5360		
	1.1296	1.1249	1.1144	1.1416	1.7283	3.4145		
15	0.8539	0.8561	0.8317	0.7201	F-SUB-Q			
	2.1660	2.1535	2.2080	2.5587	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6073	1.2744	1.1769	1.3052	1.7258	1.4814	1.7396	0.8114
	1.2350	1.5532	1.6869	1.5200	1.1523	1.3335	1.1445	2.2266
9	1.2744	1.6074	1.4095	1.6937	1.3900	1.5026	1.7470	0.8134
	1.5532	1.2348	1.4097	1.1734	1.4283	1.3189	1.1399	2.2146
10	1.1769	1.4103	1.1610	1.2912	1.7239	1.5296	1.7667	0.7857
	1.6869	1.4090	1.7103	1.5370	1.1558	1.2953	1.1280	2.2810
11	1.3052	1.6939	1.2917	1.7306	1.3311	1.7377	1.7185	0.6758
	1.5200	1.1733	1.5366	1.1503	1.4943	1.1466	1.1582	2.6607
12	1.7258	1.3899	1.7241	1.3312	1.4619	1.7177	1.0152	
	1.1523	1.4284	1.1556	1.4941	1.3641	1.1596	1.7848	
13	1.4814	1.5028	1.5299	1.7380	1.7177	1.0433	0.5058	
	1.3335	1.3187	1.2950	1.1465	1.1596	1.7409	3.5320	
14	1.7396	1.7472	1.7669	1.7188	1.0151	0.5057		
	1.1445	1.1398	1.1278	1.1580	1.7845	3.5330		
15	0.8114	0.8128	0.7866	0.6764	F-SUB-Q			
	2.2266	2.2156	2.2799	2.6596	M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4501	1.1710	1.0797	1.1974	1.5563	1.3560	1.5629	0.7449
	1.3423	1.6579	1.8044	1.6258	1.2535	1.4291	1.2492	2.3818
9	1.1710	1.4495	1.2915	1.5260	1.2745	1.3746	1.5681	0.7464
	1.6579	1.3431	1.5094	1.2776	1.5282	1.4137	1.2452	2.3697
10	1.0797	1.2922	1.0664	1.1843	1.5530	1.3975	1.5901	0.7204
	1.8044	1.5087	1.8276	1.6437	1.2575	1.3897	1.2284	2.4428
11	1.1974	1.5261	1.1847	1.5598	1.2216	1.5604	1.5444	0.6162
	1.6258	1.2775	1.6432	1.2513	1.5965	1.2517	1.2631	2.8652
12	1.5563	1.2745	1.5532	1.2217	1.3373	1.5452	0.9275	
	1.2535	1.5282	1.2574	1.5964	1.4615	1.2631	1.9160	
13	1.3560	1.3749	1.3978	1.5605	1.5452	0.9554	0.4628	
	1.4291	1.4135	1.3895	1.2516	1.2630	1.8641	3.7912	
14	1.5629	1.5683	1.5903	1.5446	0.9275	0.4627		
	1.2492	1.2451	1.2282	1.2629	1.9157	3.7923		
15	0.7449	0.7459	0.7212	0.6168	F-SUB-Q			
	2.3818	2.3707	2.4417	2.8639	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 175 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2297 *	* 0.9526 *	* 0.8717 *	* 0.9681 *	* 1.2922 *	* 1.0863 *	* 1.2923 *	* 0.6078 *
	* 1.5603 *	* 2.0093 *	* 2.2039 *	* 1.9823 *	* 1.4881 *	* 1.7583 *	* 1.4894 *	* 2.8812 *
9	* 0.9526 *	* 1.2154 *	* 1.0433 *	* 1.2730 *	* 1.0341 *	* 1.0983 *	* 1.2946 *	* 0.6132 *
	* 2.0093 *	* 1.5791 *	* 1.8418 *	* 1.5098 *	* 1.8565 *	* 1.7438 *	* 1.4867 *	* 2.8470 *
10	* 0.8717 *	* 1.0438 *	* 0.8582 *	* 0.9639 *	* 1.3093 *	* 1.1198 *	* 1.2952 *	* 0.5880 *
	* 2.2039 *	* 1.8410 *	* 2.2392 *	* 1.9910 *	* 1.4699 *	* 1.7083 *	* 1.4858 *	* 2.9539 *
11	* 0.9681 *	* 1.2731 *	* 0.9642 *	* 1.3080 *	* 0.9940 *	* 1.3107 *	* 1.2504 *	* 0.5004 *
	* 1.9823 *	* 1.5097 *	* 1.9905 *	* 1.4703 *	* 1.9333 *	* 1.4683 *	* 1.5374 *	* 3.4830 *
12	* 1.2922 *	* 1.0340 *	* 1.3094 *	* 0.9940 *	* 1.0839 *	* 1.2623 *	* 0.7570 *	
	* 1.4881 *	* 1.8566 *	* 1.4698 *	* 1.9332 *	* 1.7768 *	* 1.5236 *	* 2.3151 *	
13	* 1.0863 *	* 1.0985 *	* 1.1199 *	* 1.3108 *	* 1.2623 *	* 0.7761 *	* 0.3750 *	
	* 1.7583 *	* 1.7436 *	* 1.7080 *	* 1.4681 *	* 1.5236 *	* 2.2626 *	* 4.6204 *	
14	* 1.2923 *	* 1.2947 *	* 1.2953 *	* 1.2505 *	* 0.7570 *	* 0.3749 *		
	* 1.4894 *	* 1.4866 *	* 1.4857 *	* 1.5373 *	* 2.3147 *	* 4.6215 *		
15	* 0.6078 *	* 0.6128 *	* 0.5885 *	* 0.5009 *	F-SUB-Q			
	* 2.8812 *	* 2.8480 *	* 2.9530 *	* 3.4816 *	M-SUB-Q			

AT 100% POWER, 175 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4888 *	* 0.4113 *	* 0.3856 *	* 0.4258 *	* 0.5111 *	* 0.4348 *	* 0.4797 *	* 0.2544 *
	* 3.8879 *	* 4.6091 *	* 4.9362 *	* 4.4637 *	* 3.7270 *	* 4.3475 *	* 3.9745 *	* 6.8284 *
9	* 0.4113 *	* 0.4772 *	* 0.4213 *	* 0.5003 *	* 0.4436 *	* 0.4387 *	* 0.4796 *	* 0.2559 *
	* 4.6091 *	* 3.9841 *	* 4.5179 *	* 3.8052 *	* 4.2857 *	* 4.3206 *	* 3.9754 *	* 6.7687 *
10	* 0.3856 *	* 0.4215 *	* 0.3804 *	* 0.4248 *	* 0.5150 *	* 0.4468 *	* 0.4778 *	* 0.2482 *
	* 4.9362 *	* 4.5160 *	* 5.0043 *	* 4.4741 *	* 3.6997 *	* 4.2372 *	* 3.9893 *	* 6.9426 *
11	* 0.4258 *	* 0.5004 *	* 0.4249 *	* 0.5001 *	* 0.4364 *	* 0.5107 *	* 0.4570 *	* 0.2153 *
	* 4.4637 *	* 3.8048 *	* 4.4732 *	* 3.8085 *	* 4.3603 *	* 3.7313 *	* 4.1689 *	* 8.0319 *
12	* 0.5111 *	* 0.4436 *	* 0.5151 *	* 0.4365 *	* 0.4297 *	* 0.4668 *	* 0.3139 *	
	* 3.7270 *	* 4.2858 *	* 3.6993 *	* 4.3600 *	* 4.4364 *	* 4.0817 *	* 5.5357 *	
13	* 0.4348 *	* 0.4387 *	* 0.4468 *	* 0.5107 *	* 0.4668 *	* 0.3204 *	* 0.1652 *	
	* 4.3475 *	* 4.3201 *	* 4.2369 *	* 3.7311 *	* 4.0817 *	* 5.4332 *	* 10.4104 *	
14	* 0.4797 *	* 0.4796 *	* 0.4779 *	* 0.4570 *	* 0.3139 *	* 0.1652 *		
	* 3.9745 *	* 3.9752 *	* 3.9888 *	* 4.1684 *	* 5.5349 *	* 10.4123 *		
15	* 0.2544 *	* 0.2558 *	* 0.2483 *	* 0.2155 *	F-SUB-Q			
	* 6.8284 *	* 6.7692 *	* 6.9428 *	* 8.0302 *	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4511	* 0.4464	* 0.4454	* 0.4759	* 0.5442	* 0.4772	* 0.4958	* 0.2865
	* 3.4348	* 3.9149	* 4.1962	* 3.8017	* 3.3626	* 3.7052	* 3.6416	* 5.6431
9	* 0.4464	* 0.5154	* 0.4730	* 0.5386	* 0.4933	* 0.4766	* 0.4948	* 0.2867
	* 3.9149	* 3.5957	* 3.9300	* 3.4372	* 3.6573	* 3.7442	* 3.6651	* 5.6496
10	* 0.4454	* 0.4730	* 0.4409	* 0.4709	* 0.5389	* 0.4766	* 0.4876	* 0.2755
	* 4.1962	* 3.9292	* 4.2274	* 3.9334	* 3.5002	* 3.8410	* 3.8043	* 5.9275
11	* 0.4759	* 0.5387	* 0.4709	* 0.5217	* 0.4672	* 0.5163	* 0.4624	* 0.2431
	* 3.8017	* 3.4370	* 3.9330	* 3.5725	* 3.9031	* 3.5983	* 4.0606	* 6.9333
12	* 0.5442	* 0.4933	* 0.5389	* 0.4672	* 0.4191	* 0.4556	* 0.3298	
	* 3.3626	* 3.6571	* 3.4999	* 3.9029	* 3.8621	* 3.8212	* 5.0253	
13	* 0.4772	* 0.4766	* 0.4766	* 0.5163	* 0.4556	* 0.3290	* 0.1939	
	* 3.7052	* 3.7442	* 3.8407	* 3.5982	* 3.8212	* 4.6696	* 8.1923	
14	* 0.4958	* 0.4948	* 0.4876	* 0.4625	* 0.3299	* 0.1939		
	* 3.6416	* 3.6650	* 3.8039	* 4.0603	* 5.0248	* 8.1925		
15	* 0.2865	* 0.2867	* 0.2758	* 0.2432				F-SUB-Q
	* 5.6431	* 5.6487	* 5.9246	* 6.9311				M-SUB-Q

AT 100% POWER, 250 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1048	* 0.9437	* 0.9028	* 0.9671	* 1.1890	* 1.0413	* 1.1497	* 0.6325
	* 1.6216	* 1.9297	* 2.1139	* 1.9123	* 1.5759	* 1.7384	* 1.6064	* 2.6172
9	* 0.9437	* 1.1330	* 1.0328	* 1.1789	* 1.0207	* 1.0408	* 1.1479	* 0.6330
	* 1.9297	* 1.6608	* 1.8422	* 1.6039	* 1.8071	* 1.7476	* 1.6155	* 2.6206
10	* 0.9028	* 1.0329	* 0.8936	* 0.9573	* 1.1783	* 1.0465	* 1.1358	* 0.6028
	* 2.1139	* 1.8420	* 2.1322	* 1.9761	* 1.6320	* 1.7876	* 1.6672	* 2.7702
11	* 0.9671	* 1.1789	* 0.9574	* 1.1863	* 0.9575	* 1.1513	* 1.0879	* 0.5252
	* 1.9123	* 1.6038	* 1.9759	* 1.6033	* 1.9427	* 1.6440	* 1.7482	* 3.2776
12	* 1.1890	* 1.0208	* 1.1784	* 0.9575	* 0.9776	* 1.0956	* 0.7340	
	* 1.5759	* 1.8070	* 1.6320	* 1.9426	* 1.7869	* 1.6650	* 2.3045	
13	* 1.0413	* 1.0409	* 1.0466	* 1.1514	* 1.0956	* 0.7566	* 0.4179	
	* 1.7384	* 1.7476	* 1.7875	* 1.6439	* 1.6650	* 2.1510	* 3.8966	
14	* 1.1497	* 1.1479	* 1.1359	* 1.0881	* 0.7340	* 0.4179		
	* 1.6064	* 1.6154	* 1.6670	* 1.7480	* 2.3043	* 3.8969		
15	* 0.6325	* 0.6329	* 0.6034	* 0.5256				F-SUB-Q
	* 2.6172	* 2.6204	* 2.7692	* 3.2764				M-SUB-Q

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3567	1.1540	1.0872	1.1699	1.4182	1.2593	1.3735	0.7708
	1.4038	1.6330	1.7823	1.6037	1.3390	1.4506	1.3612	2.1773
9	1.1540	1.3582	1.2430	1.4042	1.2295	1.2653	1.3715	0.7682
	1.6330	1.4209	1.5526	1.3651	1.5213	1.4594	1.3687	2.1833
10	1.0872	1.2430	1.0794	1.1549	1.3972	1.2643	1.3681	0.7370
	1.7823	1.5525	1.7910	1.6601	1.3922	1.4916	1.4023	2.2961
11	1.1699	1.4042	1.1551	1.4107	1.1620	1.3747	1.3182	0.6461
	1.6037	1.3650	1.6599	1.3713	1.6296	1.4004	1.4630	2.6990
12	1.4182	1.2295	1.3973	1.1620	1.2200	1.3379	0.9055	
	1.3390	1.5213	1.3921	1.6295	1.5158	1.4057	1.9014	
13	1.2593	1.2654	1.2645	1.3748	1.3380	0.9353	0.5160	
	1.4506	1.4593	1.4914	1.4003	1.4057	1.8077	3.2246	
14	1.3735	1.3715	1.3683	1.3183	0.9055	0.5159		
	1.3612	1.3687	1.4021	1.4628	1.9012	3.2248		
15	0.7708	0.7681	0.7379	0.6466	F-SUB-Q			
	2.1773	2.1831	2.2952	2.6979	M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5434	1.2715	1.1873	1.2853	1.6031	1.3929	1.5648	0.8355
	1.2632	1.5155	1.6571	1.4795	1.2001	1.3271	1.2086	2.0338
9	1.2715	1.5374	1.3680	1.5872	1.3518	1.4004	1.5631	0.8305
	1.5155	1.2806	1.4296	1.2235	1.4020	1.3354	1.2147	2.0449
10	1.1873	1.3681	1.1798	1.2707	1.5901	1.4035	1.5607	0.7958
	1.6571	1.4295	1.6612	1.5309	1.2421	1.3579	1.2426	2.1524
11	1.2853	1.5872	1.2709	1.6015	1.2847	1.5725	1.5100	0.6968
	1.4795	1.2235	1.5306	1.2288	1.5004	1.2443	1.2954	2.5320
12	1.6031	1.3519	1.5902	1.2847	1.3597	1.5320	0.9885	
	1.2001	1.4020	1.2420	1.5003	1.3910	1.2523	1.7731	
13	1.3929	1.4005	1.4038	1.5726	1.5320	1.0212	0.5545	
	1.3271	1.3353	1.3578	1.2443	1.2523	1.6945	3.0634	
14	1.5648	1.5632	1.5609	1.5101	0.9886	0.5543		
	1.2086	1.2147	1.2425	1.2952	1.7730	3.0636		
15	0.8355	0.8302	0.7968	0.6974	F-SUB-Q			
	2.0338	2.0448	2.1513	2.5309	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6223	* 1.3160	* 1.2224	* 1.3301	* 1.6818	* 1.4458	* 1.6500	* 0.8676
	* 1.2272	* 1.4946	* 1.6294	* 1.4500	* 1.1602	* 1.2956	* 1.1610	* 1.9859
9	* 1.3160	* 1.6111	* 1.4148	* 1.6649	* 1.4001	* 1.4561	* 1.6488	* 0.8647
	* 1.4946	* 1.2467	* 1.4003	* 1.1829	* 1.3727	* 1.3034	* 1.1663	* 1.9913
10	* 1.2224	* 1.4149	* 1.2146	* 1.3177	* 1.6781	* 1.4672	* 1.6479	* 0.8285
	* 1.6294	* 1.4002	* 1.6369	* 1.4965	* 1.1979	* 1.3195	* 1.1904	* 2.0950
11	* 1.3301	* 1.6650	* 1.3180	* 1.6869	* 1.3386	* 1.6658	* 1.6031	* 0.7278
	* 1.4500	* 1.1829	* 1.4962	* 1.1883	* 1.4678	* 1.1960	* 1.2414	* 2.4536
12	* 1.6818	* 1.4001	* 1.6782	* 1.3387	* 1.4181	* 1.6213	* 1.0364	
	* 1.1602	* 1.3727	* 1.1978	* 1.4677	* 1.3615	* 1.2073	* 1.7240	
13	* 1.4459	* 1.4562	* 1.4675	* 1.6659	* 1.6213	* 1.0643	* 0.5741	
	* 1.2956	* 1.3033	* 1.3193	* 1.1959	* 1.2073	* 1.6609	* 3.0230	
14	* 1.6500	* 1.6488	* 1.6481	* 1.6033	* 1.0364	* 0.5740		
	* 1.1610	* 1.1663	* 1.1903	* 1.2412	* 1.7239	* 3.0232		
15	* 0.8676	* 0.8644	* 0.8295	* 0.7284	* F-SUB-Q			
	* 1.9859	* 1.9913	* 2.0940	* 2.4525	* M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6516	* 1.3304	* 1.2335	* 1.3449	* 1.7119	* 1.4651	* 1.6863	* 0.8830
	* 1.2298	* 1.5073	* 1.6312	* 1.4571	* 1.1586	* 1.2986	* 1.1537	* 1.9836
9	* 1.3304	* 1.6374	* 1.4300	* 1.6945	* 1.4170	* 1.4772	* 1.6856	* 0.8823
	* 1.5073	* 1.2500	* 1.4064	* 1.1810	* 1.3782	* 1.3061	* 1.1582	* 1.9838
10	* 1.2335	* 1.4301	* 1.2237	* 1.3367	* 1.7163	* 1.4947	* 1.6872	* 0.8465
	* 1.6312	* 1.4063	* 1.6496	* 1.4994	* 1.1884	* 1.3162	* 1.1787	* 2.0818
11	* 1.3449	* 1.6945	* 1.3369	* 1.7228	* 1.3618	* 1.7081	* 1.6460	* 0.7462
	* 1.4571	* 1.1810	* 1.4991	* 1.1829	* 1.4678	* 1.1854	* 1.2272	* 2.4247
12	* 1.7119	* 1.4170	* 1.7164	* 1.3619	* 1.4426	* 1.6614	* 1.0636	
	* 1.1586	* 1.3782	* 1.1883	* 1.4677	* 1.3661	* 1.2027	* 1.7120	
13	* 1.4651	* 1.4774	* 1.4949	* 1.7082	* 1.6614	* 1.0865	* 0.5844	
	* 1.2986	* 1.3060	* 1.3161	* 1.1854	* 1.2027	* 1.6646	* 3.0376	
14	* 1.6863	* 1.6856	* 1.6874	* 1.6462	* 1.0636	* 0.5842		
	* 1.1537	* 1.1582	* 1.1785	* 1.2271	* 1.7119	* 3.0378		
15	* 0.8830	* 0.8820	* 0.8475	* 0.7467	* F-SUB-Q			
	* 1.9836	* 1.9838	* 2.0809	* 2.4237	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6797	1.3406	1.2376	1.3552	1.7409	1.4816	1.7221	0.8865
	1.2331	1.5236	1.6555	1.4745	1.1615	1.3083	1.1512	2.0150
9	1.3406	1.6631	1.4424	1.7232	1.4295	1.4954	1.7223	0.8856
	1.5236	1.2510	1.4173	1.1831	1.3928	1.3133	1.1549	2.0151
10	1.2376	1.4426	1.2303	1.3498	1.7526	1.5181	1.7256	0.8498
	1.6555	1.4171	1.6676	1.5076	1.1755	1.3170	1.1709	2.1110
11	1.3552	1.7232	1.3501	1.7571	1.3782	1.7481	1.6867	0.7475
	1.4745	1.1831	1.5074	1.1748	1.4694	1.1733	1.2102	2.4537
12	1.7409	1.4295	1.7528	1.3783	1.4634	1.6994	1.0717	
	1.1615	1.3928	1.1754	1.4693	1.3739	1.1992	1.7273	
13	1.4816	1.4955	1.5184	1.7483	1.6994	1.0924	0.5841	
	1.3083	1.3132	1.3168	1.1732	1.1992	1.6894	3.1020	
14	1.7221	1.7224	1.7258	1.6868	1.0717	0.5840		
	1.1512	1.1548	1.1707	1.2101	1.7272	3.1023		
15	0.8865	0.8852	0.8507	0.7481	F-SUB-Q			
	2.0150	2.0152	2.1101	2.4527	M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6897	1.3415	1.2358	1.3560	1.7507	1.4866	1.7381	0.8873
	1.2467	1.5490	1.6862	1.5078	1.1819	1.3344	1.1670	2.0610
9	1.3415	1.6713	1.4439	1.7334	1.4313	1.5011	1.7396	0.8868
	1.5490	1.2670	1.4388	1.2023	1.4233	1.3358	1.1697	2.0597
10	1.2358	1.4441	1.2287	1.3530	1.7689	1.5281	1.7440	0.8514
	1.6862	1.4386	1.6966	1.5301	1.1873	1.3291	1.1806	2.1519
11	1.3560	1.7335	1.3532	1.7717	1.3840	1.7676	1.7073	0.7489
	1.5078	1.2023	1.5298	1.1868	1.4902	1.1811	1.2174	2.4842
12	1.7507	1.4313	1.7691	1.3841	1.4717	1.7178	1.0771	
	1.1819	1.4233	1.1872	1.4901	1.3882	1.2048	1.7467	
13	1.4866	1.5013	1.5283	1.7677	1.7178	1.0953	0.5831	
	1.3344	1.3357	1.3289	1.1810	1.2047	1.7146	3.1538	
14	1.7381	1.7397	1.7442	1.7074	1.0770	0.5830		
	1.1670	1.1697	1.1805	1.2173	1.7466	3.1541		
15	0.8873	0.8864	0.8524	0.7494	F-SUB-Q			
	2.0610	2.0598	2.1510	2.4831	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7020	1.3426	1.2344	1.3568	1.7627	1.4919	1.7553	0.8856
	1.2769	1.5940	1.7299	1.5487	1.2067	1.3673	1.1879	2.1237
9	1.3426	1.6823	1.4467	1.7454	1.4333	1.5073	1.7579	0.8835
	1.5940	1.2951	1.4688	1.2258	1.4607	1.3647	1.1897	2.1256
10	1.2344	1.4470	1.2283	1.3558	1.7865	1.5374	1.7631	0.8496
	1.7299	1.4685	1.7344	1.5610	1.1986	1.3469	1.1952	2.2120
11	1.3568	1.7455	1.3561	1.7876	1.3887	1.7877	1.7278	0.7459
	1.5487	1.2258	1.5608	1.2055	1.5229	1.1967	1.2269	2.5459
12	1.7627	1.4332	1.7866	1.3887	1.4798	1.7370	1.0773	
	1.2067	1.4608	1.1985	1.5228	1.4210	1.2244	1.7930	
13	1.4919	1.5074	1.5377	1.7878	1.7370	1.0945	0.5800	
	1.3673	1.3646	1.3466	1.1966	1.2243	1.7637	3.2537	
14	1.7553	1.7580	1.7633	1.7280	1.0773	0.5799		
	1.1879	1.1896	1.1951	1.2268	1.7929	3.2541		
15	0.8856	0.8831	0.8505	0.7465	F-SUB-Q			
	2.1237	2.1258	2.2111	2.5449	M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6816	1.3307	1.2331	1.3447	1.7419	1.4794	1.7378	0.8875
	1.3349	1.6578	1.7829	1.6142	1.2618	1.4251	1.2397	2.1901
9	1.3307	1.6614	1.4320	1.7247	1.4205	1.4956	1.7410	0.8897
	1.6578	1.3482	1.5288	1.2803	1.5226	1.4186	1.2405	2.1808
10	1.2331	1.4323	1.2205	1.3451	1.7687	1.5266	1.7473	0.8578
	1.7829	1.5285	1.7976	1.6182	1.2441	1.3946	1.2412	2.2587
11	1.3447	1.7247	1.3455	1.7694	1.3796	1.7719	1.7140	0.7550
	1.6142	1.2803	1.6180	1.2492	1.5718	1.2375	1.2690	2.5866
12	1.7419	1.4204	1.7689	1.3797	1.4686	1.7221	1.0874	
	1.2618	1.5226	1.2441	1.5717	1.4775	1.2725	1.8212	
13	1.4794	1.4957	1.5268	1.7720	1.7221	1.1008	0.5842	
	1.4251	1.4184	1.3944	1.2374	1.2725	1.8126	3.3255	
14	1.7378	1.7411	1.7475	1.7142	1.0874	0.5841		
	1.2397	1.2405	1.2411	1.2689	1.8211	3.3258		
15	0.8875	0.8893	0.8589	0.7555	F-SUB-Q			
	2.1901	2.1810	2.2573	2.5855	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7092	1.3387	1.2283	1.3516	1.7688	1.4924	1.7692	0.8827
	1.3574	1.7039	1.8568	1.6684	1.2913	1.4678	1.2650	2.2870
9	1.3387	1.6875	1.4434	1.7515	1.4291	1.5095	1.7736	0.8829
	1.7039	1.3734	1.5734	1.3088	1.5722	1.4581	1.2639	2.2819
10	1.2283	1.4438	1.2201	1.3536	1.8004	1.5445	1.7810	0.8492
	1.8568	1.5730	1.8651	1.6676	1.2668	1.4283	1.2612	2.3653
11	1.3516	1.7516	1.3539	1.7998	1.3897	1.8067	1.7494	0.7458
	1.6684	1.3088	1.6674	1.2720	1.6158	1.2561	1.2868	2.7077
12	1.7688	1.4291	1.8005	1.3897	1.4853	1.7559	1.0815	
	1.2913	1.5723	1.2668	1.6157	1.5072	1.2875	1.8913	
13	1.4924	1.5097	1.5447	1.8068	1.7559	1.0953	0.5764	
	1.4678	1.4580	1.4281	1.2561	1.2875	1.8765	3.4699	
14	1.7692	1.7737	1.7812	1.7495	1.0814	0.5763		
	1.2650	1.2639	1.2611	1.2867	1.8913	3.4703		
15	0.8827	0.8825	0.8501	0.7464	F-SUB-Q			
	2.2870	2.2822	2.3644	2.7065	M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7154	1.3391	1.2281	1.3513	1.7744	1.4945	1.7780	0.8827
	1.4072	1.7593	1.9098	1.7282	1.3443	1.5301	1.3138	2.3860
9	1.3391	1.6928	1.4441	1.7572	1.4293	1.5125	1.7833	0.8834
	1.7593	1.4188	1.6236	1.3584	1.6348	1.5175	1.3108	2.3788
10	1.2281	1.4445	1.2183	1.3544	1.8094	1.5498	1.7919	0.8502
	1.9098	1.6232	1.9276	1.7346	1.3137	1.4809	1.3059	2.4614
11	1.3513	1.7573	1.3547	1.8081	1.3921	1.8180	1.7619	0.7466
	1.7282	1.3584	1.7343	1.3203	1.6815	1.3006	1.3300	2.8117
12	1.7744	1.4292	1.8095	1.3921	1.4899	1.7672	1.0853	
	1.3443	1.6349	1.3136	1.6814	1.5636	1.3312	1.9613	
13	1.4945	1.5127	1.5501	1.8181	1.7672	1.0975	0.5755	
	1.5301	1.5174	1.4808	1.3006	1.3312	1.9468	3.6098	
14	1.7780	1.7834	1.7920	1.7621	1.0852	0.5754		
	1.3138	1.3108	1.3057	1.3299	1.9613	3.6102		
15	0.8827	0.8830	0.8511	0.7472	F-SUB-Q			
	2.3860	2.3791	2.4604	2.8104	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7035	* 1.3331	* 1.2313	* 1.3448	* 1.7621	* 1.4879	* 1.7688	* 0.8860
	* 1.3827	* 1.7235	* 1.8557	* 1.6913	* 1.3191	* 1.5183	* 1.3151	* 2.3616
9	* 1.3331	* 1.6804	* 1.4359	* 1.7450	* 1.4223	* 1.5067	* 1.7747	* 0.8891
	* 1.7235	* 1.3941	* 1.5912	* 1.3330	* 1.6002	* 1.5085	* 1.3142	* 2.3481
10	* 1.2313	* 1.4363	* 1.2191	* 1.3489	* 1.7997	* 1.5450	* 1.7842	* 0.8589
	* 1.8557	* 1.5907	* 1.8803	* 1.6971	* 1.3029	* 1.4778	* 1.3107	* 2.4255
11	* 1.3448	* 1.7451	* 1.3493	* 1.7980	* 1.3879	* 1.8100	* 1.7560	* 0.7553
	* 1.6913	* 1.3329	* 1.6968	* 1.3055	* 1.6585	* 1.3005	* 1.3384	* 2.7758
12	* 1.7621	* 1.4222	* 1.7998	* 1.3880	* 1.4844	* 1.7601	* 1.0962	
	* 1.3191	* 1.6002	* 1.3028	* 1.6584	* 1.5737	* 1.3453	* 1.9432	
13	* 1.4879	* 1.5069	* 1.5452	* 1.8101	* 1.7601	* 1.1053	* 0.5800	
	* 1.5183	* 1.5084	* 1.4776	* 1.3005	* 1.3453	* 1.9426	* 3.5991	
14	* 1.7688	* 1.7748	* 1.7844	* 1.7561	* 1.0961	* 0.5798		
	* 1.3151	* 1.3141	* 1.3106	* 1.3383	* 1.9432	* 3.5996		
15	* 0.8860	* 0.8887	* 0.8600	* 0.7558	* F-SUB-Q			
	* 2.3616	* 2.3484	* 2.4241	* 2.7746	* M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7348	* 1.3447	* 1.2297	* 1.3552	* 1.7927	* 1.5043	* 1.8044	* 0.8833
	* 1.3281	* 1.6714	* 1.8176	* 1.6428	* 1.2689	* 1.4695	* 1.2612	* 2.3183
9	* 1.3447	* 1.7101	* 1.4507	* 1.7756	* 1.4343	* 1.5243	* 1.8115	* 0.8838
	* 1.6714	* 1.3400	* 1.5413	* 1.2819	* 1.5530	* 1.4586	* 1.2591	* 2.3114
10	* 1.2297	* 1.4511	* 1.2182	* 1.3605	* 1.8343	* 1.5665	* 1.8223	* 0.8524
	* 1.8176	* 1.5408	* 1.8367	* 1.6454	* 1.2494	* 1.4244	* 1.2545	* 2.3903
11	* 1.3552	* 1.7757	* 1.3609	* 1.8318	* 1.4012	* 1.8477	* 1.7958	* 0.7479
	* 1.6428	* 1.2818	* 1.6451	* 1.2523	* 1.6052	* 1.2445	* 1.2781	* 2.7393
12	* 1.7927	* 1.4342	* 1.8344	* 1.4012	* 1.5046	* 1.7978	* 1.0931	
	* 1.2689	* 1.5530	* 1.2493	* 1.6051	* 1.5157	* 1.2858	* 1.9020	
13	* 1.5043	* 1.5244	* 1.5667	* 1.8478	* 1.7978	* 1.1026	* 0.5734	
	* 1.4695	* 1.4585	* 1.4242	* 1.2444	* 1.2858	* 1.8998	* 3.5508	
14	* 1.8044	* 1.8116	* 1.8224	* 1.7960	* 1.0931	* 0.5732		
	* 1.2612	* 1.2590	* 1.2544	* 1.2780	* 1.9020	* 3.5512		
15	* 0.8833	* 0.8834	* 0.8533	* 0.7485	* F-SUB-Q			
	* 2.3183	* 2.3118	* 2.3894	* 2.7381	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7513	1.3516	1.2323	1.3614	1.8090	1.5141	1.8247	0.8845
	1.2756	1.6083	1.7519	1.5807	1.2179	1.4146	1.2097	2.2368
9	1.3516	1.7254	1.4585	1.7918	1.4412	1.5349	1.8327	0.8853
	1.6083	1.2853	1.4812	1.2298	1.4951	1.4040	1.2075	2.2329
10	1.2323	1.4590	1.2217	1.3676	1.8537	1.5801	1.8447	0.8538
	1.7519	1.4807	1.7684	1.5838	1.1994	1.3700	1.2028	2.3064
11	1.3614	1.7919	1.3680	1.8506	1.4098	1.8697	1.8201	0.7478
	1.5807	1.2297	1.5835	1.2021	1.5460	1.1942	1.2242	2.6467
12	1.8090	1.4411	1.8538	1.4099	1.5166	1.8201	1.0978	
	1.2179	1.4952	1.1993	1.5459	1.4609	1.2340	1.8346	
13	1.5141	1.5351	1.5803	1.8698	1.8201	1.1061	0.5720	
	1.4146	1.4038	1.3698	1.1941	1.2340	1.8358	3.4345	
14	1.8247	1.8328	1.8448	1.8202	1.0977	0.5718		
	1.2097	1.2074	1.2027	1.2241	1.8346	3.4350		
15	0.8845	0.8846	0.8547	0.7484	F-SUB-Q			
	2.2368	2.2338	2.3056	2.6456	M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7603	1.3561	1.2387	1.3657	1.8188	1.5208	1.8372	0.8883
	1.2303	1.5543	1.6908	1.5286	1.1746	1.3654	1.1644	2.1596
9	1.3562	1.7339	1.4640	1.8015	1.4463	1.5425	1.8458	0.8902
	1.5543	1.2399	1.4314	1.1861	1.4450	1.3541	1.1615	2.1500
10	1.2387	1.4645	1.2243	1.3726	1.8658	1.5891	1.8588	0.8594
	1.6908	1.4308	1.7114	1.5297	1.1542	1.3193	1.1562	2.2210
11	1.3657	1.8016	1.3729	1.8624	1.4161	1.8835	1.8350	0.7533
	1.5286	1.1860	1.5294	1.1569	1.4909	1.1476	1.1753	2.5451
12	1.8188	1.4462	1.8659	1.4162	1.5247	1.8341	1.1066	
	1.1746	1.4451	1.1541	1.4908	1.4065	1.1848	1.7615	
13	1.5208	1.5426	1.5893	1.8835	1.8341	1.1135	0.5743	
	1.3654	1.3540	1.3191	1.1476	1.1848	1.7644	3.3102	
14	1.8372	1.8459	1.8589	1.8351	1.1065	0.5741		
	1.1644	1.1615	1.1561	1.1752	1.7615	3.3106		
15	0.8883	0.8898	0.8602	0.7539	F-SUB-Q			
	2.1596	2.1505	2.2202	2.5440	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7560	* 1.3565	* 1.2478	* 1.3664	* 1.8158	* 1.5216	* 1.8357	* 0.8951
	* 1.2948	* 1.6325	* 1.7661	* 1.6074	* 1.2373	* 1.4347	* 1.2246	* 2.2537
9	* 1.3565	* 1.7295	* 1.4632	* 1.7983	* 1.4469	* 1.5438	* 1.8448	* 0.8993
	* 1.6325	* 1.3059	* 1.5064	* 1.2494	* 1.5193	* 1.4219	* 1.2208	* 2.2379
10	* 1.2478	* 1.4637	* 1.2350	* 1.3735	* 1.8641	* 1.5911	* 1.8585	* 0.8708
	* 1.7661	* 1.5058	* 1.7885	* 1.6067	* 1.2131	* 1.3836	* 1.2143	* 2.3035
11	* 1.3664	* 1.7984	* 1.3738	* 1.8605	* 1.4183	* 1.8830	* 1.8353	* 0.7643
	* 1.6074	* 1.2494	* 1.6064	* 1.2161	* 1.5633	* 1.2045	* 1.2329	* 2.6349
12	* 1.8158	* 1.4468	* 1.8642	* 1.4183	* 1.5255	* 1.8338	* 1.1210	*
	* 1.2373	* 1.5194	* 1.2131	* 1.5632	* 1.4737	* 1.2417	* 1.8241	*
13	* 1.5216	* 1.5440	* 1.5913	* 1.8831	* 1.8338	* 1.1252	* 0.5804	*
	* 1.4347	* 1.4217	* 1.3834	* 1.2044	* 1.2417	* 1.8302	* 3.4361	*
14	* 1.8357	* 1.8449	* 1.8587	* 1.8355	* 1.1209	* 0.5802	*	*
	* 1.2246	* 1.2208	* 1.2142	* 1.2328	* 1.8241	* 3.4366	*	*
15	* 0.8951	* 0.8988	* 0.8719	* 0.7649	* F-SUB-Q			
	* 2.2537	* 2.2383	* 2.3021	* 2.6338	* M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7926	* 1.3712	* 1.2479	* 1.3804	* 1.8536	* 1.5422	* 1.8776	* 0.8919
	* 1.2283	* 1.5668	* 1.7176	* 1.5484	* 1.1793	* 1.3789	* 1.1662	* 2.2058
9	* 1.3712	* 1.7651	* 1.4826	* 1.8357	* 1.4630	* 1.5653	* 1.8875	* 0.8943
	* 1.5668	* 1.2420	* 1.4459	* 1.1906	* 1.4624	* 1.3655	* 1.1618	* 2.1963
10	* 1.2479	* 1.4832	* 1.2337	* 1.3877	* 1.9041	* 1.6158	* 1.9023	* 0.8633
	* 1.7176	* 1.4453	* 1.7383	* 1.5466	* 1.1547	* 1.3256	* 1.1547	* 2.2654
11	* 1.3804	* 1.8358	* 1.3881	* 1.9000	* 1.4336	* 1.9267	* 1.8795	* 0.7548
	* 1.5484	* 1.1905	* 1.5463	* 1.1573	* 1.5036	* 1.1442	* 1.1709	* 2.6007
12	* 1.8536	* 1.4629	* 1.9042	* 1.4337	* 1.5488	* 1.8763	* 1.1161	*
	* 1.1793	* 1.4625	* 1.1546	* 1.5035	* 1.4081	* 1.1789	* 1.7818	*
13	* 1.5422	* 1.5655	* 1.6160	* 1.9268	* 1.8763	* 1.1220	* 0.5726	*
	* 1.3789	* 1.3654	* 1.3255	* 1.1442	* 1.1789	* 1.7829	* 3.3940	*
14	* 1.8776	* 1.8876	* 1.9025	* 1.8796	* 1.1160	* 0.5724	*	*
	* 1.1662	* 1.1617	* 1.1547	* 1.1708	* 1.7818	* 3.3945	*	*
15	* 0.8919	* 0.8936	* 0.8642	* 0.7554	* F-SUB-Q			
	* 2.2058	* 2.1973	* 2.2646	* 2.5995	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7959	1.3717	1.2478	1.3809	1.8591	1.5452	1.8847	0.8897
	1.1806	1.5117	1.6633	1.4987	1.1378	1.3321	1.1238	2.1415
9	1.3717	1.7687	1.4846	1.8405	1.4642	1.5687	1.8949	0.8925
	1.5118	1.1969	1.3976	1.1489	1.4145	1.3183	1.1190	2.1307
10	1.2478	1.4852	1.2324	1.3874	1.9085	1.6194	1.9101	0.8616
	1.6633	1.3970	1.6844	1.4962	1.1130	1.2783	1.1116	2.1971
11	1.3809	1.8406	1.3878	1.9051	1.4340	1.9331	1.8860	0.7522
	1.4987	1.1489	1.4958	1.1148	1.4524	1.1009	1.1267	2.5245
12	1.8591	1.4641	1.9086	1.4340	1.5515	1.8828	1.1151	
	1.1378	1.4147	1.1129	1.4523	1.3529	1.1322	1.7218	
13	1.5452	1.5689	1.6197	1.9332	1.8828	1.1214	0.5694	
	1.3321	1.3181	1.2782	1.1008	1.1323	1.7192	3.2961	
14	1.8847	1.8950	1.9102	1.8862	1.1151	0.5693		
	1.1238	1.1190	1.1116	1.1266	1.7218	3.2967		
15	0.8897	0.8917	0.8625	0.7528	F-SUB-Q			
	2.1415	2.1317	2.1963	2.5233	M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7508	1.3496	1.2412	1.3596	1.8158	1.5209	1.8397	0.8843
	1.1749	1.4923	1.6273	1.4812	1.1328	1.3163	1.1190	2.0968
9	1.3496	1.7260	1.4601	1.7960	1.4414	1.5445	1.8493	0.8889
	1.4923	1.1910	1.3824	1.1447	1.3979	1.3018	1.1140	2.0807
10	1.2412	1.4607	1.2263	1.3641	1.8600	1.5911	1.8646	0.8621
	1.6273	1.3818	1.6493	1.4792	1.1090	1.2636	1.1059	2.1359
11	1.3596	1.7962	1.3645	1.8580	1.4100	1.8829	1.8374	0.7532
	1.4812	1.1447	1.4788	1.1099	1.4347	1.0967	1.1222	2.4510
12	1.8158	1.4413	1.8601	1.4100	1.5239	1.8360	1.1130	
	1.1328	1.3980	1.1089	1.4346	1.3356	1.1253	1.6743	
13	1.5209	1.5447	1.5913	1.8830	1.8360	1.1190	0.5690	
	1.3163	1.3016	1.2635	1.0966	1.1253	1.6709	3.2042	
14	1.8397	1.8494	1.8648	1.8375	1.1129	0.5688		
	1.1190	1.1139	1.1058	1.1221	1.6743	3.2047		
15	0.8843	0.8884	0.8633	0.7539	F-SUB-Q			
	2.0968	2.0811	2.1343	2.4498	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7136	1.3210	1.2039	1.3303	1.7800	1.4925	1.8019	0.8529
	1.1716	1.4891	1.6406	1.4800	1.1290	1.3109	1.1156	2.1257
9	1.3210	1.6917	1.4341	1.7599	1.4119	1.5164	1.8110	0.8555
	1.4891	1.1864	1.3759	1.1413	1.3951	1.2953	1.1105	2.1141
10	1.2039	1.4348	1.1875	1.3327	1.8190	1.5599	1.8257	0.8266
	1.6406	1.3752	1.6635	1.4792	1.1069	1.2584	1.1023	2.1775
11	1.3303	1.7600	1.3331	1.8182	1.3764	1.8390	1.7942	0.7185
	1.4800	1.1412	1.4789	1.1069	1.4349	1.0952	1.1209	2.5110
12	1.7800	1.4118	1.8192	1.3765	1.4950	1.7968	1.0681	
	1.1290	1.3952	1.1068	1.4348	1.3278	1.1209	1.7026	
13	1.4925	1.5166	1.5601	1.8391	1.7968	1.0806	0.5446	
	1.3109	1.2951	1.2582	1.0951	1.1209	1.6880	3.2699	
14	1.8019	1.8112	1.8259	1.7944	1.0680	0.5444		
	1.1156	1.1105	1.1022	1.1208	1.7026	3.2705		
15	0.8529	0.8548	0.8275	0.7191	F-SUB-Q			
	2.1257	2.1151	2.1767	2.5097	M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5672	1.2294	1.1182	1.2368	1.6305	1.3870	1.6452	0.7924
	1.2564	1.5704	1.7344	1.5634	1.2092	1.3848	1.1986	2.2479
9	1.2294	1.5500	1.3348	1.6119	1.3137	1.4091	1.6524	0.7941
	1.5704	1.2700	1.4515	1.2226	1.4721	1.3678	1.1937	2.2368
10	1.1182	1.3354	1.1076	1.2385	1.6627	1.4468	1.6646	0.7669
	1.7344	1.4508	1.7515	1.5621	1.1875	1.3307	1.1852	2.3052
11	1.2368	1.6120	1.2389	1.6627	1.2777	1.6764	1.6309	0.6619
	1.5634	1.2225	1.5617	1.1870	1.5167	1.1779	1.2086	2.6770
12	1.6305	1.3136	1.6628	1.2777	1.3877	1.6396	0.9881	
	1.2092	1.4723	1.1875	1.5166	1.4026	1.2035	1.8053	
13	1.3870	1.4093	1.4470	1.6765	1.6395	1.0039	0.5046	
	1.3848	1.3677	1.3306	1.1779	1.2035	1.7822	3.4661	
14	1.6452	1.6525	1.6648	1.6310	0.9880	0.5045		
	1.1986	1.1936	1.1851	1.2085	1.8054	3.4667		
15	0.7924	0.7935	0.7677	0.6625	F-SUB-Q			
	2.2479	2.2378	2.3043	2.6756	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 250 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2984	1.0109	0.9205	1.0128	1.3389	1.1301	1.3442	0.6510
	1.4936	1.8822	2.0776	1.8820	1.4505	1.6748	1.4453	2.6997
9	1.0109	1.2794	1.0957	1.3252	1.0794	1.1449	1.3487	0.6574
	1.8822	1.5158	1.7426	1.4649	1.7660	1.6586	1.4407	2.6661
10	0.9205	1.0962	0.9085	1.0168	1.3689	1.1746	1.3520	0.6309
	2.0776	1.7418	2.1052	1.8754	1.4201	1.6139	1.4372	2.7639
11	1.0128	1.3252	1.0171	1.3720	1.0485	1.3746	1.3174	0.5420
	1.8820	1.4648	1.8750	1.4168	1.8208	1.4141	1.4735	3.2253
12	1.3389	1.0793	1.3690	1.0485	1.1448	1.3304	0.8085	
	1.4505	1.7661	1.4201	1.8207	1.6747	1.4605	2.1742	
13	1.1301	1.1450	1.1747	1.3746	1.3304	0.8257	0.4137	
	1.6748	1.6584	1.6138	1.4141	1.4605	2.1349	4.1733	
14	1.3442	1.3487	1.3521	1.3175	0.8084	0.4136		
	1.4453	1.4406	1.4371	1.4734	2.1743	4.1739		
15	0.6510	0.6569	0.6315	0.5425	F-SUB-Q			
	2.6997	2.6671	2.7632	3.2236	M-SUB-Q			

AT 100% POWER, 250 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.5346	0.4504	0.4215	0.4607	0.5501	0.4701	0.5196	0.2802
	3.5892	4.1796	4.4903	4.0933	3.4933	3.9808	3.6982	6.2139
9	0.4504	0.5217	0.4588	0.5415	0.4798	0.4753	0.5203	0.2820
	4.1796	3.6785	4.1166	3.5473	3.9291	3.9496	3.6941	6.1572
10	0.4215	0.4590	0.4167	0.4625	0.5585	0.4857	0.5199	0.2740
	4.4903	4.1149	4.5427	4.0784	3.4433	3.8579	3.6963	6.3064
11	0.4607	0.5416	0.4626	0.5441	0.4751	0.5560	0.5015	0.2398
	4.0933	3.5471	4.0778	3.5327	3.9743	3.4582	3.8300	7.2270
12	0.5501	0.4798	0.5585	0.4751	0.4708	0.5123	0.3450	
	3.4933	3.9292	3.4431	3.9742	4.0256	3.7509	5.0456	
13	0.4701	0.4753	0.4857	0.5560	0.5123	0.3526	0.1872	
	3.9808	3.9493	3.8576	3.4581	3.7510	4.9492	9.1452	
14	0.5196	0.5203	0.5200	0.5016	0.3450	0.1871		
	3.6982	3.6939	3.6960	3.8298	5.0456	9.1460		
15	0.2802	0.2819	0.2742	0.2399	F-SUB-Q			
	6.2139	6.1577	6.3069	7.2247	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.5136	0.5113	0.5112	0.5421	0.6182	0.5452	0.5712	0.3374
	3.0393	3.4079	3.6436	3.3246	3.0198	3.2281	3.2260	4.7795
9	0.5113	0.5870	0.5410	0.6134	0.5620	0.5470	0.5705	0.3376
	3.4079	3.2092	3.4193	3.0742	3.1964	3.2532	3.2435	4.8445
10	0.5112	0.5411	0.5074	0.5385	0.6147	0.5471	0.5647	0.3252
	3.6436	3.4187	3.6610	3.4241	3.1221	3.3238	3.3482	4.9922
11	0.5421	0.6134	0.5385	0.5981	0.5357	0.5950	0.5378	0.2897
	3.3246	3.0740	3.4238	3.1836	3.3991	3.1946	3.5742	5.7798
12	0.6182	0.5620	0.6147	0.5357	0.4779	0.5295	0.3846	
	3.0198	3.1962	3.1220	3.3990	3.3066	3.3509	4.3374	
13	0.5452	0.5470	0.5471	0.5950	0.5295	0.3852	0.2366	
	3.2281	3.2532	3.3236	3.1945	3.3510	4.0278	6.7099	
14	0.5712	0.5705	0.5647	0.5379	0.3846	0.2366		
	3.2260	3.2434	3.3479	3.5740	4.3367	6.7100		
15	0.3374	0.3375	0.3255	0.2899	F-SUB-Q			
	4.7795	4.8420	4.9919	5.7818	M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1758	1.0113	0.9712	1.0347	1.2640	1.1136	1.2353	0.7005
	1.5468	1.7913	1.9635	1.7824	1.5130	1.6135	1.5275	2.3597
9	1.0113	1.2067	1.1069	1.2546	1.0908	1.1211	1.2343	0.7015
	1.7913	1.5878	1.7126	1.5373	1.6856	1.6206	1.5347	2.3891
10	0.9713	1.1070	0.9636	1.0293	1.2586	1.1283	1.2262	0.6690
	1.9635	1.7123	1.9724	1.8325	1.5573	1.6535	1.5762	2.4850
11	1.0347	1.2547	1.0294	1.2702	1.0350	1.2416	1.1842	0.5891
	1.7825	1.5373	1.8324	1.5276	1.7947	1.5594	1.6446	2.9076
12	1.2640	1.0908	1.2587	1.0351	1.0627	1.1896	0.8060	
	1.5130	1.6856	1.5573	1.7946	1.6362	1.5664	2.1111	
13	1.1136	1.1212	1.1284	1.2416	1.1896	0.8290	0.4796	
	1.6135	1.6205	1.6534	1.5594	1.5664	1.9884	3.3928	
14	1.2353	1.2343	1.2263	1.1843	0.8060	0.4795		
	1.5275	1.5346	1.5761	1.6445	2.1107	3.3930		
15	0.7005	0.7013	0.6696	0.5895	F-SUB-Q			
	2.3597	2.3881	2.4851	2.9084	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4408	1.2047	1.1331	1.2166	1.4918	1.3143	1.4670	0.8354
	1.3447	1.5562	1.7054	1.5370	1.2987	1.3845	1.3016	2.0049
9	1.2047	1.4347	1.2914	1.4798	1.2771	1.3238	1.4660	0.8343
	1.5562	1.3692	1.4873	1.3206	1.4591	1.3916	1.3075	2.0302
10	1.1331	1.2915	1.1283	1.2096	1.4935	1.3289	1.4602	0.8027
	1.7054	1.4871	1.7093	1.5813	1.3298	1.4130	1.3399	2.0978
11	1.2166	1.4799	1.2098	1.5015	1.2258	1.4819	1.4205	0.7106
	1.5370	1.3206	1.5811	1.3153	1.5422	1.3276	1.3876	2.4413
12	1.4918	1.2771	1.4936	1.2259	1.2877	1.4374	0.9770	
	1.2987	1.4590	1.3298	1.5421	1.4338	1.3370	1.7714	
13	1.3143	1.3239	1.3290	1.4820	1.4374	1.0010	0.5777	
	1.3845	1.3916	1.4129	1.3276	1.3370	1.7129	2.8765	
14	1.4670	1.4661	1.4603	1.4207	0.9770	0.5776		
	1.3016	1.3075	1.3398	1.3875	1.7711	2.8768		
15	0.8354	0.8341	0.8037	0.7111	F-SUB-Q			
	2.0049	2.0293	2.0975	2.4419	M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5975	1.2983	1.2097	1.3064	1.6427	1.4190	1.6278	0.8884
	1.2397	1.4741	1.6195	1.4479	1.1921	1.2952	1.1847	1.9055
9	1.2983	1.5843	1.3894	1.6301	1.3718	1.4316	1.6273	0.8849
	1.4741	1.2623	1.3976	1.2121	1.3740	1.3021	1.1897	1.9348
10	1.2097	1.3896	1.2066	1.3024	1.6556	1.4454	1.6257	0.8476
	1.6195	1.3975	1.6193	1.4876	1.2155	1.3163	1.2152	2.0077
11	1.3064	1.6301	1.3026	1.6636	1.3257	1.6509	1.5880	0.7518
	1.4479	1.2121	1.4874	1.2051	1.4486	1.2087	1.2570	2.3314
12	1.6427	1.3718	1.6556	1.3257	1.4030	1.6065	1.0450	
	1.1921	1.3739	1.2155	1.4486	1.3444	1.2194	1.6829	
13	1.4190	1.4317	1.4456	1.6510	1.6065	1.0694	0.6085	
	1.2952	1.3021	1.3161	1.2087	1.2194	1.6391	2.7838	
14	1.6279	1.6274	1.6258	1.5881	1.0450	0.6084		
	1.1847	1.1896	1.2151	1.2569	1.6826	2.7840		
15	0.8884	0.8847	0.8486	0.7524	F-SUB-Q			
	1.9055	1.9340	2.0076	2.3320	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 20 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6440	1.3198	1.2233	1.3263	1.6857	1.4447	1.6783	0.9056
	1.2271	1.4759	1.6148	1.4423	1.1749	1.2849	1.1610	1.8906
9	1.3198	1.6265	1.4115	1.6731	1.3935	1.4585	1.6782	0.9043
	1.4759	1.2509	1.3921	1.1945	1.3676	1.2932	1.1654	1.9147
10	1.2233	1.4116	1.2221	1.3273	1.7077	1.4802	1.6792	0.8661
	1.6148	1.3920	1.6195	1.4781	1.1959	1.3018	1.1878	1.9865
11	1.3263	1.6732	1.3275	1.7146	1.3541	1.7080	1.6477	0.7702
	1.4423	1.1945	1.4779	1.1873	1.4415	1.1862	1.2290	2.2990
12	1.6857	1.3935	1.7078	1.3542	1.4358	1.6622	1.0747	
	1.1749	1.3676	1.1959	1.4414	1.3377	1.1991	1.6636	
13	1.4447	1.4586	1.4804	1.7081	1.6622	1.0942	0.6190	
	1.2849	1.2932	1.3016	1.1862	1.1991	1.6323	2.7894	
14	1.6783	1.6783	1.6794	1.6478	1.0747	0.6188		
	1.1610	1.1654	1.1877	1.2290	1.6633	2.7896		
15	0.9056	0.9040	0.8670	0.7707	F-SUB-Q			
	1.8906	1.9140	1.9864	2.2996	M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 19 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6473	1.3159	1.2204	1.3213	1.6862	1.4421	1.6848	0.9078
	1.2447	1.5038	1.6340	1.4671	1.1901	1.3038	1.1708	1.9112
9	1.3159	1.6276	1.4056	1.6743	1.3888	1.4558	1.6858	0.9084
	1.5038	1.2687	1.4148	1.2092	1.3904	1.3107	1.1747	1.9313
10	1.2204	1.4058	1.2149	1.3255	1.7148	1.4824	1.6881	0.8734
	1.6340	1.4147	1.6491	1.4990	1.2033	1.3156	1.1942	1.9941
11	1.3213	1.6743	1.3257	1.7204	1.3548	1.7184	1.6608	0.7774
	1.4671	1.2091	1.4988	1.1980	1.4592	1.1933	1.2326	2.3014
12	1.6862	1.3887	1.7149	1.3549	1.4372	1.6725	1.0848	
	1.1901	1.3904	1.2033	1.4592	1.3591	1.2118	1.6730	
13	1.4421	1.4559	1.4826	1.7185	1.6725	1.1003	0.6210	
	1.3038	1.3106	1.3155	1.1933	1.2118	1.6549	2.8338	
14	1.6848	1.6859	1.6882	1.6609	1.0848	0.6208		
	1.1708	1.1747	1.1941	1.2325	1.6727	2.8340		
15	0.9078	0.9081	0.8745	0.7779	F-SUB-Q			
	1.9112	1.9306	1.9937	2.3020	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6549	* 1.3115	* 1.2095	* 1.3151	* 1.6908	* 1.4394	* 1.6955	* 0.9001
	* 1.2590	* 1.5312	* 1.6711	* 1.4975	* 1.2056	* 1.3269	* 1.1812	* 1.9586
9	* 1.3115	* 1.6335	* 1.4017	* 1.6796	* 1.3832	* 1.4542	* 1.6975	* 0.9001
	* 1.5312	* 1.2802	* 1.4357	* 1.2238	* 1.4180	* 1.3308	* 1.1844	* 1.9802
10	* 1.2095	* 1.4019	* 1.2078	* 1.3212	* 1.7248	* 1.4844	* 1.7006	* 0.8627
	* 1.6711	* 1.4354	* 1.6733	* 1.5154	* 1.2032	* 1.3241	* 1.2002	* 2.0477
11	* 1.3151	* 1.6797	* 1.3214	* 1.7289	* 1.3523	* 1.7315	* 1.6763	* 0.7686
	* 1.4975	* 1.2237	* 1.5152	* 1.2023	* 1.4747	* 1.1945	* 1.2287	* 2.3515
12	* 1.6908	* 1.3832	* 1.7248	* 1.3524	* 1.4387	* 1.6857	* 1.0782	*
	* 1.2056	* 1.4180	* 1.2032	* 1.4747	* 1.3789	* 1.2206	* 1.7037	*
13	* 1.4394	* 1.4543	* 1.4846	* 1.7315	* 1.6857	* 1.0925	* 0.6124	*
	* 1.3269	* 1.3307	* 1.3239	* 1.1945	* 1.2206	* 1.6930	* 2.9196	*
14	* 1.6955	* 1.6976	* 1.7007	* 1.6764	* 1.0782	* 0.6123	*	*
	* 1.1812	* 1.1844	* 1.2001	* 1.2287	* 1.7034	* 2.9199	*	*
15	* 0.9001	* 0.8998	* 0.8636	* 0.7691	* F-SUB-Q			
	* 1.9586	* 1.9795	* 2.0478	* 2.3521	* M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6509	* 1.3027	* 1.1991	* 1.3045	* 1.6840	* 1.4305	* 1.6928	* 0.8924
	* 1.2769	* 1.5605	* 1.7071	* 1.5387	* 1.2339	* 1.3613	* 1.2057	* 2.0144
9	* 1.3027	* 1.6282	* 1.3920	* 1.6735	* 1.3726	* 1.4458	* 1.6956	* 0.8928
	* 1.5605	* 1.3009	* 1.4630	* 1.2508	* 1.4563	* 1.3620	* 1.2081	* 2.0352
10	* 1.1991	* 1.3923	* 1.1965	* 1.3118	* 1.7213	* 1.4782	* 1.6993	* 0.8559
	* 1.7071	* 1.4628	* 1.7121	* 1.5497	* 1.2232	* 1.3469	* 1.2193	* 2.0999
11	* 1.3045	* 1.6737	* 1.3120	* 1.7246	* 1.3441	* 1.7302	* 1.6775	* 0.7623
	* 1.5387	* 1.2507	* 1.5495	* 1.2218	* 1.5038	* 1.2109	* 1.2442	* 2.3953
12	* 1.6840	* 1.3725	* 1.7213	* 1.3441	* 1.4323	* 1.6851	* 1.0726	*
	* 1.2339	* 1.4563	* 1.2232	* 1.5037	* 1.4003	* 1.2340	* 1.7317	*
13	* 1.4305	* 1.4459	* 1.4784	* 1.7302	* 1.6851	* 1.0850	* 0.6056	*
	* 1.3613	* 1.3619	* 1.3468	* 1.2109	* 1.2340	* 1.7259	* 2.9815	*
14	* 1.6928	* 1.6956	* 1.6994	* 1.6776	* 1.0726	* 0.6054	*	*
	* 1.2057	* 1.2081	* 1.2192	* 1.2441	* 1.7315	* 2.9818	*	*
15	* 0.8924	* 0.8924	* 0.8568	* 0.7628	* F-SUB-Q			
	* 2.0144	* 2.0346	* 2.1000	* 2.3960	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6532	* 1.2971	* 1.1906	* 1.2971	* 1.6836	* 1.4250	* 1.6955	* 0.8843
	* 1.3092	* 1.6068	* 1.7538	* 1.5835	* 1.2634	* 1.3993	* 1.2322	* 2.0819
9	* 1.2971	* 1.6294	* 1.3868	* 1.6738	* 1.3655	* 1.4408	* 1.6988	* 0.8835
	* 1.6068	* 1.3316	* 1.4955	* 1.2787	* 1.4980	* 1.3964	* 1.2337	* 2.1057
10	* 1.1906	* 1.3871	* 1.1891	* 1.3053	* 1.7234	* 1.4751	* 1.7030	* 0.8476
	* 1.7538	* 1.4952	* 1.7529	* 1.5841	* 1.2428	* 1.3702	* 1.2398	* 2.1660
11	* 1.2971	* 1.6739	* 1.3055	* 1.7264	* 1.3382	* 1.7338	* 1.6830	* 0.7537
	* 1.5835	* 1.2787	* 1.5840	* 1.2480	* 1.5449	* 1.2351	* 1.2614	* 2.4624
12	* 1.6836	* 1.3655	* 1.7234	* 1.3382	* 1.4292	* 1.6893	* 1.0647	
	* 1.2634	* 1.4981	* 1.2427	* 1.5448	* 1.4371	* 1.2587	* 1.7827	
13	* 1.4250	* 1.4409	* 1.4753	* 1.7338	* 1.6893	* 1.0763	* 0.5980	
	* 1.3993	* 1.3963	* 1.3701	* 1.2351	* 1.2587	* 1.7793	* 3.0837	
14	* 1.6955	* 1.6989	* 1.7031	* 1.6830	* 1.0647	* 0.5978		
	* 1.2322	* 1.2337	* 1.2397	* 1.2613	* 1.7824	* 3.0841		
15	* 0.8843	* 0.8831	* 0.8485	* 0.7543	F-SUB-Q			
	* 2.0819	* 2.1050	* 2.1660	* 2.4630	M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6300	* 1.2827	* 1.1878	* 1.2814	* 1.6576	* 1.4072	* 1.6709	* 0.8827
	* 1.3692	* 1.6721	* 1.8026	* 1.6487	* 1.3203	* 1.4582	* 1.2862	* 2.1462
9	* 1.2827	* 1.6056	* 1.3689	* 1.6482	* 1.3485	* 1.4231	* 1.6743	* 0.8858
	* 1.6721	* 1.3868	* 1.5544	* 1.3345	* 1.5602	* 1.4518	* 1.2869	* 2.1605
10	* 1.1878	* 1.3692	* 1.1775	* 1.2901	* 1.6983	* 1.4572	* 1.6789	* 0.8557
	* 1.8026	* 1.5540	* 1.8157	* 1.6413	* 1.2902	* 1.4198	* 1.2887	* 2.2024
11	* 1.2814	* 1.6484	* 1.2903	* 1.7011	* 1.3232	* 1.7095	* 1.6605	* 0.7594
	* 1.6487	* 1.3344	* 1.6411	* 1.2932	* 1.5949	* 1.2781	* 1.3058	* 2.5023
12	* 1.6576	* 1.3485	* 1.6983	* 1.3232	* 1.4112	* 1.6656	* 1.0696	
	* 1.3203	* 1.5603	* 1.2902	* 1.5948	* 1.4974	* 1.3115	* 1.8142	
13	* 1.4072	* 1.4232	* 1.4573	* 1.7095	* 1.6656	* 1.0779	* 0.5999	
	* 1.4582	* 1.4517	* 1.4196	* 1.2781	* 1.3116	* 1.8309	* 3.1539	
14	* 1.6709	* 1.6744	* 1.6790	* 1.6605	* 1.0696	* 0.5998		
	* 1.2862	* 1.2869	* 1.2887	* 1.3058	* 1.8139	* 3.1543		
15	* 0.8827	* 0.8855	* 0.8568	* 0.7599	F-SUB-Q			
	* 2.1462	* 2.1598	* 2.2019	* 2.5030	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6519	1.2877	1.1791	1.2839	1.6764	1.4134	1.6931	0.8747
	1.3907	1.7152	1.8774	1.7022	1.3508	1.5021	1.3129	2.2399
9	1.2877	1.6261	1.3760	1.6677	1.3521	1.4298	1.6972	0.8759
	1.7152	1.4112	1.5981	1.3635	1.6097	1.4926	1.3120	2.2592
10	1.1791	1.3764	1.1743	1.2932	1.7196	1.4667	1.7022	0.8403
	1.8774	1.5977	1.8804	1.6907	1.3150	1.4553	1.3107	2.3150
11	1.2839	1.6679	1.2934	1.7224	1.3268	1.7325	1.6852	0.7467
	1.7022	1.3634	1.6905	1.3173	1.6394	1.2996	1.3258	2.6228
12	1.6764	1.3521	1.7197	1.3269	1.4205	1.6891	1.0592	
	1.3508	1.6097	1.3150	1.6394	1.5281	1.3285	1.8840	
13	1.4134	1.4299	1.4668	1.7325	1.6891	1.0681	0.5894	
	1.5021	1.4925	1.4551	1.2996	1.3285	1.8950	3.2910	
14	1.6931	1.6973	1.7022	1.6852	1.0591	0.5893		
	1.3129	1.3120	1.3107	1.3258	1.8838	3.2914		
15	0.8747	0.8755	0.8412	0.7472	F-SUB-Q			
	2.2399	2.2586	2.3152	2.6235	M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6567	1.2875	1.1781	1.2816	1.6782	1.4118	1.6965	0.8728
	1.4246	1.7490	1.9048	1.7394	1.3877	1.5634	1.3619	2.3326
9	1.2875	1.6299	1.3752	1.6701	1.3499	1.4286	1.7011	0.8745
	1.7490	1.4397	1.6274	1.3963	1.6511	1.5515	1.3593	2.3509
10	1.1781	1.3756	1.1713	1.2913	1.7230	1.4668	1.7065	0.8394
	1.9048	1.6269	1.9184	1.7377	1.3634	1.5092	1.3563	2.4052
11	1.2816	1.6702	1.2916	1.7256	1.3255	1.7370	1.6908	0.7457
	1.7394	1.3963	1.7375	1.3631	1.7018	1.3455	1.3709	2.7190
12	1.6782	1.3498	1.7230	1.3255	1.4204	1.6938	1.0598	
	1.3877	1.6512	1.3634	1.7018	1.5839	1.3730	1.9515	
13	1.4118	1.4287	1.4669	1.7370	1.6938	1.0675	0.5872	
	1.5634	1.5514	1.5091	1.3455	1.3730	1.9632	3.4182	
14	1.6965	1.7011	1.7066	1.6909	1.0597	0.5870		
	1.3619	1.3593	1.3562	1.3709	1.9513	3.4186		
15	0.8728	0.8741	0.8402	0.7462	F-SUB-Q			
	2.3326	2.3503	2.4054	2.7197	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6474	1.2829	1.1828	1.2753	1.6658	1.4041	1.6854	0.8756
	1.4003	1.7148	1.8512	1.7047	1.3638	1.5357	1.3498	2.2841
9	1.2829	1.6198	1.3678	1.6582	1.3427	1.4212	1.6901	0.8796
	1.7148	1.4154	1.5968	1.3722	1.6189	1.5272	1.3497	2.2962
10	1.1828	1.3682	1.1709	1.2855	1.7116	1.4594	1.6962	0.8503
	1.8512	1.5963	1.8751	1.7031	1.3401	1.4921	1.3488	2.3372
11	1.2753	1.6583	1.2858	1.7142	1.3197	1.7263	1.6818	0.7540
	1.7047	1.3722	1.7028	1.3396	1.6680	1.3343	1.3675	2.6558
12	1.6658	1.3426	1.7116	1.3197	1.4128	1.6835	1.0691	
	1.3638	1.6190	1.3401	1.6679	1.5813	1.3766	1.9172	
13	1.4041	1.4213	1.4596	1.7263	1.6835	1.0738	0.5913	
	1.5357	1.5271	1.4920	1.3343	1.3766	1.9419	3.3740	
14	1.6854	1.6901	1.6962	1.6818	1.0690	0.5911		
	1.3498	1.3497	1.3487	1.3674	1.9170	3.3744		
15	0.8756	0.8792	0.8514	0.7544	F-SUB-Q			
	2.2841	2.2955	2.3366	2.6566	M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6776	1.2948	1.1803	1.2846	1.6927	1.4172	1.7159	0.8720
	1.3485	1.6663	1.8202	1.6606	1.3165	1.4921	1.2998	2.2494
9	1.2948	1.6484	1.3817	1.6858	1.3530	1.4350	1.7213	0.8740
	1.6663	1.3640	1.5508	1.3240	1.5760	1.4825	1.2987	2.2661
10	1.1803	1.3822	1.1715	1.2954	1.7411	1.4762	1.7289	0.8397
	1.8202	1.5503	1.8351	1.6564	1.2902	1.4445	1.2969	2.3197
11	1.2846	1.6859	1.2957	1.7437	1.3303	1.7578	1.7149	0.7450
	1.6606	1.3240	1.6561	1.2898	1.6202	1.2825	1.3123	2.6320
12	1.6927	1.3529	1.7412	1.3303	1.4291	1.7155	1.0642	
	1.3165	1.5761	1.2902	1.6201	1.5292	1.3218	1.8837	
13	1.4172	1.4351	1.4764	1.7578	1.7155	1.0695	0.5839	
	1.4921	1.4824	1.4444	1.2825	1.3218	1.9065	3.3396	
14	1.7159	1.7214	1.7290	1.7150	1.0641	0.5837		
	1.2998	1.2987	1.2968	1.3123	1.8836	3.3400		
15	0.8720	0.8736	0.8405	0.7455	F-SUB-Q			
	2.2494	2.2655	2.3199	2.6326	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 10 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6971	* 1.3042	* 1.1846	* 1.2918	* 1.7090	* 1.4264	* 1.7348	* 0.8738 *
	* 1.3026	* 1.6119	* 1.7636	* 1.6080	* 1.2726	* 1.4474	* 1.2572	* 2.1852 *
9	* 1.3042	* 1.6664	* 1.3913	* 1.7026	* 1.3607	* 1.4448	* 1.7407	* 0.8735 *
	* 1.6119	* 1.3158	* 1.4991	* 1.2790	* 1.5274	* 1.4382	* 1.2561	* 2.2078 *
10	* 1.1846	* 1.3917	* 1.1767	* 1.3032	* 1.7594	* 1.4881	* 1.7498	* 0.8413 *
	* 1.7636	* 1.4986	* 1.7760	* 1.6048	* 1.2483	* 1.4009	* 1.2543	* 2.2543 *
11	* 1.2918	* 1.7028	* 1.3035	* 1.7619	* 1.3387	* 1.7777	* 1.7365	* 0.7457 *
	* 1.6080	* 1.2789	* 1.6046	* 1.2474	* 1.5717	* 1.2410	* 1.2680	* 2.5587 *
12	* 1.7090	* 1.3606	* 1.7595	* 1.3387	* 1.4402	* 1.7356	* 1.0687	*
	* 1.2726	* 1.5275	* 1.2483	* 1.5716	* 1.4848	* 1.2790	* 1.8305	*
13	* 1.4264	* 1.4449	* 1.4882	* 1.7777	* 1.7356	* 1.0730	* 0.5829	*
	* 1.4474	* 1.4381	* 1.4008	* 1.2410	* 1.2790	* 1.8550	* 3.2483	*
14	* 1.7348	* 1.7407	* 1.7499	* 1.7365	* 1.0686	* 0.5828	*	*
	* 1.2572	* 1.2561	* 1.2542	* 1.2680	* 1.8304	* 3.2488	*	*
15	* 0.8738	* 0.8730	* 0.8421	* 0.7463	* F-SUB-Q			
	* 2.1852	* 2.2073	* 2.2545	* 2.5593	* M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 9 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7130	* 1.3137	* 1.1950	* 1.2995	* 1.7223	* 1.4353	* 1.7495	* 0.8798 *
	* 1.2544	* 1.5558	* 1.7001	* 1.5543	* 1.2273	* 1.3976	* 1.2107	* 2.1086 *
9	* 1.3137	* 1.6812	* 1.4008	* 1.7164	* 1.3688	* 1.4542	* 1.7557	* 0.8827 *
	* 1.5558	* 1.2677	* 1.4476	* 1.2330	* 1.4760	* 1.3879	* 1.2091	* 2.1222 *
10	* 1.1950	* 1.4013	* 1.1827	* 1.3112	* 1.7743	* 1.4985	* 1.7659	* 0.8489 *
	* 1.7001	* 1.4471	* 1.7178	* 1.5495	* 1.2016	* 1.3501	* 1.2067	* 2.1696 *
11	* 1.2995	* 1.7165	* 1.3115	* 1.7769	* 1.3473	* 1.7935	* 1.7530	* 0.7528 *
	* 1.5543	* 1.2330	* 1.5493	* 1.2007	* 1.5159	* 1.1934	* 1.2182	* 2.4601 *
12	* 1.7223	* 1.3687	* 1.7744	* 1.3473	* 1.4501	* 1.7513	* 1.0796	*
	* 1.2273	* 1.4761	* 1.2016	* 1.5159	* 1.4303	* 1.2287	* 1.7572	*
13	* 1.4353	* 1.4543	* 1.4986	* 1.7934	* 1.7512	* 1.0825	* 0.5869	*
	* 1.3976	* 1.3878	* 1.3500	* 1.1934	* 1.2287	* 1.7825	* 3.1281	*
14	* 1.7495	* 1.7558	* 1.7659	* 1.7530	* 1.0795	* 0.5867	*	*
	* 1.2107	* 1.2091	* 1.2066	* 1.2182	* 1.7571	* 3.1285	*	*
15	* 0.8798	* 0.8823	* 0.8497	* 0.7533	* F-SUB-Q			
	* 2.1086	* 2.1218	* 2.1699	* 2.4607	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7211	* 1.3224	* 1.2118	* 1.3069	* 1.7283	* 1.4425	* 1.7558	* 0.8912
	* 1.3155	* 1.6294	* 1.7696	* 1.6311	* 1.2901	* 1.4661	* 1.2714	* 2.1947
9	* 1.3224	* 1.6883	* 1.4080	* 1.7226	* 1.3762	* 1.4616	* 1.7622	* 0.8964
	* 1.6294	* 1.3307	* 1.5198	* 1.2959	* 1.5489	* 1.4553	* 1.2691	* 2.2032
10	* 1.2118	* 1.4085	* 1.1976	* 1.3190	* 1.7813	* 1.5075	* 1.7734	* 0.8675
	* 1.7696	* 1.5192	* 1.7935	* 1.6240	* 1.2607	* 1.4129	* 1.2656	* 2.2372
11	* 1.3069	* 1.7227	* 1.3193	* 1.7838	* 1.3555	* 1.8011	* 1.7611	* 0.7680
	* 1.6311	* 1.2959	* 1.6237	* 1.2598	* 1.5869	* 1.2506	* 1.2759	* 2.5393
12	* 1.7283	* 1.3761	* 1.7813	* 1.3555	* 1.4572	* 1.7583	* 1.0992	*
	* 1.2901	* 1.5490	* 1.2607	* 1.5868	* 1.4965	* 1.2859	* 1.8155	*
13	* 1.4425	* 1.4617	* 1.5076	* 1.8011	* 1.7583	* 1.0994	* 0.5965	*
	* 1.4661	* 1.4552	* 1.4129	* 1.2506	* 1.2859	* 1.8447	* 3.2369	*
14	* 1.7558	* 1.7622	* 1.7735	* 1.7611	* 1.0992	* 0.5963	*	*
	* 1.2714	* 1.2691	* 1.2655	* 1.2759	* 1.8153	* 3.2374	*	*
15	* 0.8912	* 0.8960	* 0.8687	* 0.7686	* F-SUB-Q			
	* 2.1947	* 2.2026	* 2.2366	* 2.5400	* M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7707	* 1.3471	* 1.2194	* 1.3293	* 1.7753	* 1.4704	* 1.8063	* 0.8944
	* 1.2444	* 1.5594	* 1.7186	* 1.5677	* 1.2275	* 1.4075	* 1.2092	* 2.1430
9	* 1.3471	* 1.7359	* 1.4365	* 1.7700	* 1.4006	* 1.4905	* 1.8134	* 0.8953
	* 1.5594	* 1.2624	* 1.4556	* 1.2323	* 1.4879	* 1.3960	* 1.2064	* 2.1627
10	* 1.2194	* 1.4370	* 1.2072	* 1.3419	* 1.8312	* 1.5390	* 1.8260	* 0.8628
	* 1.7186	* 1.4550	* 1.7360	* 1.5599	* 1.1980	* 1.3532	* 1.2019	* 2.2038
11	* 1.3293	* 1.7702	* 1.3422	* 1.8336	* 1.3794	* 1.8530	* 1.8138	* 0.7632
	* 1.5677	* 1.2322	* 1.5596	* 1.1969	* 1.5236	* 1.1874	* 1.2110	* 2.5022
12	* 1.7753	* 1.4005	* 1.8312	* 1.3794	* 1.4884	* 1.8100	* 1.1015	*
	* 1.2275	* 1.4880	* 1.1980	* 1.5236	* 1.4288	* 1.2201	* 1.7713	*
13	* 1.4704	* 1.4907	* 1.5390	* 1.8529	* 1.8099	* 1.1031	* 0.5926	*
	* 1.4075	* 1.3959	* 1.3531	* 1.1874	* 1.2201	* 1.7948	* 3.1844	*
14	* 1.8063	* 1.8134	* 1.8261	* 1.8138	* 1.1014	* 0.5924	*	*
	* 1.2092	* 1.2064	* 1.2018	* 1.2110	* 1.7712	* 3.1850	*	*
15	* 0.8944	* 0.8946	* 0.8637	* 0.7638	* F-SUB-Q			
	* 2.1430	* 2.1623	* 2.2040	* 2.5027	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7978	1.3638	1.2333	1.3448	1.8010	1.4888	1.8333	0.9027
	1.1830	1.4900	1.6492	1.5040	1.1738	1.3485	1.1552	2.0608
9	1.3638	1.7616	1.4548	1.7956	1.4174	1.5095	1.8407	0.9038
	1.4900	1.2042	1.3945	1.1781	1.4269	1.3367	1.1520	2.0790
10	1.2333	1.4554	1.2199	1.3574	1.8580	1.5594	1.8539	0.8713
	1.6492	1.3940	1.6669	1.4949	1.1435	1.2935	1.1463	2.1171
11	1.3448	1.7957	1.3577	1.8603	1.3956	1.8809	1.8416	0.7697
	1.5040	1.1780	1.4947	1.1422	1.4583	1.1318	1.1544	2.4066
12	1.8010	1.4172	1.8580	1.3956	1.5074	1.8371	1.1137	
	1.1738	1.4270	1.1434	1.4582	1.3607	1.1610	1.6952	
13	1.4888	1.5097	1.5595	1.8809	1.8370	1.1151	0.5965	
	1.3485	1.3366	1.2935	1.1318	1.1610	1.7156	3.0691	
14	1.8333	1.8407	1.8540	1.8417	1.1136	0.5963		
	1.1552	1.1520	1.1463	1.1543	1.6951	3.0696		
15	0.9027	0.9031	0.8721	0.7703	F-SUB-Q			
	2.0608	2.0791	2.1173	2.4070	M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7876	1.3653	1.2488	1.3466	1.7916	1.4897	1.8223	0.9127
	1.1568	1.4488	1.5888	1.4651	1.1502	1.3137	1.1323	1.9875
9	1.3653	1.7514	1.4547	1.7855	1.4189	1.5103	1.8292	0.9183
	1.4488	1.1789	1.3600	1.1546	1.3900	1.3019	1.1290	1.9945
10	1.2488	1.4553	1.2323	1.3581	1.8470	1.5595	1.8417	0.8908
	1.5888	1.3594	1.6119	1.4558	1.1195	1.2591	1.1229	2.0184
11	1.3466	1.7857	1.3584	1.8490	1.3964	1.8693	1.8288	0.7848
	1.4651	1.1545	1.4556	1.1183	1.4189	1.1075	1.1305	2.2994
12	1.7916	1.4188	1.8470	1.3964	1.5051	1.8250	1.1314	
	1.1502	1.3901	1.1195	1.4188	1.3241	1.1348	1.6231	
13	1.4897	1.5105	1.5595	1.8694	1.8250	1.1316	0.6064	
	1.3137	1.3018	1.2590	1.1075	1.1348	1.6429	2.9376	
14	1.8223	1.8292	1.8418	1.8288	1.1313	0.6062		
	1.1323	1.1290	1.1228	1.1305	1.6229	2.9381		
15	0.9127	0.9178	0.8921	0.7853	F-SUB-Q			
	1.9875	1.9941	2.0176	2.2999	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7885	1.3632	1.2337	1.3440	1.7959	1.4907	1.8253	0.8978
	1.1302	1.4199	1.5758	1.4383	1.1235	1.2854	1.1061	1.9793
9	1.3632	1.7546	1.4573	1.7881	1.4177	1.5117	1.8321	0.9002
	1.4199	1.1513	1.3298	1.1286	1.3628	1.2733	1.1027	1.9929
10	1.2337	1.4580	1.2176	1.3536	1.8484	1.5583	1.8426	0.8680
	1.5758	1.3291	1.5959	1.4300	1.0941	1.2325	1.0972	2.0283
11	1.3440	1.7883	1.3539	1.8508	1.3910	1.8696	1.8265	0.7629
	1.4383	1.1286	1.4298	1.0926	1.3933	1.0821	1.1062	2.3149
12	1.7959	1.4176	1.8484	1.3910	1.5054	1.8258	1.1081	
	1.1235	1.3629	1.0941	1.3933	1.2936	1.1082	1.6200	
13	1.4907	1.5118	1.5585	1.8696	1.8258	1.1136	0.5915	
	1.2854	1.2731	1.2325	1.0822	1.1082	1.6315	2.9459	
14	1.8253	1.8321	1.8427	1.8266	1.1080	0.5913		
	1.1061	1.1026	1.0971	1.1061	1.6198	2.9465		
15	0.8978	0.8997	0.8688	0.7635	F-SUB-Q			
	1.9793	1.9926	2.0284	2.3153	M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6797	1.2992	1.1756	1.2796	1.6905	1.4203	1.7131	0.8515
	1.1819	1.4642	1.6262	1.4856	1.1732	1.3259	1.1574	2.0516
9	1.2992	1.6512	1.3904	1.6818	1.3517	1.4395	1.7189	0.8528
	1.4642	1.2019	1.3704	1.1792	1.4054	1.3138	1.1539	2.0677
10	1.1756	1.3911	1.1619	1.2864	1.7344	1.4813	1.7263	0.8231
	1.6262	1.3698	1.6452	1.4790	1.1451	1.2736	1.1494	2.1023
11	1.2796	1.6818	1.2867	1.7390	1.3223	1.7513	1.7051	0.7193
	1.4856	1.1792	1.4788	1.1420	1.4401	1.1341	1.1628	2.4132
12	1.6905	1.3516	1.7344	1.3223	1.4312	1.7121	1.0476	
	1.1732	1.4055	1.1451	1.4401	1.3356	1.1595	1.6822	
13	1.4203	1.4397	1.4814	1.7513	1.7121	1.0582	0.5602	
	1.3259	1.3137	1.2736	1.1342	1.1595	1.6856	3.0571	
14	1.7131	1.7189	1.7264	1.7051	1.0475	0.5600		
	1.1574	1.1539	1.1493	1.1627	1.6821	3.0577		
15	0.8515	0.8522	0.8239	0.7198	F-SUB-Q			
	2.0516	2.0678	2.1025	2.4135	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 350 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3979	1.0979	1.0002	1.0800	1.4072	1.1942	1.4166	0.7151
	1.3986	1.7072	1.8848	1.7354	1.3883	1.5542	1.3777	2.4091
9	1.0979	1.3762	1.1790	1.4001	1.1449	1.2094	1.4209	0.7219
	1.7072	1.4200	1.5931	1.3951	1.6356	1.5406	1.3739	2.4084
10	1.0002	1.1795	0.9857	1.0862	1.4389	1.2415	1.4247	0.6932
	1.8848	1.5924	1.9120	1.7264	1.3592	1.4964	1.3704	2.4604
11	1.0800	1.4001	1.0864	1.4493	1.1154	1.4469	1.3992	0.6004
	1.7354	1.3951	1.7261	1.3493	1.6822	1.3513	1.3945	2.8503
12	1.4072	1.1448	1.4389	1.1154	1.2204	1.4135	0.8741	
	1.3883	1.6357	1.3591	1.6822	1.5425	1.3816	1.9855	
13	1.1942	1.2095	1.2416	1.4469	1.4134	0.8937	0.4707	
	1.5542	1.5405	1.4963	1.3513	1.3816	1.9653	3.5890	
14	1.4166	1.4209	1.4248	1.3992	0.8740	0.4705		
	1.3777	1.3738	1.3703	1.3945	1.9854	3.5896		
15	0.7151	0.7214	0.6941	0.6009	F-SUB-Q			
	2.4091	2.4084	2.4597	2.8507	M-SUB-Q			

AT 100% POWER, 350 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.6107	0.5170	0.4839	0.5196	0.6145	0.5281	0.5848	0.3239
	3.1601	3.5800	3.8479	3.5621	3.1388	3.4689	3.2949	5.2607
9	0.5170	0.5974	0.5238	0.6094	0.5390	0.5341	0.5856	0.3257
	3.5800	3.2304	3.5401	3.1652	3.4301	3.4420	3.2911	5.2802
10	0.4839	0.5240	0.4782	0.5218	0.6249	0.5452	0.5857	0.3165
	3.8479	3.5387	3.8934	3.5480	3.0890	3.3617	3.2907	5.3305
11	0.5196	0.6095	0.5219	0.6115	0.5345	0.6234	0.5687	0.2792
	3.5621	3.1650	3.5475	3.1559	3.4653	3.0954	3.3875	6.0659
12	0.6145	0.5390	0.6249	0.5345	0.5341	0.5812	0.3932	
	3.1388	3.4302	3.0889	3.4653	3.4776	3.3170	4.3619	
13	0.5281	0.5341	0.5452	0.6234	0.5811	0.4035	0.2233	
	3.4689	3.4418	3.3616	3.0954	3.3171	4.3003	7.4886	
14	0.5848	0.5856	0.5857	0.5687	0.3931	0.2233		
	3.2949	3.2911	3.2906	3.3874	4.3616	7.4894		
15	0.3239	0.3255	0.3167	0.2793	F-SUB-Q			
	5.2607	5.2787	5.3331	6.0679	M-SUB-Q			

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.5950	* 0.5975	* 0.5990	* 0.6284	* 0.7131	* 0.6325	* 0.6669	* 0.4065
	* 2.5945	* 2.8620	* 3.0499	* 2.8112	* 2.6372	* 2.7264	* 2.7885	* 3.8093
9	* 0.5975	* 0.6825	* 0.6317	* 0.7088	* 0.6498	* 0.6363	* 0.6664	* 0.4071
	* 2.8620	* 2.7802	* 2.8682	* 2.6780	* 2.7101	* 2.7449	* 2.8017	* 3.8735
10	* 0.5990	* 0.6318	* 0.5955	* 0.6253	* 0.7104	* 0.6355	* 0.6618	* 0.3923
	* 3.0499	* 2.8676	* 3.0612	* 2.8890	* 2.7192	* 2.7958	* 2.8803	* 3.9971
11	* 0.6284	* 0.7088	* 0.6253	* 0.6934	* 0.6222	* 0.6921	* 0.6336	* 0.3530
	* 2.8112	* 2.6779	* 2.8888	* 2.7627	* 2.8728	* 2.7736	* 3.0722	* 4.5890
12	* 0.7131	* 0.6498	* 0.7104	* 0.6222	* 0.5501	* 0.6215	* 0.4560	
	* 2.6372	* 2.7100	* 2.7191	* 2.8727	* 2.7166	* 2.8531	* 3.4951	
13	* 0.6325	* 0.6363	* 0.6355	* 0.6921	* 0.6215	* 0.4581	* 0.2965	
	* 2.7264	* 2.7449	* 2.7957	* 2.7735	* 2.8532	* 3.3029	* 5.2358	
14	* 0.6669	* 0.6665	* 0.6618	* 0.6337	* 0.4560	* 0.2965		
	* 2.7885	* 2.8017	* 2.8801	* 3.0720	* 3.4946	* 5.2356		
15	* 0.4065	* 0.4070	* 0.3927	* 0.3532	* F-SUB-Q			
	* 3.8093	* 3.8713	* 3.9977	* 4.5904	* M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2450	* 1.0789	* 1.0432	* 1.1006	* 1.3337	* 1.1854	* 1.3153	* 0.7740
	* 1.4642	* 1.6447	* 1.7988	* 1.6479	* 1.4480	* 1.4908	* 1.4518	* 2.0562
9	* 1.0789	* 1.2806	* 1.1804	* 1.3261	* 1.1557	* 1.1949	* 1.3149	* 0.7751
	* 1.6447	* 1.5069	* 1.5758	* 1.4679	* 1.5635	* 1.4973	* 1.4577	* 2.0876
10	* 1.0432	* 1.1806	* 1.0366	* 1.0975	* 1.3334	* 1.2010	* 1.3100	* 0.7409
	* 1.7988	* 1.5756	* 1.8048	* 1.6892	* 1.4862	* 1.5214	* 1.4919	* 2.1795
11	* 1.1006	* 1.3261	* 1.0976	* 1.3447	* 1.1061	* 1.3228	* 1.2723	* 0.6584
	* 1.6479	* 1.4679	* 1.6890	* 1.4545	* 1.6518	* 1.4794	* 1.5497	* 2.5245
12	* 1.3337	* 1.1558	* 1.3334	* 1.1061	* 1.1391	* 1.2761	* 0.8773	
	* 1.4480	* 1.5635	* 1.4862	* 1.6518	* 1.4909	* 1.4714	* 1.8544	
13	* 1.1854	* 1.1949	* 1.2011	* 1.3228	* 1.2761	* 0.9011	* 0.5509	
	* 1.4908	* 1.4973	* 1.5213	* 1.4794	* 1.4714	* 1.7934	* 2.8909	
14	* 1.3153	* 1.3149	* 1.3101	* 1.2724	* 0.8773	* 0.5508		
	* 1.4518	* 1.4577	* 1.4918	* 1.5497	* 1.8541	* 2.8909		
15	* 0.7740	* 0.7749	* 0.7418	* 0.6588	* F-SUB-Q			
	* 2.0562	* 2.0865	* 2.1797	* 2.5251	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4866	1.2367	1.1668	1.2423	1.5247	1.3437	1.5178	0.8925
	1.3130	1.4875	1.6284	1.4793	1.2825	1.3312	1.2727	1.8060
9	1.2367	1.4789	1.3242	1.5160	1.2995	1.3559	1.5176	0.8925
	1.4875	1.3384	1.4236	1.3005	1.4089	1.3378	1.2778	1.8313
10	1.1668	1.3243	1.1649	1.2402	1.5378	1.3647	1.5135	0.8623
	1.6284	1.4234	1.6312	1.5163	1.3049	1.3531	1.3069	1.8918
11	1.2423	1.5161	1.2403	1.5471	1.2595	1.5352	1.4824	0.7704
	1.4793	1.3005	1.5161	1.2871	1.4763	1.2952	1.3450	2.1857
12	1.5247	1.2995	1.5379	1.2595	1.3289	1.4967	1.0323	
	1.2825	1.4088	1.3049	1.4763	1.3649	1.2967	1.6029	
13	1.3437	1.3559	1.3648	1.5353	1.4967	1.0535	0.6406	
	1.3312	1.3378	1.3530	1.2952	1.2967	1.6007	2.5402	
14	1.5178	1.5176	1.5136	1.4825	1.0323	0.6405		
	1.2727	1.2778	1.3068	1.3450	1.6027	2.5403		
15	0.8925	0.8923	0.8633	0.7709	F-SUB-Q			
	1.8060	1.8303	1.8916	2.1862	M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6034	1.3020	1.2163	1.3009	1.6301	1.4130	1.6349	0.9263
	1.2443	1.4418	1.5833	1.4272	1.2110	1.2768	1.1914	1.7564
9	1.3020	1.5876	1.3890	1.6221	1.3617	1.4266	1.6350	0.9245
	1.4418	1.2686	1.3716	1.2277	1.3576	1.2843	1.1959	1.7845
10	1.2163	1.3892	1.2165	1.3028	1.6554	1.4454	1.6347	0.8850
	1.5833	1.3714	1.5813	1.4615	1.2266	1.2935	1.2202	1.8607
11	1.3009	1.6222	1.3030	1.6636	1.3280	1.6601	1.6086	0.7952
	1.4272	1.2277	1.4613	1.2148	1.4205	1.2135	1.2536	2.1382
12	1.6301	1.3617	1.6554	1.3281	1.4104	1.6229	1.0770	
	1.2110	1.3576	1.2266	1.4205	1.3139	1.2186	1.5598	
13	1.4130	1.4266	1.4455	1.6601	1.6229	1.0987	0.6588	
	1.2768	1.2842	1.2934	1.2135	1.2186	1.5690	2.5169	
14	1.6349	1.6350	1.6348	1.6086	1.0770	0.6587		
	1.1914	1.1959	1.2201	1.2535	1.5596	2.5169		
15	0.9263	0.9242	0.8864	0.7957	F-SUB-Q			
	1.7564	1.7836	1.8597	2.1386	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6200	* 1.3035	* 1.2117	* 1.2996	* 1.6402	* 1.4137	* 1.6522	* 0.9284
	* 1.2530	* 1.4643	* 1.5999	* 1.4429	* 1.2153	* 1.2873	* 1.1888	* 1.7690
9	* 1.3035	* 1.6008	* 1.3876	* 1.6338	* 1.3608	* 1.4278	* 1.6532	* 0.9285
	* 1.4643	* 1.2782	* 1.3872	* 1.2318	* 1.3716	* 1.2943	* 1.1930	* 1.7935
10	* 1.2117	* 1.3878	* 1.2134	* 1.3053	* 1.6726	* 1.4522	* 1.6547	* 0.8910
	* 1.5999	* 1.3870	* 1.6037	* 1.4750	* 1.2299	* 1.3011	* 1.2152	* 1.8652
11	* 1.2996	* 1.6339	* 1.3055	* 1.6805	* 1.3339	* 1.6814	* 1.6330	* 0.8021
	* 1.4429	* 1.2317	* 1.4748	* 1.2200	* 1.4345	* 1.2145	* 1.2506	* 2.1382
12	* 1.6402	* 1.3607	* 1.6727	* 1.3339	* 1.4181	* 1.6453	* 1.0883	
	* 1.2153	* 1.3715	* 1.2299	* 1.4345	* 1.3290	* 1.2214	* 1.5669	
13	* 1.4137	* 1.4278	* 1.4524	* 1.6815	* 1.6453	* 1.1057	* 0.6590	
	* 1.2873	* 1.2942	* 1.3010	* 1.2145	* 1.2214	* 1.5869	* 2.5616	
14	* 1.6522	* 1.6532	* 1.6548	* 1.6330	* 1.0882	* 0.6589		
	* 1.1888	* 1.1930	* 1.2151	* 1.2505	* 1.5667	* 2.5617		
15	* 0.9284	* 0.9283	* 0.8921	* 0.8025	* F-SUB-Q			
	* 1.7690	* 1.7926	* 1.8648	* 2.1387	* M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6054	* 1.2871	* 1.1992	* 1.2815	* 1.6218	* 1.3953	* 1.6374	* 0.9201
	* 1.2811	* 1.5012	* 1.6299	* 1.4798	* 1.2430	* 1.3185	* 1.2119	* 1.8048
9	* 1.2871	* 1.5849	* 1.3684	* 1.6165	* 1.3424	* 1.4101	* 1.6390	* 0.9224
	* 1.5012	* 1.3060	* 1.4210	* 1.2591	* 1.4064	* 1.3241	* 1.2157	* 1.8254
10	* 1.1992	* 1.3686	* 1.1948	* 1.2894	* 1.6574	* 1.4361	* 1.6409	* 0.8881
	* 1.6299	* 1.4208	* 1.6415	* 1.5083	* 1.2505	* 1.3273	* 1.2362	* 1.8906
11	* 1.2815	* 1.6166	* 1.2896	* 1.6655	* 1.3194	* 1.6680	* 1.6228	* 0.7991
	* 1.4798	* 1.2591	* 1.5081	* 1.2428	* 1.4648	* 1.2359	* 1.2686	* 2.1647
12	* 1.6218	* 1.3423	* 1.6574	* 1.3194	* 1.4026	* 1.6336	* 1.0859	
	* 1.2430	* 1.4064	* 1.2505	* 1.4648	* 1.3639	* 1.2484	* 1.5903	
13	* 1.3953	* 1.4102	* 1.4362	* 1.6681	* 1.6335	* 1.0994	* 0.6538	
	* 1.3185	* 1.3241	* 1.3272	* 1.2359	* 1.2484	* 1.6240	* 2.6262	
14	* 1.6374	* 1.6390	* 1.6410	* 1.6229	* 1.0858	* 0.6536		
	* 1.2119	* 1.2157	* 1.2361	* 1.2686	* 1.5901	* 2.6263		
15	* 0.9201	* 0.9221	* 0.8892	* 0.7996	* F-SUB-Q			
	* 1.8048	* 1.8245	* 1.8902	* 2.1652	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6024	* 1.2761	* 1.1817	* 1.2681	* 1.6151	* 1.3829	* 1.6344	* 0.9058
	* 1.3007	* 1.5327	* 1.6712	* 1.5162	* 1.2653	* 1.3484	* 1.2300	* 1.8586
9	* 1.2761	* 1.5809	* 1.3572	* 1.6108	* 1.3287	* 1.3986	* 1.6365	* 0.9073
	* 1.5327	* 1.3224	* 1.4432	* 1.2802	* 1.4403	* 1.3512	* 1.2332	* 1.8810
10	* 1.1817	* 1.3574	* 1.1820	* 1.2769	* 1.6529	* 1.4265	* 1.6387	* 0.8711
	* 1.6712	* 1.4429	* 1.6691	* 1.5283	* 1.2576	* 1.3411	* 1.2506	* 1.9508
11	* 1.2681	* 1.6109	* 1.2771	* 1.6616	* 1.3074	* 1.6651	* 1.6227	* 0.7854
	* 1.5162	* 1.2802	* 1.5281	* 1.2529	* 1.4877	* 1.2453	* 1.2730	* 2.2194
12	* 1.6151	* 1.3287	* 1.6529	* 1.3074	* 1.3929	* 1.6326	* 1.0708	
	* 1.2653	* 1.4402	* 1.2576	* 1.4877	* 1.3906	* 1.2643	* 1.6277	
13	* 1.3829	* 1.3987	* 1.4266	* 1.6651	* 1.6326	* 1.0835	* 0.6400	
	* 1.3484	* 1.3512	* 1.3410	* 1.2453	* 1.2643	* 1.6683	* 2.7176	
14	* 1.6344	* 1.6366	* 1.6388	* 1.6228	* 1.0708	* 0.6398		
	* 1.2300	* 1.2332	* 1.2505	* 1.2729	* 1.6275	* 2.7177		
15	* 0.9058	* 0.9070	* 0.8721	* 0.7859	* F-SUB-Q			
	* 1.8586	* 1.8802	* 1.9505	* 2.2200	* M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5952	* 1.2656	* 1.1698	* 1.2554	* 1.6043	* 1.3700	* 1.6254	* 0.8953
	* 1.3180	* 1.5596	* 1.7054	* 1.5574	* 1.2956	* 1.3845	* 1.2575	* 1.9130
9	* 1.2656	* 1.5729	* 1.3455	* 1.6007	* 1.3155	* 1.3859	* 1.6278	* 0.8971
	* 1.5596	* 1.3425	* 1.4716	* 1.3090	* 1.4793	* 1.3843	* 1.2601	* 1.9349
10	* 1.1698	* 1.3458	* 1.1692	* 1.2645	* 1.6430	* 1.4150	* 1.6302	* 0.8612
	* 1.7054	* 1.4713	* 1.7083	* 1.5625	* 1.2799	* 1.3679	* 1.2723	* 2.0029
11	* 1.2554	* 1.6008	* 1.2647	* 1.6522	* 1.2952	* 1.6562	* 1.6160	* 0.7759
	* 1.5574	* 1.3089	* 1.5624	* 1.2735	* 1.5168	* 1.2644	* 1.2915	* 2.2637
12	* 1.6043	* 1.3154	* 1.6430	* 1.2952	* 1.3816	* 1.6249	* 1.0613	
	* 1.2956	* 1.4793	* 1.2799	* 1.5168	* 1.4134	* 1.2801	* 1.6554	
13	* 1.3700	* 1.3860	* 1.4151	* 1.6562	* 1.6249	* 1.0726	* 0.6308	
	* 1.3845	* 1.3843	* 1.3678	* 1.2644	* 1.2801	* 1.7015	* 2.7764	
14	* 1.6254	* 1.6279	* 1.6303	* 1.6160	* 1.0613	* 0.6306		
	* 1.2575	* 1.2601	* 1.2722	* 1.2914	* 1.6552	* 2.7765		
15	* 0.8953	* 0.8968	* 0.8622	* 0.7763	* F-SUB-Q			
	* 1.9130	* 1.9341	* 2.0025	* 2.2643	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5970	1.2607	1.1632	1.2484	1.6024	1.3630	1.6249	0.8862
	1.3480	1.6013	1.7471	1.5995	1.3248	1.4216	1.2846	1.9745
9	1.2607	1.5739	1.3405	1.5995	1.3081	1.3793	1.6276	0.8873
	1.6013	1.3709	1.5006	1.3347	1.5188	1.4178	1.2863	1.9981
10	1.1632	1.3408	1.1623	1.2575	1.6418	1.4095	1.6301	0.8495
	1.7471	1.5003	1.7443	1.5967	1.3015	1.3902	1.2926	2.0691
11	1.2484	1.5996	1.2576	1.6517	1.2877	1.6557	1.6169	0.7643
	1.5995	1.3346	1.5966	1.2999	1.5563	1.2896	1.3113	2.3296
12	1.6024	1.3080	1.6418	1.2877	1.3763	1.6254	1.0515	
	1.3248	1.5188	1.3015	1.5563	1.4483	1.3047	1.7023	
13	1.3631	1.3794	1.4096	1.6557	1.6254	1.0626	0.6220	
	1.4216	1.4177	1.3901	1.2896	1.3047	1.7512	2.8670	
14	1.6249	1.6277	1.6302	1.6169	1.0515	0.6218		
	1.2846	1.2863	1.2926	1.3112	1.7022	2.8671		
15	0.8862	0.8870	0.8508	0.7648	F-SUB-Q			
	1.9745	1.9972	2.0680	2.3301	M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5781	1.2498	1.1633	1.2354	1.5801	1.3475	1.6024	0.8861
	1.4051	1.6607	1.7856	1.6580	1.3790	1.4761	1.3369	2.0274
9	1.2498	1.5546	1.3263	1.5777	1.2941	1.3635	1.6048	0.8909
	1.6607	1.4232	1.5526	1.3865	1.5753	1.4693	1.3378	2.0423
10	1.1633	1.3266	1.1507	1.2448	1.6192	1.3927	1.6081	0.8614
	1.7856	1.5522	1.8044	1.6475	1.3466	1.4364	1.3406	2.0894
11	1.2354	1.5778	1.2451	1.6294	1.2746	1.6330	1.5958	0.7718
	1.6580	1.3864	1.6473	1.3433	1.6038	1.3321	1.3534	2.3557
12	1.5801	1.2941	1.6192	1.2746	1.3601	1.6031	1.0585	
	1.3790	1.5753	1.3465	1.6038	1.5062	1.3575	1.7269	
13	1.3475	1.3636	1.3928	1.6330	1.6031	1.0660	0.6250	
	1.4761	1.4692	1.4363	1.3321	1.3575	1.7950	2.9238	
14	1.6024	1.6049	1.6081	1.5958	1.0584	0.6249		
	1.3369	1.3378	1.3406	1.3534	1.7267	2.9240		
15	0.8861	0.8906	0.8625	0.7723	F-SUB-Q			
	2.0274	2.0414	2.0890	2.3563	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6005	1.2564	1.1555	1.2390	1.5987	1.3536	1.6230	0.8786
	1.4232	1.6978	1.8554	1.7062	1.4070	1.5166	1.3618	2.1094
9	1.2564	1.5760	1.3348	1.5970	1.2985	1.3703	1.6259	0.8808
	1.6978	1.4439	1.5911	1.4134	1.6202	1.5064	1.3618	2.1306
10	1.1555	1.3351	1.1520	1.2486	1.6386	1.4016	1.6297	0.8449
	1.8554	1.5907	1.8564	1.6923	1.3698	1.4689	1.3617	2.1935
11	1.2390	1.5971	1.2488	1.6498	1.2782	1.6534	1.6176	0.7592
	1.7062	1.4133	1.6921	1.3650	1.6443	1.3523	1.3722	2.4635
12	1.5987	1.2984	1.6386	1.2782	1.3689	1.6249	1.0473	
	1.4070	1.6203	1.3698	1.6443	1.5331	1.3721	1.7899	
13	1.3536	1.3704	1.4017	1.6534	1.6249	1.0564	0.6144	
	1.5166	1.5063	1.4688	1.3523	1.3721	1.8544	3.0415	
14	1.6230	1.6260	1.6297	1.6176	1.0472	0.6142		
	1.3618	1.3618	1.3617	1.3722	1.7898	3.0417		
15	0.8786	0.8805	0.8461	0.7597	F-SUB-Q			
	2.1094	2.1298	2.1927	2.4640	M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6076	1.2586	1.1566	1.2388	1.6020	1.3532	1.6268	0.8778
	1.4688	1.7571	1.9226	1.7709	1.4571	1.5735	1.4088	2.1888
9	1.2586	1.5822	1.3364	1.6010	1.2981	1.3700	1.6298	0.8804
	1.7571	1.4913	1.6492	1.4625	1.6818	1.5611	1.4074	2.2092
10	1.1566	1.3368	1.1513	1.2483	1.6421	1.4019	1.6342	0.8452
	1.9226	1.6487	1.9274	1.7555	1.4168	1.5211	1.4055	2.2698
11	1.2388	1.6010	1.2485	1.6540	1.2777	1.6574	1.6225	0.7593
	1.7709	1.4625	1.7554	1.4111	1.7039	1.3970	1.4159	2.5453
12	1.6020	1.2980	1.6421	1.2777	1.3696	1.6294	1.0487	
	1.4571	1.6818	1.4168	1.7039	1.5845	1.4145	1.8483	
13	1.3532	1.3701	1.4020	1.6574	1.6293	1.0568	0.6128	
	1.5735	1.5610	1.5210	1.3970	1.4146	1.9146	3.1479	
14	1.6268	1.6298	1.6342	1.6226	1.0486	0.6126		
	1.4088	1.4074	1.4055	1.4158	1.8482	3.1482		
15	0.8778	0.8801	0.8463	0.7598	F-SUB-Q			
	2.1888	2.2084	2.2691	2.5458	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6013	* 1.2566	* 1.1648	* 1.2350	* 1.5921	* 1.3471	* 1.6170	* 0.8819
	* 1.4481	* 1.7087	* 1.8321	* 1.7133	* 1.4282	* 1.5584	* 1.4105	* 2.1534
9	* 1.2566	* 1.5752	* 1.3317	* 1.5917	* 1.2932	* 1.3637	* 1.6197	* 0.8872
	* 1.7087	* 1.4592	* 1.5956	* 1.4315	* 1.6355	* 1.5512	* 1.4116	* 2.1676
10	* 1.1648	* 1.3321	* 1.1509	* 1.2445	* 1.6323	* 1.3951	* 1.6248	* 0.8584
	* 1.8321	* 1.5951	* 1.8563	* 1.7159	* 1.4116	* 1.5219	* 1.4152	* 2.2158
11	* 1.2350	* 1.5917	* 1.2448	* 1.6446	* 1.2734	* 1.6476	* 1.6140	* 0.7680
	* 1.7133	* 1.4315	* 1.7156	* 1.4023	* 1.6894	* 1.4059	* 1.4324	* 2.5041
12	* 1.5921	* 1.2931	* 1.6322	* 1.2734	* 1.3631	* 1.6198	* 1.0596	
	* 1.4282	* 1.6356	* 1.4116	* 1.6894	* 1.6057	* 1.4409	* 1.8364	
13	* 1.3471	* 1.3638	* 1.3952	* 1.6475	* 1.6197	* 1.0648	* 0.6181	
	* 1.5584	* 1.5511	* 1.5218	* 1.4059	* 1.4409	* 1.9170	* 3.1273	
14	* 1.6169	* 1.6198	* 1.6249	* 1.6140	* 1.0595	* 0.6179		
	* 1.4105	* 1.4116	* 1.4152	* 1.4324	* 1.8362	* 3.1276		
15	* 0.8819	* 0.8869	* 0.8595	* 0.7684	* F-SUB-Q			
	* 2.1534	* 2.1668	* 2.2154	* 2.5047	* M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6298	* 1.2685	* 1.1615	* 1.2437	* 1.6166	* 1.3585	* 1.6439	* 0.8779
	* 1.3723	* 1.6323	* 1.7723	* 1.6409	* 1.3562	* 1.4901	* 1.3374	* 2.0860
9	* 1.2685	* 1.6026	* 1.3454	* 1.6169	* 1.3026	* 1.3759	* 1.6471	* 0.8808
	* 1.6323	* 1.3829	* 1.5234	* 1.3587	* 1.5657	* 1.4817	* 1.3382	* 2.1057
10	* 1.1615	* 1.3458	* 1.1540	* 1.2535	* 1.6576	* 1.4094	* 1.6530	* 0.8454
	* 1.7723	* 1.5229	* 1.7848	* 1.6413	* 1.3384	* 1.4504	* 1.3401	* 2.1686
11	* 1.2437	* 1.6170	* 1.2537	* 1.6711	* 1.2822	* 1.6740	* 1.6424	* 0.7585
	* 1.6409	* 1.3587	* 1.6412	* 1.3290	* 1.6149	* 1.3323	* 1.3552	* 2.4414
12	* 1.6166	* 1.3025	* 1.6576	* 1.2821	* 1.3773	* 1.6479	* 1.0527	
	* 1.3562	* 1.5658	* 1.3384	* 1.6149	* 1.5304	* 1.3640	* 1.7790	
13	* 1.3585	* 1.3760	* 1.4095	* 1.6739	* 1.6479	* 1.0592	* 0.6100	
	* 1.4901	* 1.4816	* 1.4503	* 1.3323	* 1.3641	* 1.8551	* 3.0472	
14	* 1.6439	* 1.6471	* 1.6531	* 1.6424	* 1.0526	* 0.6098		
	* 1.3374	* 1.3382	* 1.3401	* 1.3552	* 1.7788	* 3.0475		
15	* 0.8779	* 0.8804	* 0.8466	* 0.7590	* F-SUB-Q			
	* 2.0860	* 2.1050	* 2.1677	* 2.4420	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6484	* 1.2782	* 1.1684	* 1.2508	* 1.6315	* 1.3666	* 1.6601	* 0.8799
	* 1.3193	* 1.5746	* 1.7143	* 1.5847	* 1.3055	* 1.4387	* 1.2860	* 2.0208
9	* 1.2782	* 1.6202	* 1.3551	* 1.6324	* 1.3098	* 1.3843	* 1.6635	* 0.8802
	* 1.5746	* 1.3295	* 1.4696	* 1.3073	* 1.5126	* 1.4299	* 1.2866	* 2.0457
10	* 1.1684	* 1.3555	* 1.1600	* 1.2608	* 1.6729	* 1.4191	* 1.6704	* 0.8445
	* 1.7143	* 1.4691	* 1.7243	* 1.5841	* 1.2869	* 1.3976	* 1.2873	* 2.1071
11	* 1.2508	* 1.6325	* 1.2610	* 1.6873	* 1.2893	* 1.6901	* 1.6602	* 0.7580
	* 1.5847	* 1.3073	* 1.5840	* 1.2775	* 1.5582	* 1.2798	* 1.3000	* 2.3695
12	* 1.6315	* 1.3097	* 1.6729	* 1.2893	* 1.3869	* 1.6650	* 1.0563	
	* 1.3055	* 1.5127	* 1.2869	* 1.5582	* 1.4738	* 1.3086	* 1.7188	
13	* 1.3666	* 1.3844	* 1.4192	* 1.6901	* 1.6649	* 1.0622	* 0.6092	
	* 1.4387	* 1.4298	* 1.3975	* 1.2798	* 1.3086	* 1.7931	* 2.9553	
14	* 1.6601	* 1.6635	* 1.6704	* 1.6602	* 1.0562	* 0.6090		
	* 1.2860	* 1.2866	* 1.2873	* 1.3000	* 1.7187	* 2.9555		
15	* 0.8799	* 0.8798	* 0.8460	* 0.7585	* F-SUB-Q			
	* 2.0208	* 2.0450	* 2.1054	* 2.3699	* M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6635	* 1.2878	* 1.1772	* 1.2582	* 1.6434	* 1.3743	* 1.6726	* 0.8861
	* 1.2764	* 1.5263	* 1.6596	* 1.5385	* 1.2649	* 1.3953	* 1.2444	* 1.9570
9	* 1.2878	* 1.6344	* 1.3646	* 1.6448	* 1.3174	* 1.3923	* 1.6760	* 0.8897
	* 1.5263	* 1.2867	* 1.4252	* 1.2662	* 1.4679	* 1.3860	* 1.2448	* 1.9736
10	* 1.1772	* 1.3651	* 1.1657	* 1.2683	* 1.6852	* 1.4273	* 1.6834	* 0.8551
	* 1.6596	* 1.4246	* 1.6752	* 1.5360	* 1.2451	* 1.3538	* 1.2449	* 2.0282
11	* 1.2582	* 1.6449	* 1.2685	* 1.7004	* 1.2967	* 1.7026	* 1.6736	* 0.7667
	* 1.5385	* 1.2662	* 1.5359	* 1.2355	* 1.5096	* 1.2374	* 1.2556	* 2.2818
12	* 1.6434	* 1.3173	* 1.6852	* 1.2967	* 1.3953	* 1.6779	* 1.0669	
	* 1.2649	* 1.4680	* 1.2451	* 1.5096	* 1.4263	* 1.2639	* 1.6562	
13	* 1.3743	* 1.3924	* 1.4274	* 1.7026	* 1.6778	* 1.0717	* 0.6135	
	* 1.3953	* 1.3859	* 1.3538	* 1.2374	* 1.2639	* 1.7290	* 2.8550	
14	* 1.6726	* 1.6760	* 1.6835	* 1.6736	* 1.0668	* 0.6133		
	* 1.2444	* 1.2448	* 1.2449	* 1.2556	* 1.6561	* 2.8553		
15	* 0.8861	* 0.8893	* 0.8563	* 0.7672	* F-SUB-Q			
	* 1.9570	* 1.9730	* 2.0276	* 2.2823	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6742	* 1.2978	* 1.1969	* 1.2668	* 1.6501	* 1.3821	* 1.6791	* 0.8990
	* 1.3454	* 1.6063	* 1.7334	* 1.6222	* 1.3366	* 1.4708	* 1.3134	* 2.0443
9	* 1.2978	* 1.6431	* 1.3733	* 1.6519	* 1.3259	* 1.4000	* 1.6822	* 0.9053
	* 1.6063	* 1.3575	* 1.5034	* 1.3376	* 1.5480	* 1.4606	* 1.3135	* 2.0553
10	* 1.1969	* 1.3738	* 1.1808	* 1.2769	* 1.6923	* 1.4361	* 1.6902	* 0.8767
	* 1.7334	* 1.5029	* 1.7573	* 1.6175	* 1.3132	* 1.4245	* 1.3126	* 2.0955
11	* 1.2668	* 1.6520	* 1.2772	* 1.7079	* 1.3055	* 1.7098	* 1.6810	* 0.7828
	* 1.6222	* 1.3375	* 1.6173	* 1.3030	* 1.5878	* 1.3037	* 1.3221	* 2.3658
12	* 1.6501	* 1.3257	* 1.6923	* 1.3055	* 1.4027	* 1.6845	* 1.0882	
	* 1.3366	* 1.5481	* 1.3132	* 1.5877	* 1.4993	* 1.3299	* 1.7167	
13	* 1.3821	* 1.4001	* 1.4361	* 1.7098	* 1.6845	* 1.0903	* 0.6247	
	* 1.4708	* 1.4605	* 1.4245	* 1.3037	* 1.3299	* 1.7952	* 2.9629	
14	* 1.6791	* 1.6822	* 1.6902	* 1.6810	* 1.0881	* 0.6245		
	* 1.3134	* 1.3135	* 1.3125	* 1.3221	* 1.7166	* 2.9632		
15	* 0.8990	* 0.9049	* 0.8778	* 0.7832	* F-SUB-Q			
	* 2.0443	* 2.0546	* 2.0949	* 2.3664	* M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7219	* 1.3238	* 1.2053	* 1.2898	* 1.6957	* 1.4096	* 1.7275	* 0.9035
	* 1.2844	* 1.5502	* 1.7005	* 1.5741	* 1.2849	* 1.4233	* 1.2591	* 2.0065
9	* 1.3238	* 1.6907	* 1.4026	* 1.6982	* 1.3503	* 1.4286	* 1.7312	* 0.9049
	* 1.5502	* 1.2998	* 1.4533	* 1.2848	* 1.5017	* 1.4119	* 1.2584	* 2.0284
10	* 1.2053	* 1.4032	* 1.1936	* 1.3003	* 1.7392	* 1.4661	* 1.7402	* 0.8688
	* 1.7005	* 1.4527	* 1.7148	* 1.5679	* 1.2597	* 1.3749	* 1.2557	* 2.0846
11	* 1.2898	* 1.6983	* 1.3005	* 1.7561	* 1.3289	* 1.7580	* 1.7308	* 0.7784
	* 1.5741	* 1.2848	* 1.5677	* 1.2493	* 1.5371	* 1.2486	* 1.2641	* 2.3437
12	* 1.6957	* 1.3502	* 1.7392	* 1.3289	* 1.4335	* 1.7340	* 1.0904	
	* 1.2849	* 1.5018	* 1.2598	* 1.5371	* 1.4393	* 1.2695	* 1.6856	
13	* 1.4096	* 1.4287	* 1.4661	* 1.7580	* 1.7339	* 1.0946	* 0.6219	
	* 1.4233	* 1.4118	* 1.3749	* 1.2486	* 1.2695	* 1.7559	* 2.9262	
14	* 1.7275	* 1.7312	* 1.7402	* 1.7308	* 1.0903	* 0.6217		
	* 1.2591	* 1.2584	* 1.2557	* 1.2641	* 1.6855	* 2.9266		
15	* 0.9035	* 0.9044	* 0.8705	* 0.7790	* F-SUB-Q			
	* 2.0065	* 2.0278	* 2.0829	* 2.3441	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7560	* 1.3466	* 1.2247	* 1.3107	* 1.7272	* 1.4335	* 1.7606	* 0.9171 *
	* 1.2203	* 1.4801	* 1.6304	* 1.5097	* 1.2288	* 1.3659	* 1.2058	* 1.9330 *
9	* 1.3466	* 1.7235	* 1.4270	* 1.7300	* 1.3724	* 1.4529	* 1.7644	* 0.9185 *
	* 1.4801	* 1.2394	* 1.3916	* 1.2282	* 1.4398	* 1.3545	* 1.2047	* 1.9539 *
10	* 1.2247	* 1.4276	* 1.2119	* 1.3213	* 1.7718	* 1.4916	* 1.7740	* 0.8821 *
	* 1.6304	* 1.3910	* 1.6454	* 1.5021	* 1.2039	* 1.3175	* 1.2012	* 2.0070 *
11	* 1.3107	* 1.7301	* 1.3215	* 1.7893	* 1.3504	* 1.7914	* 1.7646	* 0.7896 *
	* 1.5097	* 1.2282	* 1.5019	* 1.1928	* 1.4725	* 1.1929	* 1.2086	* 2.2582 *
12	* 1.7272	* 1.3722	* 1.7718	* 1.3504	* 1.4581	* 1.7673	* 1.1082 *	
	* 1.2288	* 1.4399	* 1.2039	* 1.4724	* 1.3742	* 1.2116	* 1.6165 *	
13	* 1.4335	* 1.4530	* 1.4916	* 1.7914	* 1.7673	* 1.1121	* 0.6298 *	
	* 1.3659	* 1.3544	* 1.3174	* 1.1930	* 1.2116	* 1.6816	* 2.8222 *	
14	* 1.7606	* 1.7644	* 1.7740	* 1.7646	* 1.1080	* 0.6296 *		
	* 1.2058	* 1.2047	* 1.2012	* 1.2086	* 1.6165	* 2.8226 *		
15	* 0.9171	* 0.9180	* 0.8838	* 0.7902	* F-SUB-Q			
	* 1.9330	* 1.9533	* 2.0053	* 2.2585	* M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7682	* 1.3618	* 1.2542	* 1.3255	* 1.7355	* 1.4488	* 1.7688	* 0.9381 *
	* 1.1829	* 1.4301	* 1.5587	* 1.4618	* 1.1968	* 1.3222	* 1.1736	* 1.8489 *
9	* 1.3618	* 1.7323	* 1.4413	* 1.7381	* 1.3878	* 1.4677	* 1.7720	* 0.9451 *
	* 1.4301	* 1.2049	* 1.3488	* 1.1960	* 1.3941	* 1.3112	* 1.1725	* 1.8579 *
10	* 1.2542	* 1.4419	* 1.2365	* 1.3383	* 1.7804	* 1.5072	* 1.7810	* 0.9158 *
	* 1.5587	* 1.3482	* 1.5809	* 1.4525	* 1.1704	* 1.2736	* 1.1684	* 1.8906 *
11	* 1.3255	* 1.7382	* 1.3385	* 1.7974	* 1.3672	* 1.8000	* 1.7719	* 0.8152 *
	* 1.4618	* 1.1960	* 1.4524	* 1.1600	* 1.4226	* 1.1587	* 1.1746	* 2.1376 *
12	* 1.7355	* 1.3877	* 1.7804	* 1.3672	* 1.4707	* 1.7742	* 1.1400 *	
	* 1.1968	* 1.3942	* 1.1704	* 1.4226	* 1.3281	* 1.1761	* 1.5334 *	
13	* 1.4488	* 1.4678	* 1.5072	* 1.7999	* 1.7742	* 1.1415	* 0.6481 *	
	* 1.3222	* 1.3111	* 1.2736	* 1.1587	* 1.1761	* 1.5970	* 2.6763 *	
14	* 1.7688	* 1.7720	* 1.7811	* 1.7719	* 1.1399	* 0.6479 *		
	* 1.1736	* 1.1725	* 1.1683	* 1.1746	* 1.5333	* 2.6766 *		
15	* 0.9381	* 0.9447	* 0.9170	* 0.8158	* F-SUB-Q			
	* 1.8489	* 1.8573	* 1.8901	* 2.1380	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7969	1.3799	1.2551	1.3422	1.7669	1.4712	1.8007	0.9374
	1.1420	1.3856	1.5309	1.4190	1.1548	1.2787	1.1313	1.8174
9	1.3799	1.7638	1.4647	1.7689	1.4064	1.4905	1.8041	0.9404
	1.3856	1.1616	1.3042	1.1544	1.3517	1.2677	1.1299	1.8337
10	1.2551	1.4654	1.2390	1.3508	1.8110	1.5288	1.8120	0.9048
	1.5309	1.3036	1.5492	1.4112	1.1289	1.2316	1.1258	1.8787
11	1.3422	1.7690	1.3511	1.8281	1.3796	1.8307	1.8010	0.8058
	1.4190	1.1543	1.4110	1.1188	1.3814	1.1169	1.1326	2.1220
12	1.7669	1.4063	1.8110	1.3796	1.4935	1.8051	1.1333	
	1.1548	1.3519	1.1289	1.3814	1.2816	1.1322	1.5119	
13	1.4712	1.4906	1.5288	1.8306	1.8051	1.1400	0.6424	
	1.2787	1.2676	1.2316	1.1169	1.1322	1.5668	2.6473	
14	1.8007	1.8040	1.8121	1.8010	1.1331	0.6422		
	1.1313	1.1299	1.1258	1.1326	1.5119	2.6477		
15	0.9374	0.9399	0.8064	0.9062	0.8064	F-SUB-Q		
	1.8174	1.8332	1.8778	2.1223	M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7339	1.3447	1.2274	1.3080	1.7102	1.4371	1.7373	0.9082
	1.1648	1.4008	1.5437	1.4352	1.1753	1.2890	1.1541	1.8471
9	1.3447	1.7049	1.4325	1.7099	1.3724	1.4536	1.7404	0.9091
	1.4008	1.1832	1.3140	1.1760	1.3652	1.2800	1.1525	1.8676
10	1.2274	1.4331	1.2108	1.3140	1.7485	1.4889	1.7460	0.8764
	1.5437	1.3135	1.5633	1.4291	1.1504	1.2441	1.1491	1.9096
11	1.3080	1.7100	1.3142	1.7639	1.3406	1.7655	1.7309	0.7757
	1.4352	1.1760	1.4289	1.1411	1.3997	1.1389	1.1584	2.1698
12	1.7102	1.3722	1.7485	1.3406	1.4564	1.7397	1.0956	
	1.1753	1.3653	1.1505	1.3997	1.2925	1.1545	1.5381	
13	1.4372	1.4537	1.4889	1.7654	1.7397	1.1082	0.6226	
	1.2890	1.2799	1.2441	1.1389	1.1545	1.5851	2.6880	
14	1.7373	1.7404	1.7460	1.7309	1.0955	0.6224		
	1.1541	1.1525	1.1491	1.1584	1.5380	2.6884		
15	0.9082	0.9084	0.8772	0.7763	F-SUB-Q			
	1.8471	1.8676	1.9100	2.1700	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 100% POWER, 465 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4837	* 1.1808	* 1.0860	* 1.1468	* 1.4702	* 1.2577	* 1.4832	* 0.7880
	* 1.3414	* 1.5731	* 1.7219	* 1.6156	* 1.3479	* 1.4525	* 1.3318	* 2.0998
9	* 1.1808	* 1.4642	* 1.2635	* 1.4687	* 1.2082	* 1.2718	* 1.4860	* 0.7942
	* 1.5731	* 1.3581	* 1.4700	* 1.3499	* 1.5297	* 1.4424	* 1.3296	* 2.1082
10	* 1.0860	* 1.2640	* 1.0687	* 1.1508	* 1.4949	* 1.3011	* 1.4891	* 0.7634
	* 1.7219	* 1.4693	* 1.7487	* 1.6097	* 1.3258	* 1.4033	* 1.3271	* 2.1605
11	* 1.1468	* 1.4688	* 1.1510	* 1.5155	* 1.1743	* 1.5039	* 1.4679	* 0.6665
	* 1.6156	* 1.3498	* 1.6095	* 1.3089	* 1.5762	* 1.3167	* 1.3451	* 2.4894
12	* 1.4702	* 1.2081	* 1.4949	* 1.1743	* 1.2918	* 1.4866	* 0.9405	
	* 1.3479	* 1.5298	* 1.3258	* 1.5762	* 1.4356	* 1.3303	* 1.7650	
13	* 1.2577	* 1.2718	* 1.3012	* 1.5039	* 1.4865	* 0.9661	* 0.5402	
	* 1.4525	* 1.4423	* 1.4033	* 1.3168	* 1.3303	* 1.7909	* 3.0557	
14	* 1.4832	* 1.4861	* 1.4891	* 1.4679	* 0.9404	* 0.5400		
	* 1.3318	* 1.3296	* 1.3271	* 1.3450	* 1.7649	* 3.0560		
15	* 0.7880	* 0.7936	* 0.7644	* 0.6670	F-SUB-Q			
	* 2.0998	* 2.1080	* 2.1600	* 2.4896	M-SUB-Q			

AT 100% POWER, 465 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.6980	* 0.5965	* 0.5630	* 0.5923	* 0.6913	* 0.5992	* 0.6630	* 0.3810
	* 2.8096	* 3.0696	* 3.2763	* 3.0839	* 2.8245	* 3.0035	* 2.9342	* 4.2868
9	* 0.5965	* 0.6856	* 0.6034	* 0.6896	* 0.6112	* 0.6051	* 0.6633	* 0.3831
	* 3.0696	* 2.8582	* 3.0341	* 2.8336	* 2.9810	* 2.9862	* 2.9332	* 4.3150
10	* 0.5630	* 0.6036	* 0.5553	* 0.5935	* 0.7006	* 0.6154	* 0.6633	* 0.3720
	* 3.2763	* 3.0330	* 3.3193	* 3.0765	* 2.7865	* 2.9223	* 2.9331	* 4.3789
11	* 0.5923	* 0.6896	* 0.5936	* 0.6898	* 0.6043	* 0.6999	* 0.6458	* 0.3310
	* 3.0839	* 2.8335	* 3.0761	* 2.8321	* 3.0180	* 2.7864	* 3.0122	* 4.9525
12	* 0.6913	* 0.6111	* 0.7006	* 0.6043	* 0.6088	* 0.6617	* 0.4533	
	* 2.8245	* 2.9811	* 2.7865	* 3.0180	* 3.0002	* 2.9423	* 3.6104	
13	* 0.5992	* 0.6051	* 0.6154	* 0.6999	* 0.6617	* 0.4681	* 0.2728	
	* 3.0035	* 2.9861	* 2.9223	* 2.7865	* 2.9424	* 3.6444	* 5.9798	
14	* 0.6630	* 0.6633	* 0.6634	* 0.6458	* 0.4533	* 0.2728		
	* 2.9342	* 2.9332	* 2.9330	* 3.0121	* 3.6102	* 5.9800		
15	* 0.3810	* 0.3829	* 0.3722	* 0.3311	F-SUB-Q			
	* 4.2868	* 4.3135	* 4.3811	* 4.9539	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4285	* 0.4748	* 0.4991	* 0.5489	* 0.6365	* 0.5506	* 0.5550	* 0.3053
	* 3.5547	* 4.1245	* 4.0678	* 3.6688	* 3.1633	* 3.6721	* 3.6896	* 6.1076
9	* 0.4748	* 0.5708	* 0.5352	* 0.6183	* 0.5651	* 0.5344	* 0.5480	* 0.3031
	* 4.1245	* 3.6075	* 3.8085	* 3.2649	* 3.5611	* 3.7786	* 3.7357	* 6.1410
10	* 0.4991	* 0.5353	* 0.4873	* 0.5187	* 0.5888	* 0.5091	* 0.5109	* 0.2808
	* 4.0678	* 3.8078	* 4.2507	* 3.8940	* 3.4181	* 3.9432	* 3.9250	* 6.4846
11	* 0.5489	* 0.6184	* 0.5188	* 0.5381	* 0.4715	* 0.5016	* 0.4532	* 0.2292
	* 3.6688	* 3.2647	* 3.8933	* 3.7873	* 4.2937	* 3.9368	* 4.4092	* 7.8942
12	* 0.6365	* 0.5651	* 0.5889	* 0.4715	* 0.3662	* 0.3810	* 0.2920	
	* 3.1633	* 3.5609	* 3.4176	* 4.2933	* 4.4169	* 4.3349	* 5.8090	
13	* 0.5506	* 0.5345	* 0.5092	* 0.5017	* 0.3811	* 0.2440	* 0.1433	
	* 3.6721	* 3.7784	* 3.9427	* 3.9364	* 4.3348	* 5.4581	* 10.4955	
14	* 0.5550	* 0.5481	* 0.5110	* 0.4533	* 0.2921	* 0.1432		
	* 3.6896	* 3.7354	* 3.9242	* 4.4082	* 5.8074	* 10.4971		
15	* 0.3053	* 0.3031	* 0.2811	* 0.2294	* F-SUB-Q			
	* 6.1076	* 6.1398	* 6.4808	* 7.8918	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0103	* 1.0483	* 1.0862	* 1.1778	* 1.4983	* 1.2800	* 1.4066	* 0.7074
	* 1.5578	* 1.9274	* 1.9237	* 1.7619	* 1.3853	* 1.6266	* 1.4970	* 2.7165
9	* 1.0483	* 1.3744	* 1.2571	* 1.4666	* 1.2407	* 1.2510	* 1.3903	* 0.7010
	* 1.9274	* 1.5336	* 1.6646	* 1.4168	* 1.6721	* 1.6632	* 1.5009	* 2.7094
10	* 1.0862	* 1.2572	* 1.0651	* 1.1070	* 1.3891	* 1.1869	* 1.3066	* 0.6487
	* 1.9237	* 1.6645	* 1.9884	* 1.8786	* 1.4928	* 1.7455	* 1.5801	* 2.8855
11	* 1.1778	* 1.4667	* 1.1072	* 1.3232	* 0.9954	* 1.2002	* 1.1399	* 0.5223
	* 1.7619	* 1.4167	* 1.8782	* 1.5791	* 2.0491	* 1.6796	* 1.8091	* 3.5743
12	* 1.4983	* 1.2408	* 1.3893	* 0.9955	* 0.8514	* 0.9569	* 0.6842	
	* 1.3853	* 1.6720	* 1.4926	* 2.0490	* 1.8975	* 1.7339	* 2.5355	
13	* 1.2800	* 1.2511	* 1.1871	* 1.2004	* 0.9570	* 0.5873	* 0.3240	
	* 1.6266	* 1.6631	* 1.7452	* 1.6795	* 1.7339	* 2.3111	* 4.7535	
14	* 1.4066	* 1.3904	* 1.3068	* 1.1402	* 0.6843	* 0.3239		
	* 1.4970	* 1.5008	* 1.5798	* 1.8087	* 2.5348	* 4.7544		
15	* 0.7074	* 0.7008	* 0.6495	* 0.5227	* F-SUB-Q			
	* 2.7165	* 2.7091	* 2.8840	* 3.5729	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1071	1.2477	1.3094	1.3693	1.5347	1.5134	1.5322	0.8241
	1.6285	1.7124	1.6356	1.5528	1.3828	1.4047	1.3852	2.3459
9	1.2477	1.4186	1.4831	1.4853	1.4304	1.4936	1.5175	0.8127
	1.7124	1.5206	1.4445	1.4315	1.4836	1.4223	1.3976	2.3730
10	1.3094	1.4831	1.2909	1.2741	1.3898	1.4063	1.4504	0.7580
	1.6356	1.4446	1.6638	1.6725	1.5278	1.5063	1.4572	2.5222
11	1.3693	1.4853	1.2746	1.3657	1.1272	1.2102	1.2785	0.6154
	1.5528	1.4314	1.6720	1.5672	1.8156	1.7264	1.6540	3.1130
12	1.5347	1.4305	1.3900	1.1273	1.0015	1.0538	0.7859	
	1.3828	1.4835	1.5276	1.8155	1.6318	1.5804	2.2584	
13	1.5134	1.4937	1.4066	1.2104	1.0539	0.7007	0.3927	
	1.4047	1.4222	1.5060	1.7262	1.5804	1.9932	4.0348	
14	1.5322	1.5176	1.4507	1.2789	0.7860	0.3926		
	1.3852	1.3975	1.4570	1.6536	2.2578	4.0356		
15	0.8241	0.8126	0.7592	0.6159	F-SUB-Q			
	2.3459	2.3727	2.5198	3.1117	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2327	1.3645	1.4295	1.4704	1.6750	1.6457	1.6937	0.8634
	1.5464	1.6423	1.5461	1.4890	1.3017	1.3215	1.2817	2.2891
9	1.3645	1.5663	1.6263	1.6212	1.5449	1.6314	1.6782	0.8495
	1.6423	1.4230	1.3578	1.3504	1.4123	1.3333	1.2941	2.3221
10	1.4295	1.6262	1.4112	1.3744	1.5208	1.5387	1.6040	0.7934
	1.5461	1.3579	1.5680	1.6026	1.4391	1.4174	1.3544	2.4764
11	1.4704	1.6213	1.3750	1.5032	1.2022	1.3233	1.4085	0.6478
	1.4890	1.3503	1.6019	1.4714	1.7400	1.6256	1.5535	3.0555
12	1.6750	1.5450	1.5210	1.2023	1.0893	1.1709	0.8310	
	1.3017	1.4122	1.4389	1.7400	1.5401	1.4740	2.2199	
13	1.6457	1.6315	1.5391	1.3236	1.1710	0.7658	0.4201	
	1.3215	1.3332	1.4171	1.6255	1.4740	1.9157	3.9507	
14	1.6937	1.6784	1.6044	1.4089	0.8311	0.4200		
	1.2817	1.2940	1.3541	1.5531	2.2193	3.9515		
15	0.8634	0.8492	0.7949	0.6484	F-SUB-Q			
	2.2891	2.3222	2.4734	3.0539	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values range from approximately 0.67 to 3.06. Includes F-SUB-Q and M-SUB-Q values at the bottom of the table.

AT 75% POWER, 4 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values range from approximately 0.47 to 3.10. Includes F-SUB-Q and M-SUB-Q values at the bottom of the table.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6156	1.5371	1.5457	1.5707	1.8258	1.7761	1.8615	0.9102
	1.5843	1.7082	1.6345	1.5701	1.3340	1.3594	1.2938	2.4096
9	1.5371	1.7656	1.7746	1.7666	1.6488	1.7627	1.8477	0.9000
	1.7082	1.4668	1.4180	1.3954	1.4834	1.3741	1.3071	2.4397
10	1.5457	1.7745	1.5230	1.4782	1.6679	1.6852	1.7942	0.8480
	1.6345	1.4180	1.6625	1.7004	1.4891	1.4638	1.3656	2.6001
11	1.5707	1.7667	1.4791	1.6686	1.3665	1.5160	1.6098	0.7038
	1.5701	1.3954	1.6994	1.5376	1.8358	1.6637	1.5718	3.2184
12	1.8258	1.6489	1.6682	1.3667	1.4494	1.5665	0.9774	
	1.3340	1.4833	1.4889	1.8359	1.6032	1.5012	2.3119	
13	1.7761	1.7629	1.6856	1.5162	1.5665	1.0575	0.5062	
	1.3594	1.3739	1.4635	1.6637	1.5012	2.0125	4.2460	
14	1.8615	1.8478	1.7946	1.6103	0.9775	0.5061		
	1.2938	1.3070	1.3652	1.5713	2.3113	4.2468		
15	0.9102	0.8995	0.8497	0.7045	F-SUB-Q			
	2.4096	2.4398	2.5968	3.2166	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6861	1.5730	1.5654	1.5860	1.8486	1.7976	1.8890	0.9151
	1.6330	1.7685	1.7160	1.6457	1.3899	1.4131	1.3406	2.5181
9	1.5730	1.8017	1.8006	1.7901	1.6654	1.7856	1.8763	0.9063
	1.7685	1.5344	1.4848	1.4572	1.5512	1.4287	1.3546	2.5489
10	1.5654	1.8007	1.5419	1.4965	1.6957	1.7149	1.8311	0.8559
	1.7160	1.4847	1.7468	1.7856	1.5526	1.5229	1.4149	2.7178
11	1.5860	1.7902	1.4974	1.7047	1.4089	1.5641	1.6538	0.7139
	1.6457	1.4572	1.7845	1.5943	1.8872	1.7029	1.6175	3.3690
12	1.8486	1.6655	1.6960	1.4090	1.5550	1.6702	1.0126	
	1.3899	1.5511	1.5524	1.8872	1.6475	1.5374	2.3726	
13	1.7976	1.7858	1.7153	1.5643	1.6703	1.1288	0.5282	
	1.4131	1.4285	1.5225	1.7028	1.5373	2.0802	4.3997	
14	1.8890	1.8764	1.8315	1.6542	1.0127	0.5281		
	1.3406	1.3545	1.4146	1.6171	2.3720	4.4005		
15	0.9151	0.9058	0.8577	0.7147	F-SUB-Q			
	2.5181	2.5491	2.7143	3.3671	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7255	* 1.5957	* 1.5833	* 1.5989	* 1.8706	* 1.8172	* 1.9157	* 0.9166
	* 1.7026	* 1.8378	* 1.8163	* 1.7393	* 1.4592	* 1.4815	* 1.4004	* 2.6607
9	* 1.5957	* 1.8312	* 1.8229	* 1.8129	* 1.6801	* 1.8062	* 1.9037	* 0.9089
	* 1.8378	* 1.5936	* 1.5672	* 1.5326	* 1.6352	* 1.4980	* 1.4151	* 2.6924
10	* 1.5833	* 1.8231	* 1.5572	* 1.5111	* 1.7218	* 1.7405	* 1.8645	* 0.8592
	* 1.8163	* 1.5671	* 1.8500	* 1.8904	* 1.6296	* 1.5973	* 1.4778	* 2.8739
11	* 1.5989	* 1.8130	* 1.5122	* 1.7367	* 1.4372	* 1.6020	* 1.6910	* 0.7189
	* 1.7393	* 1.5326	* 1.8891	* 1.6541	* 1.9661	* 1.7617	* 1.6617	* 3.5529
12	* 1.8706	* 1.6802	* 1.7221	* 1.4374	* 1.6124	* 1.7344	* 1.0316	
	* 1.4592	* 1.6351	* 1.6293	* 1.9662	* 1.7126	* 1.5898	* 2.4795	
13	* 1.8172	* 1.8064	* 1.7409	* 1.6022	* 1.7345	* 1.1648	* 0.5404	
	* 1.4815	* 1.4978	* 1.5969	* 1.7616	* 1.5897	* 2.1733	* 4.6085	
14	* 1.9157	* 1.9039	* 1.8650	* 1.6915	* 1.0317	* 0.5403		
	* 1.4004	* 1.4150	* 1.4774	* 1.6613	* 2.4788	* 4.6094		
15	* 0.9166	* 0.9084	* 0.8609	* 0.7196	* F-SUB-Q			
	* 2.6607	* 2.6929	* 2.8700	* 3.5510	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7097	* 1.5837	* 1.5704	* 1.5833	* 1.8505	* 1.8022	* 1.8959	* 0.9178
	* 1.8092	* 1.9508	* 1.9623	* 1.8800	* 1.5750	* 1.5918	* 1.5071	* 2.8270
9	* 1.5837	* 1.8148	* 1.8071	* 1.7919	* 1.6641	* 1.7919	* 1.8847	* 0.9107
	* 1.9508	* 1.6960	* 1.6950	* 1.6612	* 1.7630	* 1.6099	* 1.5230	* 2.8543
10	* 1.5704	* 1.8075	* 1.5432	* 1.4994	* 1.7030	* 1.7306	* 1.8522	* 0.8668
	* 1.9623	* 1.6948	* 1.9891	* 2.0351	* 1.7619	* 1.7161	* 1.5880	* 3.0355
11	* 1.5833	* 1.7921	* 1.5004	* 1.7219	* 1.4326	* 1.5924	* 1.6838	* 0.7278
	* 1.8800	* 1.6611	* 2.0337	* 1.7526	* 2.0932	* 1.8672	* 1.7524	* 3.6873
12	* 1.8505	* 1.6642	* 1.7033	* 1.4326	* 1.6184	* 1.7387	* 1.0502	
	* 1.5750	* 1.7630	* 1.7616	* 2.0932	* 1.8253	* 1.6952	* 2.5871	
13	* 1.8022	* 1.7922	* 1.7310	* 1.5926	* 1.7388	* 1.1860	* 0.5508	
	* 1.5918	* 1.6096	* 1.7157	* 1.8667	* 1.6951	* 2.2873	* 4.8327	
14	* 1.8959	* 1.8849	* 1.8526	* 1.6843	* 1.0503	* 0.5507		
	* 1.5071	* 1.5228	* 1.5876	* 1.7520	* 2.5864	* 4.8337		
15	* 0.9178	* 0.9103	* 0.8685	* 0.7286	* F-SUB-Q			
	* 2.8270	* 2.8546	* 3.0318	* 3.6854	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7346	1.5943	1.5807	1.5930	1.8734	1.8215	1.9266	0.9103
	1.8874	2.0528	2.0655	2.0050	1.6662	1.6841	1.5850	3.0411
9	1.5943	1.8372	1.8247	1.8148	1.6764	1.8118	1.9158	0.9043
	2.0528	1.7747	1.7785	1.7569	1.8763	1.7027	1.6013	3.0734
10	1.5807	1.8251	1.5525	1.5074	1.7292	1.7526	1.8852	0.8578
	2.0655	1.7782	2.0946	2.1426	1.8353	1.7900	1.6558	3.2741
11	1.5930	1.8149	1.5085	1.7471	1.4483	1.6215	1.7157	0.7197
	2.0050	1.7569	2.1410	1.8241	2.1847	1.9330	1.8138	3.9332
12	1.8734	1.6765	1.7294	1.4482	1.6463	1.7767	1.0447	
	1.6662	1.8762	1.8350	2.1847	1.8992	1.7542	2.7397	
13	1.8215	1.8121	1.7530	1.6218	1.7768	1.1871	0.5465	
	1.6841	1.7024	1.7896	1.9325	1.7542	2.4238	5.1485	
14	1.9266	1.9160	1.8856	1.7162	1.0448	0.5464		
	1.5850	1.6011	1.6554	1.8133	2.7390	5.1496		
15	0.9103	0.9038	0.8596	0.7204	F-SUB-Q			
	3.0411	3.0741	3.2697	3.9311	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7261	1.5828	1.5698	1.5823	1.8660	1.8149	1.9231	0.9031
	1.8922	2.0579	2.0718	2.0471	1.7368	1.7882	1.6869	3.2736
9	1.5828	1.8283	1.8153	1.8067	1.6664	1.8056	1.9126	0.8978
	2.0579	1.7805	1.7916	1.7941	1.9461	1.7993	1.6978	3.3053
10	1.5698	1.8157	1.5411	1.4970	1.7230	1.7487	1.8848	0.8526
	2.0718	1.7911	2.1098	2.1712	1.8885	1.8645	1.7291	3.4745
11	1.5823	1.8068	1.4982	1.7410	1.4424	1.6188	1.7163	0.7155
	2.0471	1.7940	2.1696	1.8744	2.2753	2.0216	1.9051	4.1656
12	1.8660	1.6664	1.7233	1.4424	1.6456	1.7793	1.0419	
	1.7368	1.9461	1.8882	2.2750	2.0083	1.8538	2.9053	
13	1.8149	1.8059	1.7492	1.6191	1.7794	1.1846	0.5434	
	1.7882	1.7990	1.8640	2.0212	1.8537	2.5688	5.4693	
14	1.9231	1.9128	1.8852	1.7167	1.0420	0.5433		
	1.6869	1.6977	1.7287	1.9046	2.9044	5.4704		
15	0.9031	0.8973	0.8543	0.7162	F-SUB-Q			
	3.2736	3.3061	3.4698	4.1633	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6890	1.5525	1.5404	1.5531	1.8314	1.7860	1.8898	0.8951
	1.8984	2.0589	2.0715	2.0452	1.7349	1.7811	1.6824	3.2426
9	1.5525	1.7922	1.7822	1.7696	1.6363	1.7769	1.8797	0.8902
	2.0589	1.7830	1.7908	1.7976	1.9436	1.7938	1.6944	3.2680
10	1.5404	1.7827	1.5118	1.4701	1.6890	1.7225	1.8555	0.8496
	2.0715	1.7903	2.1104	2.1699	1.8921	1.8600	1.7259	3.4237
11	1.5531	1.7699	1.4713	1.7091	1.4184	1.5890	1.6897	0.7140
	2.0452	1.7976	2.1681	1.8799	2.2769	2.0246	1.9034	4.1015
12	1.8314	1.6364	1.6892	1.4184	1.6213	1.7522	1.0398	
	1.7349	1.9436	1.8918	2.2766	2.0139	1.8599	2.8669	
13	1.7860	1.7772	1.7229	1.5892	1.7523	1.1788	0.5413	
	1.7811	1.7935	1.8595	2.0241	1.8598	2.5610	5.4783	
14	1.8898	1.8799	1.8559	1.6902	1.0399	0.5411		
	1.6824	1.6943	1.7255	1.9029	2.8661	5.4794		
15	0.8951	0.8897	0.8513	0.7147	F-SUB-Q			
	3.2426	3.2688	3.4194	4.0992	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6911	1.5436	1.5322	1.5455	1.8337	1.7865	1.9006	0.8790
	1.8224	1.9878	1.9986	1.9751	1.6732	1.7188	1.6138	3.1599
9	1.5436	1.7918	1.7787	1.7737	1.6306	1.7777	1.8908	0.8751
	1.9878	1.7152	1.7282	1.7245	1.8814	1.7353	1.6283	3.1765
10	1.5322	1.7792	1.5031	1.4606	1.6944	1.7248	1.8671	0.8322
	1.9986	1.7276	2.0353	2.0908	1.8152	1.7964	1.6592	3.3275
11	1.5455	1.7738	1.4619	1.7102	1.4130	1.5986	1.7000	0.6978
	1.9751	1.7244	2.0891	1.7993	2.1942	1.9384	1.8228	3.9849
12	1.8337	1.6306	1.6947	1.4130	1.6232	1.7620	1.0193	
	1.6732	1.8813	1.8149	2.1940	1.9450	1.7841	2.7922	
13	1.7865	1.7780	1.7252	1.5990	1.7621	1.1608	0.5284	
	1.7188	1.7350	1.7960	1.9379	1.7840	2.4920	5.3087	
14	1.9006	1.8910	1.8675	1.7004	1.0194	0.5282		
	1.6138	1.6282	1.6588	1.8224	2.7915	5.3099		
15	0.8790	0.8745	0.8339	0.6986	F-SUB-Q			
	3.1599	3.1774	3.3230	3.9827	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 10 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6709	* 1.5209	* 1.5102	* 1.5242	* 1.8143	* 1.7687	* 1.8866	* 0.8637
	* 1.6775	* 1.8361	* 1.8466	* 1.8275	* 1.5455	* 1.5929	* 1.4913	* 2.9377
9	* 1.5209	* 1.7702	* 1.7567	* 1.7547	* 1.6093	* 1.7601	* 1.8770	* 0.8602
	* 1.8361	* 1.5804	* 1.5945	* 1.5909	* 1.7407	* 1.6044	* 1.5025	* 2.9532
10	* 1.5102	* 1.7573	* 1.4809	* 1.4392	* 1.6771	* 1.7089	* 1.8549	* 0.8179
	* 1.8466	* 1.5940	* 1.8820	* 1.9338	* 1.6737	* 1.6547	* 1.5244	* 3.0961
11	* 1.5242	* 1.7548	* 1.4405	* 1.6909	* 1.3945	* 1.5874	* 1.6886	* 0.6855
	* 1.8275	* 1.5908	* 1.9321	* 1.6566	* 2.0227	* 1.7788	* 1.6723	* 3.7035
12	* 1.8143	* 1.6093	* 1.6774	* 1.3945	* 1.6087	* 1.7491	* 1.0028	
	* 1.5455	* 1.7407	* 1.6734	* 2.0225	* 1.7885	* 1.6367	* 2.5831	
13	* 1.7687	* 1.7604	* 1.7093	* 1.5878	* 1.7492	* 1.1434	* 0.5177	
	* 1.5929	* 1.6041	* 1.6543	* 1.7784	* 1.6367	* 2.3043	* 4.9339	
14	* 1.8866	* 1.8772	* 1.8554	* 1.6891	* 1.0028	* 0.5176		
	* 1.4913	* 1.5023	* 1.5241	* 1.6719	* 2.5825	* 4.9350		
15	* 0.8637	* 0.8596	* 0.8196	* 0.6863	* F-SUB-Q			
	* 2.9377	* 2.9542	* 3.0918	* 3.7014	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 9 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6400	* 1.4912	* 1.4815	* 1.4956	* 1.7843	* 1.7406	* 1.8585	* 0.8490
	* 1.5697	* 1.7204	* 1.7303	* 1.7090	* 1.4413	* 1.4861	* 1.3902	* 2.7483
9	* 1.4912	* 1.7388	* 1.7257	* 1.7238	* 1.5800	* 1.7321	* 1.8491	* 0.8460
	* 1.7204	* 1.4782	* 1.4922	* 1.4870	* 1.6268	* 1.4958	* 1.3995	* 2.7586
10	* 1.4815	* 1.7263	* 1.4522	* 1.4119	* 1.6485	* 1.6826	* 1.8290	* 0.8059
	* 1.7303	* 1.4916	* 1.7646	* 1.8125	* 1.5671	* 1.5464	* 1.4226	* 2.8943
11	* 1.4956	* 1.7238	* 1.4133	* 1.6624	* 1.3693	* 1.5640	* 1.6644	* 0.6750
	* 1.7090	* 1.4869	* 1.8109	* 1.5495	* 1.8922	* 1.6598	* 1.5597	* 3.4637
12	* 1.7843	* 1.5801	* 1.6488	* 1.3692	* 1.5845	* 1.7235	* 0.9889	
	* 1.4413	* 1.6268	* 1.5668	* 1.8920	* 1.6650	* 1.5216	* 2.4048	
13	* 1.7406	* 1.7324	* 1.6830	* 1.5644	* 1.7236	* 1.1262	* 0.5091	
	* 1.4861	* 1.4955	* 1.5460	* 1.6594	* 1.5215	* 2.1428	* 4.6035	
14	* 1.8585	* 1.8493	* 1.8294	* 1.6648	* 0.9890	* 0.5089		
	* 1.3902	* 1.3993	* 1.4223	* 1.5593	* 2.4042	* 4.6046		
15	* 0.8490	* 0.8455	* 0.8076	* 0.6758	* F-SUB-Q			
	* 2.7483	* 2.7595	* 2.8904	* 3.4617	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5941	* 1.4530	* 1.4440	* 1.4583	* 1.7392	* 1.7000	* 1.8124	* 0.8354
	* 1.6135	* 1.7636	* 1.7708	* 1.7480	* 1.4763	* 1.5200	* 1.4241	* 2.7952
9	* 1.4530	* 1.6931	* 1.6825	* 1.6768	* 1.5408	* 1.6915	* 1.8034	* 0.8326
	* 1.7636	* 1.5164	* 1.5250	* 1.5243	* 1.6646	* 1.5289	* 1.4328	* 2.8028
10	* 1.4440	* 1.6832	* 1.4149	* 1.3773	* 1.6041	* 1.6438	* 1.7859	* 0.7965
	* 1.7708	* 1.5244	* 1.8061	* 1.8537	* 1.6077	* 1.5808	* 1.4541	* 2.9224
11	* 1.4583	* 1.6769	* 1.3786	* 1.6198	* 1.3358	* 1.5257	* 1.6248	* 0.6681
	* 1.7480	* 1.5242	* 1.8520	* 1.5937	* 1.9406	* 1.7034	* 1.5993	* 3.5066
12	* 1.7392	* 1.5408	* 1.6044	* 1.3357	* 1.5484	* 1.6820	* 0.9785	
	* 1.4763	* 1.6646	* 1.6074	* 1.9407	* 1.6998	* 1.5556	* 2.4309	
13	* 1.7000	* 1.6918	* 1.6442	* 1.5261	* 1.6821	* 1.1105	* 0.5024	
	* 1.5200	* 1.5286	* 1.5805	* 1.7030	* 1.5555	* 2.1680	* 4.6663	
14	* 1.8124	* 1.8037	* 1.7864	* 1.6253	* 0.9786	* 0.5023		
	* 1.4241	* 1.4326	* 1.4537	* 1.5989	* 2.4304	* 4.6674		
15	* 0.8354	* 0.8321	* 0.7981	* 0.6688	* F-SUB-Q			
	* 2.7952	* 2.8037	* 2.9187	* 3.5047	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5890	* 1.4374	* 1.4291	* 1.4436	* 1.7323	* 1.6899	* 1.8122	* 0.8139
	* 1.5011	* 1.6553	* 1.6629	* 1.6459	* 1.3822	* 1.4264	* 1.3287	* 2.6809
9	* 1.4374	* 1.6848	* 1.6709	* 1.6733	* 1.5268	* 1.6817	* 1.8035	* 0.8118
	* 1.6553	* 1.4150	* 1.4284	* 1.4235	* 1.5660	* 1.4337	* 1.3362	* 2.6846
10	* 1.4291	* 1.6716	* 1.3999	* 1.3613	* 1.6010	* 1.6351	* 1.7853	* 0.7732
	* 1.6629	* 1.4278	* 1.6978	* 1.7445	* 1.4991	* 1.4778	* 1.3528	* 2.8073
11	* 1.4436	* 1.6734	* 1.3626	* 1.6126	* 1.3227	* 1.5250	* 1.6237	* 0.6467
	* 1.6459	* 1.4234	* 1.7428	* 1.4847	* 1.8234	* 1.5849	* 1.4881	* 3.3689
12	* 1.7323	* 1.5268	* 1.6013	* 1.3226	* 1.5415	* 1.6803	* 0.9496	
	* 1.3822	* 1.5659	* 1.4988	* 1.8235	* 1.5856	* 1.4495	* 2.3366	
13	* 1.6899	* 1.6820	* 1.6355	* 1.5254	* 1.6804	* 1.0841	* 0.4860	
	* 1.4264	* 1.4334	* 1.4775	* 1.5845	* 1.4494	* 2.0686	* 4.5037	
14	* 1.8122	* 1.8037	* 1.7858	* 1.6242	* 0.9497	* 0.4858		
	* 1.3287	* 1.3360	* 1.3524	* 1.4877	* 2.3360	* 4.5048		
15	* 0.8139	* 0.8112	* 0.7749	* 0.6474	* F-SUB-Q			
	* 2.6809	* 2.6857	* 2.8033	* 3.3669	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5569	* 1.4073	* 1.3998	* 1.4140	* 1.6993	* 1.6589	* 1.7798	* 0.7953
	* 1.4365	* 1.5880	* 1.5959	* 1.5820	* 1.3265	* 1.3680	* 1.2737	* 2.5880
9	* 1.4073	* 1.6511	* 1.6389	* 1.6410	* 1.4965	* 1.6509	* 1.7715	* 0.7934
	* 1.5880	* 1.3562	* 1.3691	* 1.3662	* 1.5040	* 1.3745	* 1.2803	* 2.5897
10	* 1.3998	* 1.6396	* 1.3712	* 1.3332	* 1.5709	* 1.6055	* 1.7539	* 0.7560
	* 1.5959	* 1.3685	* 1.6298	* 1.6749	* 1.4366	* 1.4142	* 1.2938	* 2.7043
11	* 1.4140	* 1.6411	* 1.3346	* 1.5818	* 1.2965	* 1.4970	* 1.5940	* 0.6317
	* 1.5820	* 1.3661	* 1.6732	* 1.4205	* 1.7396	* 1.5144	* 1.4216	* 3.2424
12	* 1.6993	* 1.4965	* 1.5712	* 1.2964	* 1.5146	* 1.6505	* 0.9287	
	* 1.3265	* 1.5040	* 1.4363	* 1.7397	* 1.5053	* 1.3787	* 2.2371	
13	* 1.6589	* 1.6512	* 1.6058	* 1.4974	* 1.6506	* 1.0617	* 0.4745	
	* 1.3680	* 1.3742	* 1.4139	* 1.5140	* 1.3786	* 1.9742	* 4.3196	
14	* 1.7798	* 1.7717	* 1.7543	* 1.5944	* 0.9288	* 0.4744		
	* 1.2737	* 1.2801	* 1.2935	* 1.4212	* 2.2365	* 4.3207		
15	* 0.7953	* 0.7928	* 0.7578	* 0.6324	* F-SUB-Q			
	* 2.5880	* 2.5908	* 2.7004	* 3.2403	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4928	* 1.3601	* 1.3533	* 1.3667	* 1.6342	* 1.6031	* 1.7084	* 0.7792
	* 1.4222	* 1.5606	* 1.5685	* 1.5561	* 1.3110	* 1.3452	* 1.2610	* 2.5156
9	* 1.3601	* 1.5861	* 1.5825	* 1.5741	* 1.4474	* 1.5953	* 1.7005	* 0.7771
	* 1.5606	* 1.3406	* 1.3469	* 1.3538	* 1.4780	* 1.3512	* 1.2671	* 2.5173
10	* 1.3533	* 1.5833	* 1.3262	* 1.2909	* 1.5095	* 1.5515	* 1.6849	* 0.7449
	* 1.5685	* 1.3462	* 1.6013	* 1.6437	* 1.4202	* 1.3888	* 1.2779	* 2.6113
11	* 1.3667	* 1.5742	* 1.2922	* 1.5233	* 1.2559	* 1.4366	* 1.5295	* 0.6231
	* 1.5561	* 1.3537	* 1.6421	* 1.4020	* 1.7009	* 1.4964	* 1.4042	* 3.1238
12	* 1.6342	* 1.4474	* 1.5097	* 1.2558	* 1.4640	* 1.5868	* 0.9153	
	* 1.3110	* 1.4780	* 1.4200	* 1.7010	* 1.4704	* 1.3551	* 2.1504	
13	* 1.6031	* 1.5957	* 1.5519	* 1.4369	* 1.5869	* 1.0425	* 0.4684	
	* 1.3452	* 1.3509	* 1.3885	* 1.4960	* 1.3550	* 1.9001	* 4.1449	
14	* 1.7084	* 1.7008	* 1.6853	* 1.5300	* 0.9154	* 0.4683		
	* 1.2610	* 1.2669	* 1.2776	* 1.4038	* 2.1499	* 4.1459		
15	* 0.7792	* 0.7765	* 0.7464	* 0.6238	* F-SUB-Q			
	* 2.5156	* 2.5182	* 2.6079	* 3.1219	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4637	* 1.3321	* 1.3240	* 1.3397	* 1.5965	* 1.5707	* 1.6702	* 0.7533
	* 1.3911	* 1.5286	* 1.5382	* 1.5234	* 1.2873	* 1.3165	* 1.2371	* 2.5007
9	* 1.3321	* 1.5460	* 1.5495	* 1.5434	* 1.4206	* 1.5638	* 1.6626	* 0.7512
	* 1.5286	* 1.3191	* 1.3192	* 1.3247	* 1.4447	* 1.3216	* 1.2426	* 2.5020
10	* 1.3240	* 1.5503	* 1.2984	* 1.2647	* 1.4835	* 1.5230	* 1.6465	* 0.7171
	* 1.5382	* 1.3185	* 1.5695	* 1.6105	* 1.3858	* 1.3557	* 1.2527	* 2.6054
11	* 1.3397	* 1.5435	* 1.2661	* 1.4932	* 1.2355	* 1.4070	* 1.4948	* 0.5976
	* 1.5234	* 1.3247	* 1.6088	* 1.3691	* 1.6559	* 1.4636	* 1.3762	* 3.1274
12	* 1.5965	* 1.4206	* 1.4838	* 1.2354	* 1.4364	* 1.5533	* 0.8804	
	* 1.2873	* 1.4447	* 1.3856	* 1.6560	* 1.4327	* 1.3237	* 2.1420	
13	* 1.5707	* 1.5641	* 1.5233	* 1.4073	* 1.5534	* 1.0064	* 0.4501	
	* 1.3165	* 1.3214	* 1.3554	* 1.4633	* 1.3237	* 1.8836	* 4.1358	
14	* 1.6702	* 1.6629	* 1.6469	* 1.4952	* 0.8804	* 0.4500		
	* 1.2371	* 1.2425	* 1.2524	* 1.3758	* 2.1415	* 4.1369		
15	* 0.7533	* 0.7507	* 0.7186	* 0.5982	* F-SUB-Q			
	* 2.5007	* 2.5030	* 2.6018	* 3.1254	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.3946	* 1.2716	* 1.2442	* 1.2798	* 1.5099	* 1.4792	* 1.5637	* 0.7252
	* 1.3601	* 1.5485	* 1.5850	* 1.5436	* 1.3125	* 1.3524	* 1.2783	* 2.5189
9	* 1.2716	* 1.4609	* 1.4569	* 1.4626	* 1.3510	* 1.4721	* 1.5562	* 0.7232
	* 1.5485	* 1.3506	* 1.3577	* 1.3369	* 1.4658	* 1.3580	* 1.2843	* 2.5204
10	* 1.2442	* 1.4576	* 1.2184	* 1.2115	* 1.4035	* 1.4398	* 1.5451	* 0.6881
	* 1.5850	* 1.3571	* 1.6196	* 1.6297	* 1.3793	* 1.3867	* 1.2907	* 2.6329
11	* 1.2798	* 1.4627	* 1.2123	* 1.4281	* 1.1860	* 1.3432	* 1.4150	* 0.5699
	* 1.5436	* 1.3367	* 1.6287	* 1.3713	* 1.6670	* 1.4272	* 1.4053	* 3.1797
12	* 1.5099	* 1.3510	* 1.4038	* 1.1861	* 1.3582	* 1.4616	* 0.8495	
	* 1.3125	* 1.4658	* 1.3791	* 1.6669	* 1.4638	* 1.3594	* 2.1486	
13	* 1.4792	* 1.4724	* 1.4401	* 1.3434	* 1.4617	* 0.9511	* 0.4262	
	* 1.3524	* 1.3577	* 1.3864	* 1.4270	* 1.3593	* 1.9282	* 4.2356	
14	* 1.5637	* 1.5563	* 1.5454	* 1.4153	* 0.8495	* 0.4260		
	* 1.2783	* 1.2841	* 1.2904	* 1.4050	* 2.1481	* 4.2367		
15	* 0.7252	* 0.7226	* 0.6894	* 0.5705	* F-SUB-Q			
	* 2.5189	* 2.5213	* 2.6296	* 3.1777	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4108	1.0978	1.0237	1.0963	1.4736	1.2268	1.4318	0.6314
	1.3601	1.7487	1.8797	1.7576	1.3125	1.5890	1.3596	2.8286
9	1.0978	1.4197	1.2230	1.4418	1.1663	1.2199	1.4242	0.6339
	1.7487	1.3539	1.5765	1.3369	1.6559	1.5976	1.3666	2.8115
10	1.0237	1.2236	0.9986	1.0511	1.4023	1.2007	1.3895	0.5995
	1.8797	1.5757	1.9286	1.8315	1.3793	1.6206	1.3991	2.9542
11	1.0963	1.4420	1.0517	1.4064	1.0366	1.3561	1.2688	0.4921
	1.7576	1.3367	1.8304	1.3713	1.8624	1.4272	1.5278	3.6021
12	1.4736	1.1662	1.4026	1.0368	1.1397	1.3020	0.7575	
	1.3125	1.6560	1.3791	1.8622	1.7005	1.4874	2.3532	
13	1.2268	1.2202	1.2009	1.3563	1.3021	0.8060	0.3597	
	1.5890	1.5973	1.6203	1.4270	1.4873	2.2222	4.9122	
14	1.4318	1.4244	1.3898	1.2691	0.7576	0.3596		
	1.3596	1.3665	1.3987	1.5275	2.3527	4.9134		
15	0.6314	0.6335	0.6002	0.4926	F-SUB-Q			
	2.8286	2.8122	2.9530	3.6002	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.5578	0.4746	0.4432	0.4821	0.5730	0.4837	0.5157	0.2659
	3.3668	3.9633	4.2568	3.9189	3.3011	3.9265	3.6957	6.5944
9	0.4746	0.5508	0.4838	0.5572	0.4979	0.4769	0.5126	0.2659
	3.9633	3.4159	3.8996	3.3864	3.8006	3.9953	3.7173	6.5795
10	0.4432	0.4841	0.4324	0.4661	0.5497	0.4725	0.4971	0.2542
	4.2568	3.8978	4.3637	4.0521	3.4388	4.0157	3.8294	6.8398
11	0.4821	0.5573	0.4662	0.5313	0.4592	0.5236	0.4575	0.2130
	3.9189	3.3859	4.0506	3.5531	4.1235	3.6209	4.1526	8.1722
12	0.5730	0.4979	0.5498	0.4593	0.4442	0.4700	0.3167	
	3.3011	3.8006	3.4381	4.1230	4.2709	4.0360	5.5213	
13	0.4837	0.4770	0.4725	0.5237	0.4701	0.3276	0.1587	
	3.9265	3.9946	4.0150	3.6204	4.0358	5.3586	10.9413	
14	0.5157	0.5127	0.4972	0.4576	0.3167	0.1587		
	3.6957	3.7169	3.8286	4.1517	5.5201	10.9431		
15	0.2659	0.2658	0.2543	0.2132	F-SUB-Q			
	6.5944	6.5796	6.8402	8.1695	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.3608	* 0.3980	* 0.4225	* 0.4697	* 0.5482	* 0.4736	* 0.4855	* 0.2681
	* 4.0541	* 4.7171	* 4.6969	* 4.1939	* 3.5932	* 4.1784	* 4.1318	* 6.8048
9	* 0.3980	* 0.4811	* 0.4542	* 0.5303	* 0.4860	* 0.4638	* 0.4799	* 0.2667
	* 4.7171	* 4.1856	* 4.3860	* 3.7208	* 4.0509	* 4.2592	* 4.1787	* 6.8284
10	* 0.4225	* 0.4543	* 0.4127	* 0.4438	* 0.5099	* 0.4437	* 0.4506	* 0.2482
	* 4.6969	* 4.3852	* 4.9030	* 4.4537	* 3.8642	* 4.4304	* 4.3580	* 7.1689
11	* 0.4697	* 0.5303	* 0.4439	* 0.4661	* 0.4073	* 0.4422	* 0.4030	* 0.2044
	* 4.1939	* 3.7206	* 4.4529	* 4.2651	* 4.8222	* 4.3628	* 4.8631	* 8.6630
12	* 0.5482	* 0.4860	* 0.5100	* 0.4074	* 0.3210	* 0.3397	* 0.2599	
	* 3.5932	* 4.0507	* 3.8637	* 4.8219	* 4.8951	* 4.7699	* 6.3856	
13	* 0.4736	* 0.4638	* 0.4438	* 0.4423	* 0.3398	* 0.2177	* 0.1286	
	* 4.1784	* 4.2589	* 4.4298	* 4.3623	* 4.7697	* 6.0061	* 11.4596	
14	* 0.4855	* 0.4800	* 0.4507	* 0.4031	* 0.2599	* 0.1286		
	* 4.1318	* 4.1783	* 4.3572	* 4.8621	* 6.3838	* 11.4612		
15	* 0.2681	* 0.2667	* 0.2485	* 0.2046				F-SUB-Q
	* 6.8048	* 6.8271	* 7.1647	* 8.6604				M-SUB-Q

AT 75% POWER, 50 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.8703	* 0.8978	* 0.9362	* 1.0309	* 1.3143	* 1.1283	* 1.2501	* 0.6352
	* 1.7426	* 2.1601	* 2.1833	* 1.9701	* 1.5463	* 1.8071	* 1.6491	* 2.9542
9	* 0.8978	* 1.1792	* 1.0880	* 1.2832	* 1.0900	* 1.1103	* 1.2371	* 0.6302
	* 2.1601	* 1.7488	* 1.8821	* 1.5851	* 1.8636	* 1.8382	* 1.6523	* 2.9442
10	* 0.9362	* 1.0880	* 0.9178	* 0.9734	* 1.2280	* 1.0567	* 1.1704	* 0.5856
	* 2.1833	* 1.8820	* 2.2561	* 2.0916	* 1.6538	* 1.9207	* 1.7293	* 3.1256
11	* 1.0309	* 1.2833	* 0.9737	* 1.1651	* 0.8828	* 1.0807	* 1.0311	* 0.4756
	* 1.9701	* 1.5851	* 2.0911	* 1.7554	* 2.2455	* 1.8278	* 1.9623	* 3.8436
12	* 1.3143	* 1.0900	* 1.2282	* 0.8829	* 0.7620	* 0.8710	* 0.6217	
	* 1.5463	* 1.8635	* 1.6536	* 2.2453	* 2.0692	* 1.8854	* 2.7371	
13	* 1.1283	* 1.1104	* 1.0569	* 1.0808	* 0.8711	* 0.5305	* 0.2967	
	* 1.8071	* 1.8381	* 1.9204	* 1.8276	* 1.8853	* 2.5202	* 5.1019	
14	* 1.2501	* 1.2371	* 1.1706	* 1.0314	* 0.6218	* 0.2966		
	* 1.6491	* 1.6522	* 1.7290	* 1.9619	* 2.7364	* 5.1028		
15	* 0.6352	* 0.6301	* 0.5863	* 0.4760				F-SUB-Q
	* 2.9542	* 2.9439	* 3.1241	* 3.8421				M-SUB-Q

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.9978	* 1.0970	* 1.1554	* 1.2454	* 1.4477	* 1.3762	* 1.4224	* 0.7674
	* 1.7010	* 1.8521	* 1.8155	* 1.6736	* 1.4377	* 1.5146	* 1.4638	* 2.4657
9	* 1.0970	* 1.3038	* 1.3223	* 1.3971	* 1.3083	* 1.3628	* 1.4032	* 0.7586
	* 1.8521	* 1.6212	* 1.5878	* 1.4930	* 1.5918	* 1.5267	* 1.4823	* 2.4879
10	* 1.1554	* 1.3223	* 1.1382	* 1.1663	* 1.3024	* 1.2966	* 1.3642	* 0.7095
	* 1.8155	* 1.5877	* 1.8482	* 1.7897	* 1.5991	* 1.6029	* 1.5196	* 2.6385
11	* 1.2454	* 1.3972	* 1.1666	* 1.2729	* 1.0514	* 1.1593	* 1.2102	* 0.5803
	* 1.6736	* 1.4929	* 1.7892	* 1.6486	* 1.9249	* 1.7742	* 1.7154	* 3.2350
12	* 1.4477	* 1.3083	* 1.3025	* 1.0516	* 0.9271	* 1.0103	* 0.7464	
	* 1.4377	* 1.5917	* 1.5989	* 1.9248	* 1.7388	* 1.6502	* 2.3400	
13	* 1.3762	* 1.3629	* 1.2969	* 1.1595	* 1.0104	* 0.6515	* 0.3693	
	* 1.5146	* 1.5266	* 1.6026	* 1.7740	* 1.6501	* 2.1187	* 4.2257	
14	* 1.4224	* 1.4033	* 1.3645	* 1.2105	* 0.7465	* 0.3693		
	* 1.4638	* 1.4822	* 1.5193	* 1.7149	* 2.3393	* 4.2265		
15	* 0.7674	* 0.7584	* 0.7105	* 0.5808	* F-SUB-Q			
	* 2.4657	* 2.4877	* 2.6366	* 3.2336	* M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1446	* 1.2265	* 1.2876	* 1.3785	* 1.6383	* 1.5403	* 1.6196	* 0.8293
	* 1.5712	* 1.7343	* 1.6832	* 1.5595	* 1.3074	* 1.3873	* 1.3175	* 2.3374
9	* 1.2265	* 1.4845	* 1.4832	* 1.5766	* 1.4482	* 1.5278	* 1.5979	* 0.8177
	* 1.7343	* 1.4731	* 1.4614	* 1.3646	* 1.4821	* 1.3986	* 1.3357	* 2.3666
10	* 1.2876	* 1.4832	* 1.2698	* 1.2861	* 1.4693	* 1.4557	* 1.5592	* 0.7659
	* 1.6832	* 1.4614	* 1.7099	* 1.6767	* 1.4633	* 1.4717	* 1.3692	* 2.5159
11	* 1.3785	* 1.5767	* 1.2865	* 1.4385	* 1.1599	* 1.3165	* 1.3800	* 0.6296
	* 1.5595	* 1.3645	* 1.6762	* 1.5092	* 1.8017	* 1.6266	* 1.5567	* 3.0833
12	* 1.6383	* 1.4482	* 1.4695	* 1.1601	* 1.0361	* 1.1605	* 0.8161	
	* 1.3074	* 1.4820	* 1.4631	* 1.8017	* 1.6030	* 1.4951	* 2.2278	
13	* 1.5403	* 1.5279	* 1.4561	* 1.3168	* 1.1606	* 0.7283	* 0.4046	
	* 1.3873	* 1.3985	* 1.4714	* 1.6264	* 1.4950	* 1.9913	* 4.0426	
14	* 1.6196	* 1.5980	* 1.5596	* 1.3803	* 0.8162	* 0.4045		
	* 1.3175	* 1.3356	* 1.3689	* 1.5563	* 2.2272	* 4.0433		
15	* 0.8293	* 0.8174	* 0.7673	* 0.6302	* F-SUB-Q			
	* 2.3374	* 2.3665	* 2.5129	* 3.0818	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2484	1.3050	1.3578	1.4527	1.7487	1.6289	1.7313	0.8716
	1.5329	1.7136	1.6600	1.5321	1.2669	1.3576	1.2749	2.3016
9	1.3050	1.5963	1.5718	1.6845	1.5271	1.6161	1.7087	0.8615
	1.7136	1.4327	1.4339	1.3233	1.4547	1.3697	1.2932	2.3258
10	1.3578	1.5718	1.3378	1.3583	1.5669	1.5459	1.6768	0.8086
	1.6600	1.4340	1.6916	1.6494	1.4231	1.4365	1.3194	2.4711
11	1.4527	1.6846	1.3588	1.5456	1.2368	1.4235	1.4944	0.6681
	1.5321	1.3233	1.6489	1.4696	1.7788	1.5774	1.4943	3.0151
12	1.7487	1.5272	1.5671	1.2369	1.1213	1.2818	0.8834	
	1.2669	1.4547	1.4229	1.7788	1.5736	1.4496	2.1792	
13	1.6289	1.6162	1.5463	1.4239	1.2819	0.8028	0.4373	
	1.3576	1.3696	1.4362	1.5770	1.4495	1.9573	4.0105	
14	1.7313	1.7088	1.6772	1.4948	0.8835	0.4372		
	1.2749	1.2931	1.3191	1.4939	2.1786	4.0113		
15	0.8716	0.8612	0.8102	0.6687	F-SUB-Q			
	2.3016	2.3258	2.4681	3.0136	M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3866	1.3749	1.4063	1.5017	1.8173	1.6858	1.8014	0.9031
	1.5391	1.7308	1.6802	1.5454	1.2664	1.3577	1.2684	2.3008
9	1.3749	1.6763	1.6317	1.7537	1.5800	1.6738	1.7791	0.8946
	1.7308	1.4385	1.4458	1.3259	1.4647	1.3697	1.2863	2.3201
10	1.4063	1.6317	1.3845	1.4104	1.6330	1.6109	1.7575	0.8434
	1.6802	1.4458	1.7120	1.6638	1.4277	1.4389	1.3111	2.4613
11	1.5017	1.7538	1.4109	1.6276	1.3079	1.5077	1.5828	0.7016
	1.5454	1.3258	1.6632	1.4702	1.7908	1.5720	1.4863	3.0106
12	1.8173	1.5800	1.6332	1.3081	1.2433	1.4134	0.9513	
	1.2664	1.4646	1.4274	1.7907	1.5840	1.4498	2.1718	
13	1.6858	1.6740	1.6113	1.5080	1.4135	0.9096	0.4748	
	1.3577	1.3695	1.4385	1.5717	1.4497	1.9686	4.0491	
14	1.8014	1.7793	1.7579	1.5833	0.9514	0.4747		
	1.2684	1.2862	1.3108	1.4859	2.1711	4.0499		
15	0.9031	0.8943	0.8450	0.7023	F-SUB-Q			
	2.3008	2.3201	2.4584	3.0090	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5779	1.4522	1.4547	1.5491	1.8865	1.7428	1.8738	0.9239
	1.5447	1.7467	1.7221	1.5784	1.2808	1.3739	1.2746	2.3492
9	1.4522	1.7609	1.6922	1.8236	1.6305	1.7321	1.8526	0.9152
	1.7467	1.4620	1.4758	1.3442	1.4938	1.3865	1.2932	2.3706
10	1.4547	1.6923	1.4318	1.4610	1.7069	1.6788	1.8413	0.8654
	1.7221	1.4757	1.7553	1.7010	1.4456	1.4561	1.3173	2.5191
11	1.5491	1.8237	1.4615	1.7160	1.3854	1.5989	1.6764	0.7236
	1.5784	1.3441	1.7003	1.4733	1.8050	1.5645	1.4934	3.0897
12	1.8865	1.6306	1.7072	1.3856	1.4085	1.5952	1.0109	
	1.2808	1.4938	1.4454	1.8049	1.5983	1.4535	2.2050	
13	1.7428	1.7323	1.6793	1.5992	1.5954	1.0350	0.5097	
	1.3739	1.3864	1.4557	1.5642	1.4535	2.0057	4.1549	
14	1.8738	1.8528	1.8418	1.6768	1.0111	0.5096		
	1.2746	1.2930	1.3170	1.4930	2.2044	4.1557		
15	0.9239	0.9148	0.8670	0.7243	F-SUB-Q			
	2.3492	2.3707	2.5160	3.0881	M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6994	1.5141	1.4874	1.5801	1.9306	1.7807	1.9215	0.9393
	1.5824	1.7973	1.8003	1.6449	1.3261	1.4203	1.3122	2.4373
9	1.5141	1.8190	1.7334	1.8691	1.6644	1.7715	1.9024	0.9312
	1.7973	1.5150	1.5383	1.3951	1.5544	1.4336	1.3316	2.4589
10	1.4874	1.7335	1.4637	1.4963	1.7582	1.7276	1.9004	0.8835
	1.8003	1.5382	1.8362	1.7735	1.4975	1.5046	1.3551	2.6134
11	1.5801	1.8692	1.4970	1.7848	1.4450	1.6684	1.7477	0.7427
	1.6449	1.3950	1.7727	1.5022	1.8475	1.5895	1.5181	3.2088
12	1.9306	1.6644	1.7585	1.4452	1.5594	1.7277	1.0613	
	1.3261	1.5544	1.4973	1.8472	1.6305	1.4765	2.2482	
13	1.7807	1.7717	1.7280	1.6688	1.7278	1.1286	0.5392	
	1.4203	1.4334	1.5042	1.5893	1.4765	2.0570	4.2693	
14	1.9215	1.9026	1.9008	1.7481	1.0614	0.5390		
	1.3122	1.3315	1.3548	1.5178	2.2476	4.2701		
15	0.9393	0.9308	0.8852	0.7435	F-SUB-Q			
	2.4373	2.4591	2.6102	3.2071	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7659	* 1.5591	* 1.5132	* 1.6051	* 1.9700	* 1.8130	* 1.9642	* 0.9490
	* 1.6485	* 1.8755	* 1.9019	* 1.7332	* 1.3873	* 1.4848	* 1.3658	* 2.5643
9	* 1.5591	* 1.8656	* 1.7673	* 1.9087	* 1.6922	* 1.8051	* 1.9469	* 0.9418
	* 1.8755	* 1.5565	* 1.6203	* 1.4631	* 1.6344	* 1.4988	* 1.3860	* 2.5904
10	* 1.5132	* 1.7675	* 1.4892	* 1.5246	* 1.8023	* 1.7686	* 1.9523	* 0.8948
	* 1.9019	* 1.6201	* 1.9405	* 1.8697	* 1.5666	* 1.5720	* 1.4092	* 2.7510
11	* 1.6051	* 1.9088	* 1.5253	* 1.8433	* 1.4878	* 1.7284	* 1.8076	* 0.7549
	* 1.7332	* 1.4630	* 1.8688	* 1.5502	* 1.9155	* 1.6325	* 1.5492	* 3.3742
12	* 1.9700	* 1.6922	* 1.8027	* 1.4879	* 1.6362	* 1.8149	* 1.0926	
	* 1.3873	* 1.6343	* 1.5664	* 1.9152	* 1.6900	* 1.5212	* 2.3397	
13	* 1.8130	* 1.8053	* 1.7690	* 1.7287	* 1.8151	* 1.1791	* 0.5576	
	* 1.4848	* 1.4985	* 1.5716	* 1.6322	* 1.5211	* 2.1422	* 4.4558	
14	* 1.9642	* 1.9471	* 1.9527	* 1.8081	* 1.0927	* 0.5575		
	* 1.3658	* 1.3859	* 1.4089	* 1.5489	* 2.3391	* 4.4566		
15	* 0.9490	* 0.9414	* 0.8966	* 0.7557	* F-SUB-Q			
	* 2.5643	* 2.5906	* 2.7475	* 3.3725	* M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7675	* 1.5611	* 1.5088	* 1.5993	* 1.9597	* 1.8087	* 1.9562	* 0.9567
	* 1.7490	* 1.9811	* 2.0395	* 1.8707	* 1.4966	* 1.5933	* 1.4675	* 2.7182
9	* 1.5611	* 1.8591	* 1.7626	* 1.8990	* 1.6874	* 1.8016	* 1.9406	* 0.9515
	* 1.9811	* 1.6546	* 1.7403	* 1.5821	* 1.7594	* 1.6084	* 1.4890	* 2.7350
10	* 1.5088	* 1.7629	* 1.4847	* 1.5232	* 1.7982	* 1.7710	* 1.9522	* 0.9092
	* 2.0395	* 1.7400	* 2.0694	* 2.0002	* 1.6760	* 1.6837	* 1.5118	* 2.8989
11	* 1.5993	* 1.8991	* 1.5240	* 1.8462	* 1.4941	* 1.7358	* 1.8151	* 0.7703
	* 1.8707	* 1.5820	* 1.9993	* 1.6358	* 2.0132	* 1.7175	* 1.6292	* 3.4919
12	* 1.9597	* 1.6874	* 1.7985	* 1.4942	* 1.6554	* 1.8342	* 1.1216	
	* 1.4966	* 1.7593	* 1.6757	* 2.0129	* 1.7978	* 1.6171	* 2.4242	
13	* 1.8087	* 1.8019	* 1.7714	* 1.7361	* 1.8343	* 1.2109	* 0.5733	
	* 1.5933	* 1.6081	* 1.6833	* 1.7172	* 1.6170	* 2.2492	* 4.6598	
14	* 1.9562	* 1.9409	* 1.9527	* 1.8155	* 1.1217	* 0.5731		
	* 1.4675	* 1.4888	* 1.5114	* 1.6288	* 2.4235	* 4.6607		
15	* 0.9567	* 0.9511	* 0.9108	* 0.7711	* F-SUB-Q			
	* 2.7182	* 2.7352	* 2.8956	* 3.4902	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7998	* 1.5787	* 1.5224	* 1.6150	* 1.9939	* 1.8341	* 1.9962	* 0.9535
	* 1.8265	* 2.0840	* 2.1507	* 1.9979	* 1.5836	* 1.6881	* 1.5442	* 2.9239
9	* 1.5787	* 1.8910	* 1.7848	* 1.9315	* 1.7049	* 1.8277	* 1.9817	* 0.9482
	* 2.0840	* 1.7309	* 1.8280	* 1.6754	* 1.8755	* 1.7035	* 1.5665	* 2.9494
10	* 1.5224	* 1.7852	* 1.4982	* 1.5386	* 1.8323	* 1.8011	* 1.9983	* 0.9043
	* 2.1507	* 1.8276	* 2.1821	* 2.1055	* 1.7461	* 1.7555	* 1.5741	* 3.1266
11	* 1.6150	* 1.9317	* 1.5393	* 1.8848	* 1.5150	* 1.7773	* 1.8615	* 0.7655
	* 1.9979	* 1.6752	* 2.1045	* 1.7020	* 2.1057	* 1.7790	* 1.6851	* 3.7255
12	* 1.9939	* 1.7050	* 1.8326	* 1.5152	* 1.6923	* 1.8852	* 1.1223	*
	* 1.5836	* 1.8755	* 1.7458	* 2.1055	* 1.8644	* 1.6677	* 2.5675	*
13	* 1.8341	* 1.8280	* 1.8015	* 1.7777	* 1.8854	* 1.2183	* 0.5717	*
	* 1.6881	* 1.7033	* 1.7551	* 1.7787	* 1.6676	* 2.3744	* 4.9478	*
14	* 1.9962	* 1.9820	* 1.9988	* 1.8620	* 1.1224	* 0.5716	*	*
	* 1.5442	* 1.5664	* 1.5737	* 1.6847	* 2.5668	* 4.9488	*	*
15	* 0.9535	* 0.9477	* 0.9060	* 0.7662	* F-SUB-Q			
	* 2.9239	* 2.9498	* 3.1226	* 3.7236	* M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7954	* 1.5714	* 1.5144	* 1.6079	* 1.9911	* 1.8316	* 1.9982	* 0.9492
	* 1.8394	* 2.0950	* 2.1600	* 2.0285	* 1.6385	* 1.7819	* 1.6333	* 3.1449
9	* 1.5714	* 1.8858	* 1.7788	* 1.9277	* 1.6985	* 1.8258	* 1.9845	* 0.9446
	* 2.0950	* 1.7404	* 1.8411	* 1.6948	* 1.9212	* 1.7895	* 1.6471	* 3.1567
10	* 1.5144	* 1.7792	* 1.4900	* 1.5325	* 1.8321	* 1.8023	* 2.0052	* 0.9019
	* 2.1600	* 1.8406	* 2.1978	* 2.1367	* 1.7904	* 1.8206	* 1.6370	* 3.2967
11	* 1.6079	* 1.9278	* 1.5333	* 1.8855	* 1.5136	* 1.7827	* 1.8700	* 0.7638
	* 2.0285	* 1.6946	* 2.1356	* 1.7462	* 2.1771	* 1.8487	* 1.7612	* 3.9211
12	* 1.9911	* 1.6985	* 1.8325	* 1.5138	* 1.6970	* 1.8949	* 1.1240	*
	* 1.6385	* 1.9213	* 1.7901	* 2.1768	* 1.9558	* 1.7524	* 2.7023	*
13	* 1.8316	* 1.8261	* 1.8027	* 1.7831	* 1.8950	* 1.2202	* 0.5706	*
	* 1.7819	* 1.7892	* 1.8202	* 1.8484	* 1.7523	* 2.5102	* 5.2638	*
14	* 1.9982	* 1.9848	* 2.0057	* 1.8705	* 1.1241	* 0.5705	*	*
	* 1.6333	* 1.6469	* 1.6366	* 1.7608	* 2.7015	* 5.2649	*	*
15	* 0.9492	* 0.9441	* 0.9037	* 0.7646	* F-SUB-Q			
	* 3.1449	* 3.1574	* 3.2925	* 3.9190	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7597	1.5428	1.4873	1.5801	1.9553	1.8049	1.9666	0.9427
	1.8459	2.0980	2.1617	2.0258	1.6367	1.7730	1.6270	3.0909
9	1.5428	1.8484	1.7479	1.8913	1.6709	1.7992	1.9538	0.9388
	2.0980	1.7454	1.8417	1.6975	1.9169	1.7821	1.6425	3.1049
10	1.4873	1.7484	1.4628	1.5070	1.8008	1.7782	1.9778	0.9008
	2.1617	1.8412	2.2002	2.1351	1.7922	1.8152	1.6331	3.2423
11	1.5801	1.8915	1.5078	1.8533	1.4916	1.7566	1.8454	0.7644
	2.0258	1.6974	2.1340	1.7489	2.1753	1.8484	1.7581	3.8538
12	1.9553	1.6708	1.8011	1.4918	1.6750	1.8698	1.1245	
	1.6367	1.9169	1.7918	2.1750	1.9614	1.7539	2.6627	
13	1.8049	1.7995	1.7786	1.7569	1.8699	1.2172	0.5698	
	1.7730	1.7818	1.8148	1.8481	1.7538	2.4872	5.2203	
14	1.9666	1.9541	1.9783	1.8459	1.1246	0.5696		
	1.6270	1.6423	1.6327	1.7576	2.6620	5.2213		
15	0.9427	0.9384	0.9025	0.7652	F-SUB-Q			
	3.0909	3.1053	3.2385	3.8518	M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7572	1.5321	1.4765	1.5707	1.9580	1.8032	1.9772	0.9260
	1.7745	2.0200	2.0768	1.9527	1.5762	1.7117	1.5604	3.0047
9	1.5321	1.8472	1.7413	1.8920	1.6617	1.7983	1.9650	0.9228
	2.0200	1.6720	1.7695	1.6273	1.8512	1.7231	1.5775	3.0211
10	1.4765	1.7418	1.4518	1.4969	1.8036	1.7794	1.9915	0.8826
	2.0768	1.7690	2.1134	2.0539	1.7183	1.7489	1.5652	3.1534
11	1.5707	1.8922	1.4978	1.8560	1.4858	1.7643	1.8586	0.7470
	1.9527	1.6272	2.0527	1.6774	2.0960	1.7704	1.6817	3.7473
12	1.9580	1.6617	1.8039	1.4860	1.6766	1.8813	1.1032	
	1.5762	1.8512	1.7179	2.0957	1.8953	1.6827	2.5978	
13	1.8032	1.7987	1.7798	1.7646	1.8814	1.1986	0.5562	
	1.7117	1.7228	1.7485	1.7700	1.6826	2.4233	5.0724	
14	1.9772	1.9652	1.9920	1.8591	1.1033	0.5560		
	1.5604	1.5773	1.5648	1.6813	2.5971	5.0734		
15	0.9260	0.9223	0.8843	0.7478	F-SUB-Q			
	3.0047	3.0219	3.1493	3.7453	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7301	* 1.5053	* 1.4507	* 1.5452	* 1.9329	* 1.7808	* 1.9588	* 0.9084
	* 1.6524	* 1.8860	* 1.9405	* 1.8086	* 1.4531	* 1.5815	* 1.4374	* 2.7906
9	* 1.5053	* 1.8197	* 1.7143	* 1.8659	* 1.6354	* 1.7769	* 1.9470	* 0.9058
	* 1.8860	* 1.5589	* 1.6498	* 1.5067	* 1.7141	* 1.5901	* 1.4518	* 2.8009
10	* 1.4507	* 1.7149	* 1.4259	* 1.4719	* 1.7805	* 1.7592	* 1.9758	* 0.8661
	* 1.9405	* 1.6493	* 1.9779	* 1.9187	* 1.6018	* 1.6277	* 1.4509	* 2.9345
11	* 1.5452	* 1.8661	* 1.4728	* 1.8319	* 1.4639	* 1.7480	* 1.8441	* 0.7327
	* 1.8086	* 1.5066	* 1.9176	* 1.5603	* 1.9533	* 1.6425	* 1.5582	* 3.5203
12	* 1.9329	* 1.6353	* 1.7809	* 1.4641	* 1.6568	* 1.8646	* 1.0839	
	* 1.4531	* 1.7142	* 1.6015	* 1.9530	* 1.7608	* 1.5588	* 2.4266	
13	* 1.7808	* 1.7773	* 1.7596	* 1.7484	* 1.8647	* 1.1787	* 0.5440	
	* 1.5815	* 1.5898	* 1.6273	* 1.6421	* 1.5587	* 2.2637	* 4.7637	
14	* 1.9588	* 1.9473	* 1.9763	* 1.8446	* 1.0840	* 0.5438		
	* 1.4374	* 1.4516	* 1.4506	* 1.5578	* 2.4259	* 4.7647		
15	* 0.9084	* 0.9052	* 0.8679	* 0.7335	* F-SUB-Q			
	* 2.7906	* 2.8018	* 2.9306	* 3.5183	* M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6894	* 1.4686	* 1.4162	* 1.5091	* 1.8918	* 1.7450	* 1.9218	* 0.8895
	* 1.5558	* 1.7753	* 1.8052	* 1.6903	* 1.3573	* 1.4780	* 1.3418	* 2.6142
9	* 1.4686	* 1.7777	* 1.6760	* 1.8242	* 1.5985	* 1.7418	* 1.9105	* 0.8874
	* 1.7753	* 1.4544	* 1.5334	* 1.4049	* 1.6014	* 1.4847	* 1.3533	* 2.6201
10	* 1.4162	* 1.6766	* 1.3915	* 1.4372	* 1.7426	* 1.7250	* 1.9406	* 0.8501
	* 1.8052	* 1.5329	* 1.8400	* 1.7855	* 1.4899	* 1.5111	* 1.3458	* 2.7332
11	* 1.5091	* 1.8244	* 1.4381	* 1.7934	* 1.4315	* 1.7147	* 1.8108	* 0.7187
	* 1.6903	* 1.4047	* 1.7845	* 1.4643	* 1.8389	* 1.5362	* 1.4550	* 3.2687
12	* 1.8918	* 1.5984	* 1.7430	* 1.4317	* 1.6237	* 1.8300	* 1.0650	
	* 1.3573	* 1.6015	* 1.4896	* 1.8387	* 1.6597	* 1.4672	* 2.2804	
13	* 1.7450	* 1.7422	* 1.7254	* 1.7151	* 1.8301	* 1.1566	* 0.5328	
	* 1.4780	* 1.4844	* 1.5108	* 1.5359	* 1.4671	* 2.1305	* 4.4992	
14	* 1.9218	* 1.9108	* 1.9411	* 1.8113	* 1.0651	* 0.5327		
	* 1.3418	* 1.3531	* 1.3455	* 1.4546	* 2.2798	* 4.5002		
15	* 0.8895	* 0.8868	* 0.8518	* 0.7195	* F-SUB-Q			
	* 2.6142	* 2.6210	* 2.7296	* 3.2669	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6306	* 1.4207	* 1.3711	* 1.4613	* 1.8295	* 1.6934	* 1.8619	* 0.8698
	* 1.5815	* 1.8009	* 1.8485	* 1.7360	* 1.3970	* 1.5180	* 1.3801	* 2.6695
9	* 1.4207	* 1.7166	* 1.6228	* 1.7623	* 1.5490	* 1.6904	* 1.8512	* 0.8678
	* 1.8009	* 1.4871	* 1.5699	* 1.4446	* 1.6438	* 1.5238	* 1.3904	* 2.6731
10	* 1.3711	* 1.6234	* 1.3465	* 1.3919	* 1.6850	* 1.6743	* 1.8821	* 0.8348
	* 1.8485	* 1.5693	* 1.8841	* 1.8275	* 1.5270	* 1.5446	* 1.3755	* 2.7713
11	* 1.4613	* 1.7625	* 1.3928	* 1.7343	* 1.3874	* 1.6609	* 1.7558	* 0.7071
	* 1.7360	* 1.4444	* 1.8264	* 1.4898	* 1.8645	* 1.5639	* 1.4801	* 3.2944
12	* 1.8295	* 1.5490	* 1.6854	* 1.3876	* 1.5747	* 1.7737	* 1.0468	
	* 1.3970	* 1.6438	* 1.5267	* 1.8642	* 1.6837	* 1.4890	* 2.2810	
13	* 1.6934	* 1.6908	* 1.6747	* 1.6613	* 1.7738	* 1.1335	* 0.5224	
	* 1.5180	* 1.5235	* 1.5443	* 1.5635	* 1.4889	* 2.1441	* 4.5235	
14	* 1.8619	* 1.8515	* 1.8826	* 1.7562	* 1.0468	* 0.5223		
	* 1.3801	* 1.3902	* 1.3752	* 1.4797	* 2.2804	* 4.5245		
15	* 0.8698	* 0.8673	* 0.8364	* 0.7078	* F-SUB-Q			
	* 2.6695	* 2.6736	* 2.7679	* 3.2925	* M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6048	* 1.3906	* 1.3420	* 1.4312	* 1.8046	* 1.6656	* 1.8431	* 0.8390
	* 1.4766	* 1.6974	* 1.7524	* 1.6478	* 1.3171	* 1.4365	* 1.2976	* 2.5802
9	* 1.3906	* 1.6915	* 1.5939	* 1.7369	* 1.5172	* 1.6635	* 1.8327	* 0.8379
	* 1.6974	* 1.3971	* 1.4829	* 1.3614	* 1.5603	* 1.4411	* 1.3062	* 2.5801
10	* 1.3420	* 1.5945	* 1.3177	* 1.3617	* 1.6609	* 1.6480	* 1.8637	* 0.8024
	* 1.7524	* 1.4823	* 1.7859	* 1.7342	* 1.4363	* 1.4563	* 1.2884	* 2.6833
11	* 1.4312	* 1.7371	* 1.3626	* 1.7100	* 1.3590	* 1.6418	* 1.7376	* 0.6772
	* 1.6478	* 1.3613	* 1.7331	* 1.3960	* 1.7570	* 1.4628	* 1.3827	* 3.1922
12	* 1.8046	* 1.5172	* 1.6613	* 1.3593	* 1.5499	* 1.7545	* 1.0059	
	* 1.3171	* 1.5603	* 1.4360	* 1.7568	* 1.5632	* 1.3799	* 2.1866	
13	* 1.6656	* 1.6639	* 1.6484	* 1.6422	* 1.7546	* 1.0953	* 0.5001	
	* 1.4365	* 1.4408	* 1.4559	* 1.4625	* 1.3798	* 2.0295	* 4.3387	
14	* 1.8431	* 1.8331	* 1.8642	* 1.7380	* 1.0059	* 0.5000		
	* 1.2976	* 1.3061	* 1.2880	* 1.3823	* 2.1860	* 4.3397		
15	* 0.8390	* 0.8373	* 0.8040	* 0.6780	* F-SUB-Q			
	* 2.5802	* 2.5811	* 2.6796	* 3.1903	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5487	* 1.3423	* 1.2966	* 1.3821	* 1.7444	* 1.6128	* 1.7854	* 0.8087
	* 1.4286	* 1.6453	* 1.7021	* 1.6028	* 1.2796	* 1.3940	* 1.2586	* 2.5204
9	* 1.3423	* 1.6343	* 1.5418	* 1.6777	* 1.4657	* 1.6109	* 1.7755	* 0.8079
	* 1.6453	* 1.3548	* 1.4379	* 1.3228	* 1.5169	* 1.3964	* 1.2662	* 2.5187
10	* 1.2966	* 1.5425	* 1.2731	* 1.3145	* 1.6047	* 1.5956	* 1.8055	* 0.7738
	* 1.7021	* 1.4373	* 1.7344	* 1.6856	* 1.3937	* 1.4106	* 1.2466	* 2.6163
11	* 1.3821	* 1.6779	* 1.3154	* 1.6530	* 1.3124	* 1.5878	* 1.6816	* 0.6523
	* 1.6028	* 1.3227	* 1.6845	* 1.3513	* 1.7021	* 1.4157	* 1.3370	* 3.1110
12	* 1.7444	* 1.4657	* 1.6051	* 1.3126	* 1.5004	* 1.6990	* 0.9700	
	* 1.2796	* 1.5169	* 1.3934	* 1.7019	* 1.5017	* 1.3267	* 2.1190	
13	* 1.6128	* 1.6113	* 1.5960	* 1.5882	* 1.6991	* 1.0581	* 0.4815	
	* 1.3940	* 1.3961	* 1.4103	* 1.4154	* 1.3267	* 1.9554	* 4.2066	
14	* 1.7854	* 1.7758	* 1.8060	* 1.6820	* 0.9700	* 0.4813		
	* 1.2586	* 1.2661	* 1.2463	* 1.3367	* 2.1184	* 4.2076		
15	* 0.8087	* 0.8073	* 0.7754	* 0.6531	* F-SUB-Q			
	* 2.5204	* 2.5196	* 2.6126	* 3.1091	* M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4576	* 1.2733	* 1.2325	* 1.3112	* 1.6434	* 1.5313	* 1.6820	* 0.7776
	* 1.4369	* 1.6431	* 1.6987	* 1.6029	* 1.2883	* 1.3927	* 1.2673	* 2.4919
9	* 1.2733	* 1.5395	* 1.4631	* 1.5792	* 1.3917	* 1.5290	* 1.6731	* 0.7767
	* 1.6431	* 1.3624	* 1.4366	* 1.3327	* 1.5155	* 1.3944	* 1.2743	* 2.4896
10	* 1.2325	* 1.4638	* 1.2103	* 1.2480	* 1.5122	* 1.5137	* 1.7008	* 0.7480
	* 1.6987	* 1.4359	* 1.7302	* 1.6828	* 1.4017	* 1.4089	* 1.2534	* 2.5709
11	* 1.3112	* 1.5795	* 1.2488	* 1.5588	* 1.2455	* 1.4935	* 1.5815	* 0.6315
	* 1.6029	* 1.3325	* 1.6816	* 1.3567	* 1.6980	* 1.4247	* 1.3454	* 3.0501
12	* 1.6434	* 1.3916	* 1.5125	* 1.2457	* 1.4234	* 1.6015	* 0.9374	
	* 1.2883	* 1.5155	* 1.4014	* 1.6977	* 1.4945	* 1.3287	* 2.0750	
13	* 1.5313	* 1.5294	* 1.5141	* 1.4939	* 1.6016	* 1.0203	* 0.4664	
	* 1.3927	* 1.3940	* 1.4086	* 1.4244	* 1.3286	* 1.9153	* 4.1107	
14	* 1.6820	* 1.6734	* 1.7013	* 1.5819	* 0.9374	* 0.4663		
	* 1.2673	* 1.2741	* 1.2531	* 1.3451	* 2.0745	* 4.1117		
15	* 0.7776	* 0.7761	* 0.7495	* 0.6322	* F-SUB-Q			
	* 2.4919	* 2.4906	* 2.5677	* 3.0483	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3884	1.2171	1.1781	1.2523	1.5648	1.4642	1.6036	0.7324
	1.4441	1.6460	1.7029	1.6081	1.2958	1.3948	1.2730	2.5394
9	1.2171	1.4650	1.3993	1.5033	1.3292	1.4627	1.5953	0.7314
	1.6460	1.3710	1.4386	1.3408	1.5197	1.3956	1.2796	2.5365
10	1.1781	1.4000	1.1578	1.1928	1.4421	1.4481	1.6200	0.7015
	1.7029	1.4379	1.7331	1.6881	1.4070	1.4093	1.2590	2.6300
11	1.2523	1.5036	1.1936	1.4869	1.1914	1.4221	1.5040	0.5893
	1.6081	1.3406	1.6870	1.3607	1.6984	1.4314	1.3531	3.1343
12	1.5648	1.3292	1.4425	1.1916	1.3637	1.5272	0.8775	
	1.2958	1.5197	1.4067	1.6982	1.4905	1.3312	2.1216	
13	1.4642	1.4631	1.4484	1.4224	1.5273	0.9608	0.4371	
	1.3948	1.3953	1.4090	1.4311	1.3311	1.9447	4.2027	
14	1.6036	1.5956	1.6205	1.5044	0.8775	0.4369		
	1.2730	1.2794	1.2587	1.3528	2.1211	4.2038		
15	0.7324	0.7309	0.7029	0.5900	F-SUB-Q			
	2.5394	2.5376	2.6265	3.1323	M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2776	1.1265	1.0766	1.1548	1.4234	1.3377	1.4499	0.6794
	1.5168	1.7193	1.8027	1.6861	1.3756	1.4755	1.3609	2.6521
9	1.1265	1.3345	1.2782	1.3713	1.2270	1.3360	1.4422	0.6784
	1.7193	1.4547	1.5226	1.4208	1.5916	1.4762	1.3681	2.6498
10	1.0766	1.2789	1.0589	1.1051	1.3255	1.3251	1.4652	0.6493
	1.8027	1.5219	1.8336	1.7619	1.4791	1.4879	1.3448	2.7528
11	1.1548	1.3715	1.1059	1.3638	1.1075	1.3019	1.3681	0.5425
	1.6861	1.4206	1.7607	1.4333	1.7656	1.5086	1.4370	3.2989
12	1.4234	1.2269	1.3257	1.1077	1.2501	1.3857	0.8137	
	1.3756	1.5917	1.4788	1.7654	1.5705	1.4167	2.2128	
13	1.3377	1.3363	1.3254	1.3022	1.3858	0.8809	0.4015	
	1.4755	1.4759	1.4876	1.5083	1.4166	2.0510	4.4333	
14	1.4499	1.4424	1.4656	1.3685	0.8137	0.4014		
	1.3609	1.3679	1.3445	1.4367	2.2123	4.4344		
15	0.6794	0.6779	0.6505	0.5431	F-SUB-Q			
	2.6521	2.6508	2.7494	3.2969	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 50 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2073	* 0.9342	* 0.8643	* 0.9491	* 1.2835	* 1.0734	* 1.2674	* 0.5676
	* 1.5633	* 2.0208	* 2.1911	* 2.0007	* 1.4857	* 1.7915	* 1.5170	* 3.1025
9	* 0.9342	* 1.2059	* 1.0385	* 1.2531	* 1.0141	* 1.0726	* 1.2632	* 0.5708
	* 2.0208	* 1.5668	* 1.8262	* 1.5158	* 1.8772	* 1.7920	* 1.5220	* 3.0777
10	* 0.8643	* 1.0390	* 0.8462	* 0.9182	* 1.2433	* 1.0660	* 1.2441	* 0.5427
	* 2.1911	* 1.8253	* 2.2389	* 2.0672	* 1.5352	* 1.8019	* 1.5441	* 3.2185
11	* 0.9491	* 1.2532	* 0.9186	* 1.2455	* 0.9274	* 1.2256	* 1.1576	* 0.4501
	* 2.0007	* 1.5156	* 2.0661	* 1.5284	* 2.0553	* 1.5596	* 1.6553	* 3.8868
12	* 1.2835	* 1.0141	* 1.2435	* 0.9275	* 1.0179	* 1.1752	* 0.6902	*
	* 1.4857	* 1.8773	* 1.5349	* 2.0551	* 1.8801	* 1.6285	* 2.5468	*
13	* 1.0734	* 1.0729	* 1.0662	* 1.2257	* 1.1752	* 0.7222	* 0.3285	*
	* 1.7915	* 1.7916	* 1.8016	* 1.5594	* 1.6285	* 2.4424	* 5.3003	*
14	* 1.2674	* 1.2633	* 1.2443	* 1.1579	* 0.6902	* 0.3284	*	*
	* 1.5170	* 1.5218	* 1.5437	* 1.6550	* 2.5463	* 5.3015	*	*
15	* 0.5676	* 0.5705	* 0.5433	* 0.4506	* F-SUB-Q			
	* 3.1025	* 3.0784	* 3.2172	* 3.8848	* M-SUB-Q			

AT 75% POWER, 50 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4661	* 0.3946	* 0.3694	* 0.4079	* 0.4891	* 0.4135	* 0.4493	* 0.2335
	* 3.9653	* 4.6894	* 5.0273	* 4.5639	* 3.8155	* 4.5485	* 4.1871	* 7.4036
9	* 0.3946	* 0.4585	* 0.4048	* 0.4745	* 0.4237	* 0.4124	* 0.4475	* 0.2340
	* 4.6894	* 4.0385	* 4.5901	* 3.9206	* 4.4022	* 4.5580	* 4.2035	* 7.3705
10	* 0.3694	* 0.4049	* 0.3613	* 0.3977	* 0.4768	* 0.4121	* 0.4380	* 0.2248
	* 5.0273	* 4.5881	* 5.1402	* 4.6822	* 3.9139	* 4.5445	* 4.2915	* 7.6261
11	* 0.4079	* 0.4745	* 0.3979	* 0.4606	* 0.4006	* 0.4626	* 0.4079	* 0.1904
	* 4.5639	* 3.9200	* 4.6802	* 4.0453	* 4.6653	* 4.0471	* 4.6019	* 9.0239
12	* 0.4891	* 0.4237	* 0.4769	* 0.4007	* 0.3893	* 0.4168	* 0.2814	*
	* 3.8155	* 4.4022	* 3.9132	* 4.6648	* 4.8117	* 4.4952	* 6.1296	*
13	* 0.4135	* 0.4125	* 0.4122	* 0.4627	* 0.4169	* 0.2888	* 0.1421	*
	* 4.5485	* 4.5571	* 4.5438	* 4.0465	* 4.4950	* 5.9893	* 12.0460	*
14	* 0.4493	* 0.4476	* 0.4381	* 0.4080	* 0.2814	* 0.1420	*	*
	* 4.1871	* 4.2031	* 4.2906	* 4.6009	* 6.1282	* 12.0481	*	*
15	* 0.2335	* 0.2339	* 0.2250	* 0.1906	* F-SUB-Q			
	* 7.4035	* 7.3707	* 7.6266	* 9.0209	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.3286	* 0.3610	* 0.3862	* 0.4323	* 0.5072	* 0.4395	* 0.4571	* 0.2529 *
	* 4.3160	* 5.0376	* 5.0475	* 4.4820	* 3.8239	* 4.4336	* 4.3236	* 7.0891 *
9	* 0.3610	* 0.4389	* 0.4160	* 0.4907	* 0.4491	* 0.4325	* 0.4524	* 0.2519 *
	* 5.0376	* 4.4753	* 4.7078	* 3.9563	* 4.3137	* 4.4955	* 4.3670	* 7.1044 *
10	* 0.3862	* 0.4160	* 0.3791	* 0.4107	* 0.4757	* 0.4156	* 0.4276	* 0.2356 *
	* 5.0475	* 4.7069	* 5.2455	* 4.7472	* 4.0759	* 4.6558	* 4.5230	* 7.4218 *
11	* 0.4323	* 0.4907	* 0.4108	* 0.4349	* 0.3784	* 0.4194	* 0.3841	* 0.1957 *
	* 4.4820	* 3.9561	* 4.7462	* 4.4692	* 5.0477	* 4.5226	* 5.0246	* 8.8922 *
12	* 0.5072	* 0.4491	* 0.4758	* 0.3784	* 0.3020	* 0.3248	* 0.2477 *	
	* 3.8239	* 4.3135	* 4.0754	* 5.0473	* 5.0779	* 4.9123	* 6.5891 *	
13	* 0.4395	* 0.4325	* 0.4156	* 0.4194	* 0.3248	* 0.2083	* 0.1245 *	
	* 4.4336	* 4.4953	* 4.6551	* 4.5222	* 4.9121	* 6.1890	* 11.6653 *	
14	* 0.4571	* 0.4525	* 0.4277	* 0.3841	* 0.2477	* 0.1245 *		
	* 4.3236	* 4.3667	* 4.5221	* 5.0236	* 6.5874	* 11.6670 *		
15	* 0.2529	* 0.2519	* 0.2358	* 0.1959	* F-SUB-Q			
	* 7.0891	* 7.1031	* 7.4176	* 8.8898	* M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.7932	* 0.8157	* 0.8564	* 0.9538	* 1.2160	* 1.0506	* 1.1712	* 0.6023 *
	* 1.8567	* 2.2976	* 2.3461	* 2.0958	* 1.6462	* 1.9109	* 1.7340	* 3.0614 *
9	* 0.8157	* 1.0707	* 0.9970	* 1.1839	* 1.0117	* 1.0395	* 1.1604	* 0.5983 *
	* 2.2976	* 1.8921	* 2.0196	* 1.6913	* 1.9766	* 1.9337	* 1.7353	* 3.0465 *
10	* 0.8564	* 0.9971	* 0.8407	* 0.9056	* 1.1443	* 0.9938	* 1.1047	* 0.5579 *
	* 2.3461	* 2.0194	* 2.4153	* 2.2120	* 1.7457	* 2.0092	* 1.8046	* 3.2237 *
11	* 0.9538	* 1.1840	* 0.9058	* 1.0844	* 0.8321	* 1.0232	* 0.9810	* 0.4571 *
	* 2.0958	* 1.6912	* 2.2115	* 1.8405	* 2.3384	* 1.8991	* 2.0305	* 3.9296 *
12	* 1.2160	* 1.0117	* 1.1444	* 0.8322	* 0.7194	* 0.8328	* 0.5952 *	
	* 1.6462	* 1.9766	* 1.7455	* 2.3383	* 2.1444	* 1.9517	* 2.8135 *	
13	* 1.0506	* 1.0396	* 0.9940	* 1.0233	* 0.8329	* 0.5060	* 0.2881 *	
	* 1.9109	* 1.9336	* 2.0088	* 1.8989	* 1.9516	* 2.6082	* 5.1816 *	
14	* 1.1712	* 1.1605	* 1.1049	* 0.9812	* 0.5953	* 0.2880 *		
	* 1.7340	* 1.7352	* 1.8043	* 2.0301	* 2.8128	* 5.1825 *		
15	* 0.6023	* 0.5981	* 0.5586	* 0.4575	* F-SUB-Q			
	* 3.0614	* 3.0461	* 3.2222	* 3.9283	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.9411	* 1.0090	* 1.0658	* 1.1744	* 1.4010	* 1.3023	* 1.3646	* 0.7418
	* 1.7206	* 1.9324	* 1.9338	* 1.7464	* 1.4622	* 1.5754	* 1.5036	* 2.5074
9	* 1.0090	* 1.2325	* 1.2277	* 1.3505	* 1.2388	* 1.2932	* 1.3451	* 0.7346
	* 1.9324	* 1.6841	* 1.6811	* 1.5189	* 1.6547	* 1.5846	* 1.5222	* 2.5245
10	* 1.0658	* 1.2278	* 1.0503	* 1.1080	* 1.2792	* 1.2395	* 1.3221	* 0.6889
	* 1.9338	* 1.6810	* 1.9655	* 1.8525	* 1.6019	* 1.6507	* 1.5442	* 2.6695
11	* 1.1744	* 1.3506	* 1.1083	* 1.2385	* 1.0153	* 1.1489	* 1.1857	* 0.5683
	* 1.7464	* 1.5188	* 1.8521	* 1.6519	* 1.9645	* 1.7491	* 1.7212	* 3.2444
12	* 1.4010	* 1.2389	* 1.2793	* 1.0154	* 0.8895	* 0.9966	* 0.7328	
	* 1.4622	* 1.6546	* 1.6017	* 1.9644	* 1.7847	* 1.6684	* 2.3466	
13	* 1.3023	* 1.2933	* 1.2397	* 1.1491	* 0.9967	* 0.6294	* 0.3629	
	* 1.5754	* 1.5845	* 1.6504	* 1.7489	* 1.6684	* 2.1658	* 4.2403	
14	* 1.3646	* 1.3452	* 1.3223	* 1.1859	* 0.7329	* 0.3628		
	* 1.5036	* 1.5220	* 1.5439	* 1.7208	* 2.3459	* 4.2410		
15	* 0.7418	* 0.7344	* 0.6898	* 0.5688	* F-SUB-Q			
	* 2.5074	* 2.5243	* 2.6680	* 3.2433	* M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0929	* 1.1338	* 1.1954	* 1.3150	* 1.6087	* 1.4728	* 1.5713	* 0.8129
	* 1.5563	* 1.7881	* 1.7809	* 1.6077	* 1.3097	* 1.4285	* 1.3376	* 2.3431
9	* 1.1338	* 1.4194	* 1.3874	* 1.5493	* 1.3890	* 1.4628	* 1.5506	* 0.8035
	* 1.7881	* 1.5115	* 1.5349	* 1.3646	* 1.5201	* 1.4382	* 1.3548	* 2.3657
10	* 1.1954	* 1.3874	* 1.1782	* 1.2393	* 1.4699	* 1.4057	* 1.5310	* 0.7543
	* 1.7809	* 1.5349	* 1.8078	* 1.7096	* 1.4383	* 1.4989	* 1.3721	* 2.5079
11	* 1.3150	* 1.5494	* 1.2396	* 1.4236	* 1.1374	* 1.3323	* 1.3763	* 0.6245
	* 1.6077	* 1.3645	* 1.7091	* 1.4845	* 1.8123	* 1.5655	* 1.5317	* 3.0495
12	* 1.6087	* 1.3891	* 1.4701	* 1.1376	* 1.0043	* 1.1612	* 0.8138	
	* 1.3097	* 1.5200	* 1.4381	* 1.8121	* 1.6267	* 1.4906	* 2.1969	
13	* 1.4728	* 1.4629	* 1.4060	* 1.3325	* 1.1613	* 0.7087	* 0.4010	
	* 1.4285	* 1.4381	* 1.4986	* 1.5653	* 1.4905	* 2.0161	* 4.0122	
14	* 1.5713	* 1.5507	* 1.5313	* 1.3767	* 0.8139	* 0.4009		
	* 1.3376	* 1.3547	* 1.3718	* 1.5313	* 2.1963	* 4.0129		
15	* 0.8129	* 0.8032	* 0.7557	* 0.6251	* F-SUB-Q			
	* 2.3431	* 2.3657	* 2.5052	* 3.0481	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1947	1.2121	1.2654	1.3951	1.7283	1.5651	1.6893	0.8614
	1.5040	1.7559	1.7487	1.5686	1.2605	1.3905	1.2861	2.2869
9	1.2121	1.5325	1.4762	1.6671	1.4741	1.5550	1.6703	0.8535
	1.7559	1.4633	1.4985	1.3134	1.4820	1.4008	1.3000	2.3046
10	1.2654	1.4762	1.2468	1.3185	1.5860	1.5040	1.6576	0.8029
	1.7487	1.4985	1.7784	1.6683	1.3816	1.4509	1.3120	2.4415
11	1.3951	1.6671	1.3189	1.5408	1.2217	1.4598	1.5030	0.6682
	1.5686	1.3134	1.6678	1.4329	1.7691	1.4999	1.4567	2.9539
12	1.7283	1.4742	1.5862	1.2219	1.0900	1.2860	0.8864	
	1.2605	1.4819	1.3814	1.7690	1.5854	1.4334	2.1290	
13	1.5651	1.5551	1.5043	1.4602	1.2861	0.7798	0.4349	
	1.3905	1.4007	1.4506	1.4997	1.4334	1.9683	3.9484	
14	1.6893	1.6704	1.6579	1.5034	0.8865	0.4348		
	1.2861	1.2999	1.3117	1.4564	2.1285	3.9492		
15	0.8614	0.8532	0.8043	0.6688	F-SUB-Q			
	2.2869	2.3046	2.4388	2.9526	M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3055	1.2797	1.3137	1.4483	1.8029	1.6246	1.7639	0.8969
	1.5038	1.7695	1.7630	1.5748	1.2553	1.3869	1.2750	2.2752
9	1.2797	1.6137	1.5365	1.7428	1.5313	1.6153	1.7502	0.8907
	1.7695	1.4656	1.5061	1.3105	1.4861	1.3969	1.2849	2.2879
10	1.3137	1.5366	1.2942	1.3751	1.6664	1.5737	1.7443	0.8417
	1.7630	1.5061	1.7942	1.6750	1.3761	1.4469	1.2982	2.4195
11	1.4483	1.7429	1.3756	1.6291	1.2959	1.5589	1.6002	0.7056
	1.5748	1.3105	1.6744	1.4265	1.7674	1.4829	1.4411	2.9314
12	1.8029	1.5313	1.6667	1.2961	1.1927	1.4132	0.9568	
	1.2553	1.4861	1.3759	1.7672	1.5897	1.4259	2.1108	
13	1.6246	1.6155	1.5741	1.5592	1.4133	0.8728	0.4724	
	1.3869	1.3967	1.4466	1.4826	1.4258	1.9711	3.9663	
14	1.7639	1.7504	1.7446	1.6006	0.9569	0.4723		
	1.2750	1.2848	1.2979	1.4407	2.1102	3.9670		
15	0.8969	0.8904	0.8431	0.7062	F-SUB-Q			
	2.2752	2.2879	2.4170	2.9302	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4946	1.3557	1.3610	1.4967	1.8770	1.6819	1.8403	0.9207
	1.5077	1.7876	1.8071	1.6059	1.2665	1.4019	1.2758	2.3163
9	1.3557	1.7015	1.5969	1.8185	1.5843	1.6741	1.8305	0.9141
	1.7876	1.4843	1.5356	1.3248	1.5125	1.4124	1.2861	2.3311
10	1.3610	1.5970	1.3413	1.4290	1.7510	1.6435	1.8327	0.8665
	1.8071	1.5355	1.8369	1.7076	1.3873	1.4616	1.3009	2.4689
11	1.4967	1.8186	1.4295	1.7306	1.3787	1.6644	1.7026	0.7300
	1.6059	1.3247	1.7070	1.4237	1.7730	1.4697	1.4430	2.9999
12	1.8770	1.5843	1.7513	1.3789	1.3639	1.5807	1.0197	
	1.2665	1.5125	1.3871	1.7728	1.6015	1.4257	2.1352	
13	1.6819	1.6743	1.6439	1.6647	1.5808	0.9970	0.5084	
	1.4019	1.4122	1.4613	1.4694	1.4256	2.0044	4.0590	
14	1.8403	1.8306	1.8331	1.7030	1.0198	0.5083		
	1.2758	1.2860	1.3006	1.4426	2.1346	4.0597		
15	0.9207	0.9138	0.8681	0.7307	F-SUB-Q			
	2.3163	2.3312	2.4660	2.9986	M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6817	1.4336	1.3949	1.5299	1.9255	1.7204	1.8931	0.9386
	1.5411	1.8369	1.8873	1.6717	1.3094	1.4487	1.3101	2.3989
9	1.4336	1.7657	1.6394	1.8693	1.6204	1.7143	1.8850	0.9326
	1.8369	1.5196	1.5996	1.3726	1.5720	1.4597	1.3206	2.4135
10	1.3949	1.6396	1.3746	1.4681	1.8112	1.6947	1.8973	0.8872
	1.8873	1.5994	1.9196	1.7772	1.4332	1.5089	1.3362	2.5565
11	1.5299	1.8694	1.4686	1.8146	1.4450	1.7501	1.7812	0.7517
	1.6717	1.3725	1.7766	1.4500	1.8108	1.4906	1.4657	3.1093
12	1.9255	1.6204	1.8115	1.4452	1.5202	1.7307	1.0757	
	1.3094	1.5720	1.4330	1.8106	1.6316	1.4446	2.1739	
13	1.7204	1.7146	1.6951	1.7504	1.7308	1.1008	0.5409	
	1.4487	1.4595	1.5086	1.4904	1.4445	2.0520	4.1618	
14	1.8931	1.8852	1.8977	1.7816	1.0758	0.5408		
	1.3101	1.3205	1.3360	1.4654	2.1734	4.1626		
15	0.9386	0.9322	0.8889	0.7524	F-SUB-Q			
	2.3989	2.4137	2.5536	3.1078	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7703	* 1.4895	* 1.4226	* 1.5571	* 1.9693	* 1.7536	* 1.9405	* 0.9503
	* 1.6037	* 1.9179	* 1.9952	* 1.7613	* 1.3688	* 1.5149	* 1.3614	* 2.5219
9	* 1.4895	* 1.8192	* 1.6754	* 1.9145	* 1.6503	* 1.7508	* 1.9341	* 0.9441
	* 1.9179	* 1.5678	* 1.6850	* 1.4379	* 1.6535	* 1.5265	* 1.3722	* 2.5412
10	* 1.4226	* 1.6756	* 1.4021	* 1.4998	* 1.8655	* 1.7382	* 1.9562	* 0.9009
	* 1.9952	* 1.6847	* 2.0278	* 1.8721	* 1.4965	* 1.5765	* 1.3889	* 2.6888
11	* 1.5571	* 1.9146	* 1.5004	* 1.8834	* 1.4951	* 1.8216	* 1.8489	* 0.7664
	* 1.7613	* 1.4378	* 1.8713	* 1.4918	* 1.8733	* 1.5255	* 1.4926	* 3.2729
12	* 1.9693	* 1.6503	* 1.8658	* 1.4953	* 1.6106	* 1.8317	* 1.1131	*
	* 1.3688	* 1.6535	* 1.4962	* 1.8730	* 1.6913	* 1.4872	* 2.2608	*
13	* 1.7536	* 1.7511	* 1.7386	* 1.8219	* 1.8318	* 1.1608	* 0.5629	*
	* 1.5149	* 1.5263	* 1.5761	* 1.5252	* 1.4871	* 2.1368	* 4.3418	*
14	* 1.9405	* 1.9343	* 1.9566	* 1.8493	* 1.1132	* 0.5627	*	*
	* 1.3614	* 1.3721	* 1.3886	* 1.4922	* 2.2601	* 4.3426	*	*
15	* 0.9503	* 0.9436	* 0.9026	* 0.7671	* F-SUB-Q			
	* 2.5219	* 2.5414	* 2.6856	* 3.2714	* M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7827	* 1.5003	* 1.4250	* 1.5570	* 1.9633	* 1.7527	* 1.9379	* 0.9606
	* 1.7051	* 2.0296	* 2.1301	* 1.8978	* 1.4767	* 1.6257	* 1.4615	* 2.6719
9	* 1.5003	* 1.8201	* 1.6756	* 1.9099	* 1.6505	* 1.7538	* 1.9328	* 0.9578
	* 2.0296	* 1.6657	* 1.8060	* 1.5544	* 1.7810	* 1.6382	* 1.4730	* 2.6807
10	* 1.4250	* 1.6759	* 1.4023	* 1.5038	* 1.8677	* 1.7455	* 1.9627	* 0.9181
	* 2.1301	* 1.8057	* 2.1613	* 2.0015	* 1.5943	* 1.6888	* 1.4899	* 2.8321
11	* 1.5570	* 1.9100	* 1.5045	* 1.8941	* 1.5109	* 1.8358	* 1.8633	* 0.7854
	* 1.8978	* 1.5543	* 2.0007	* 1.5746	* 1.9670	* 1.6050	* 1.5700	* 3.3851
12	* 1.9633	* 1.6505	* 1.8680	* 1.5111	* 1.6392	* 1.8603	* 1.1480	*
	* 1.4767	* 1.7810	* 1.5940	* 1.9667	* 1.7933	* 1.5752	* 2.3362	*
13	* 1.7527	* 1.7541	* 1.7458	* 1.8361	* 1.8604	* 1.1992	* 0.5820	*
	* 1.6257	* 1.6379	* 1.6884	* 1.6047	* 1.5751	* 2.2424	* 4.5290	*
14	* 1.9379	* 1.9330	* 1.9631	* 1.8637	* 1.1481	* 0.5818	*	*
	* 1.4615	* 1.4729	* 1.4896	* 1.5697	* 2.3356	* 4.5299	*	*
15	* 0.9606	* 0.9574	* 0.9195	* 0.7861	* F-SUB-Q			
	* 2.6718	* 2.6809	* 2.8296	* 3.3836	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8258	1.5233	1.4386	1.5742	2.0035	1.7797	1.9834	0.9598
	1.7776	2.1343	2.2514	2.0299	1.5625	1.7247	1.5374	2.8752
9	1.5233	1.8611	1.7005	1.9495	1.6709	1.7836	1.9793	0.9555
	2.1343	1.7416	1.8983	1.6434	1.9012	1.7376	1.5491	2.8921
10	1.4386	1.7009	1.4182	1.5229	1.9122	1.7784	2.0147	0.9156
	2.2514	1.8979	2.2813	2.1075	1.6595	1.7638	1.5485	3.0559
11	1.5742	1.9497	1.5236	1.9420	1.5371	1.8883	1.9179	0.7823
	2.0299	1.6433	2.1066	1.6385	2.0613	1.6611	1.6249	3.6143
12	2.0035	1.6709	1.9125	1.5373	1.6813	1.9196	1.1542	
	1.5625	1.9013	1.6593	2.0611	1.8633	1.6267	2.4748	
13	1.7797	1.7839	1.7788	1.8886	1.9197	1.2113	0.5826	
	1.7247	1.7373	1.7634	1.6608	1.6266	2.3644	4.8109	
14	1.9834	1.9795	2.0152	1.9183	1.1543	0.5825		
	1.5374	1.5490	1.5482	1.6246	2.4741	4.8118		
15	0.9598	0.9549	0.9174	0.7831	F-SUB-Q			
	2.8752	2.8925	3.0523	3.6127	M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8288	1.5219	1.4350	1.5717	2.0067	1.7812	1.9914	0.9582
	1.8116	2.1703	2.2845	2.0795	1.6290	1.8350	1.6417	3.1009
9	1.5219	1.8637	1.6993	1.9523	1.6695	1.7871	1.9881	0.9548
	2.1703	1.7695	1.9313	1.6772	1.9584	1.8341	1.6461	3.1147
10	1.4350	1.6998	1.4145	1.5220	1.9186	1.7843	2.0278	0.9163
	2.2845	1.9308	2.3202	2.1549	1.7118	1.8414	1.6212	3.2417
11	1.5717	1.9525	1.5227	1.9504	1.5415	1.9015	1.9337	0.7834
	2.0795	1.6771	2.1539	1.6905	2.1393	1.7353	1.7055	3.8199
12	2.0067	1.6695	1.9190	1.5417	1.6923	1.9369	1.1607	
	1.6290	1.9584	1.7115	2.1391	1.9612	1.7142	2.6113	
13	1.7812	1.7875	1.7847	1.9018	1.9370	1.2178	0.5839	
	1.8350	1.8338	1.8410	1.7350	1.7141	2.5055	5.1234	
14	1.9914	1.9882	2.0282	1.9341	1.1608	0.5838		
	1.6417	1.6460	1.6209	1.7051	2.6107	5.1244		
15	0.9582	0.9543	0.9180	0.7842	F-SUB-Q			
	3.1008	3.1152	3.2379	3.8181	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7986	1.5001	1.4182	1.5517	1.9771	1.7601	1.9667	0.9553
	1.8143	2.1677	2.2731	2.0684	1.6228	1.8212	1.6306	3.0513
9	1.5001	1.8338	1.6758	1.9225	1.6482	1.7684	1.9639	0.9539
	2.1677	1.7702	1.9259	1.6751	1.9483	1.8229	1.6361	3.0558
10	1.4182	1.6763	1.3936	1.5030	1.8916	1.7665	2.0068	0.9186
	2.2731	1.9254	2.3160	2.1463	1.7089	1.8307	1.6129	3.1774
11	1.5517	1.9227	1.5037	1.9251	1.5268	1.8800	1.9158	0.7879
	2.0684	1.6750	2.1453	1.6875	2.1281	1.7298	1.6969	3.7388
12	1.9771	1.6482	1.8919	1.5270	1.6779	1.9192	1.1659	
	1.6228	1.9483	1.7086	2.1278	1.9593	1.7093	2.5648	
13	1.7601	1.7688	1.7668	1.8803	1.9193	1.2203	0.5858	
	1.8212	1.8225	1.8303	1.7294	1.7092	2.4737	5.0627	
14	1.9667	1.9641	2.0072	1.9162	1.1659	0.5857		
	1.6306	1.6360	1.6126	1.6965	2.5642	5.0638		
15	0.9553	0.9535	0.9201	0.7886	F-SUB-Q			
	3.0513	3.0562	3.1745	3.7371	M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8051	1.4954	1.4082	1.5461	1.9879	1.7632	1.9848	0.9417
	1.7433	2.0856	2.1885	1.9974	1.5630	1.7579	1.5634	2.9714
9	1.4954	1.8406	1.6742	1.9320	1.6445	1.7725	1.9831	0.9396
	2.0856	1.6934	1.8497	1.6062	1.8837	1.7623	1.5722	2.9830
10	1.4082	1.6748	1.3873	1.4982	1.9034	1.7726	2.0282	0.9033
	2.1885	1.8491	2.2231	2.0673	1.6419	1.7687	1.5502	3.0989
11	1.5461	1.9321	1.4990	1.9371	1.5252	1.8997	1.9378	0.7723
	1.9974	1.6060	2.0663	1.6215	2.0581	1.6614	1.6286	3.6486
12	1.9879	1.6444	1.9038	1.5254	1.6850	1.9391	1.1495	
	1.5630	1.8837	1.6416	2.0578	1.8995	1.6456	2.5091	
13	1.7633	1.7729	1.7730	1.9001	1.9392	1.2062	0.5739	
	1.7579	1.7619	1.7684	1.6611	1.6455	2.4182	4.9373	
14	1.9848	1.9834	2.0286	1.9382	1.1495	0.5737		
	1.5634	1.5721	1.5499	1.6283	2.5085	4.9384		
15	0.9417	0.9390	0.9050	0.7731	F-SUB-Q			
	2.9714	2.9835	3.0951	3.6469	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7849	* 1.4751	* 1.3883	* 1.5265	* 1.9704	* 1.7467	* 1.9735	* 0.9273
	* 1.6155	* 1.9388	* 2.0279	* 1.8441	* 1.4377	* 1.6241	* 1.4396	* 2.7533
9	* 1.4751	* 1.8209	* 1.6541	* 1.9138	* 1.6244	* 1.7574	* 1.9731	* 0.9261
	* 1.9388	* 1.5695	* 1.7104	* 1.4793	* 1.7390	* 1.6253	* 1.4451	* 2.7594
10	* 1.3883	* 1.6547	* 1.3671	* 1.4791	* 1.8881	* 1.7584	* 2.0198	* 0.8899
	* 2.0279	* 1.7098	* 2.0621	* 1.9142	* 1.5173	* 1.6333	* 1.4263	* 2.8724
11	* 1.5265	* 1.9140	* 1.4799	* 1.9208	* 1.5089	* 1.8909	* 1.9310	* 0.7605
	* 1.8441	* 1.4792	* 1.9132	* 1.5013	* 1.9110	* 1.5340	* 1.5024	* 3.3961
12	* 1.9704	* 1.6244	* 1.8885	* 1.5091	* 1.6717	* 1.9301	* 1.1340	*
	* 1.4377	* 1.7390	* 1.5170	* 1.9107	* 1.7573	* 1.5175	* 2.3341	*
13	* 1.7467	* 1.7578	* 1.7587	* 1.8912	* 1.9303	* 1.1908	* 0.5635	*
	* 1.6241	* 1.6250	* 1.6330	* 1.5337	* 1.5174	* 2.2491	* 4.6164	*
14	* 1.9735	* 1.9734	* 2.0202	* 1.9314	* 1.1340	* 0.5634	*	*
	* 1.4396	* 1.4450	* 1.4260	* 1.5021	* 2.3336	* 4.6174	*	*
15	* 0.9273	* 0.9254	* 0.8917	* 0.7613	* F-SUB-Q			
	* 2.7533	* 2.7603	* 2.8688	* 3.3944	* M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7487	* 1.4446	* 1.3602	* 1.4969	* 1.9358	* 1.7173	* 1.9431	* 0.9113
	* 1.5012	* 1.8004	* 1.8898	* 1.7210	* 1.3392	* 1.5145	* 1.3406	* 2.5727
9	* 1.4446	* 1.7854	* 1.6230	* 1.8787	* 1.5936	* 1.7291	* 1.9434	* 0.9108
	* 1.8004	* 1.4554	* 1.5918	* 1.3785	* 1.6221	* 1.5131	* 1.3443	* 2.5749
10	* 1.3602	* 1.6236	* 1.3391	* 1.4500	* 1.8547	* 1.7303	* 1.9910	* 0.8767
	* 1.8898	* 1.5912	* 1.9215	* 1.7836	* 1.4112	* 1.5179	* 1.3227	* 2.6727
11	* 1.4969	* 1.8789	* 1.4508	* 1.8873	* 1.4813	* 1.8616	* 1.9036	* 0.7488
	* 1.7210	* 1.3784	* 1.7826	* 1.3909	* 1.7731	* 1.4201	* 1.3889	* 3.1530
12	* 1.9358	* 1.5936	* 1.8551	* 1.4815	* 1.6448	* 1.9018	* 1.1195	*
	* 1.3392	* 1.6222	* 1.4109	* 1.7728	* 1.6342	* 1.4087	* 2.1590	*
13	* 1.7173	* 1.7295	* 1.7307	* 1.8620	* 1.9019	* 1.1732	* 0.5540	*
	* 1.5145	* 1.5128	* 1.5176	* 1.4199	* 1.4086	* 2.0909	* 4.2985	*
14	* 1.9431	* 1.9437	* 1.9914	* 1.9040	* 1.1196	* 0.5539	*	*
	* 1.3406	* 1.3442	* 1.3224	* 1.3886	* 2.1584	* 4.2994	*	*
15	* 0.9113	* 0.9102	* 0.8784	* 0.7496	* F-SUB-Q			
	* 2.5727	* 2.5762	* 2.6695	* 3.1515	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6917	1.4022	1.3275	1.4561	1.8780	1.6726	1.8879	0.8940
	1.5354	1.8388	1.9297	1.7617	1.3760	1.5518	1.3765	2.6215
9	1.4022	1.7291	1.5775	1.8211	1.5497	1.6847	1.8887	0.8939
	1.8388	1.4936	1.6298	1.4142	1.6612	1.5465	1.3792	2.6172
10	1.3275	1.5781	1.3003	1.4095	1.7976	1.6859	1.9371	0.8637
	1.9297	1.6291	1.9704	1.8263	1.4500	1.5510	1.3529	2.7046
11	1.4561	1.8213	1.4103	1.8303	1.4417	1.8078	1.8518	0.7396
	1.7617	1.4140	1.8253	1.4239	1.8091	1.4527	1.4189	3.1826
12	1.8780	1.5496	1.7980	1.4419	1.6015	1.8495	1.1031	
	1.3760	1.6613	1.4497	1.8089	1.6568	1.4309	2.1718	
13	1.6726	1.6851	1.6863	1.8082	1.8496	1.1538	0.5452	
	1.5518	1.5462	1.5507	1.4524	1.4308	2.0975	4.3221	
14	1.8879	1.8890	1.9375	1.8522	1.1031	0.5451		
	1.3765	1.3791	1.3527	1.4186	2.1713	4.3231		
15	0.8940	0.8934	0.8653	0.7403	F-SUB-Q			
	2.6215	2.6177	2.7015	3.1811	M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6694	1.3754	1.2955	1.4270	1.8575	1.6470	1.8720	0.8640
	1.4382	1.7376	1.8349	1.6732	1.2953	1.4688	1.2934	2.5322
9	1.3754	1.7078	1.5513	1.8000	1.5206	1.6594	1.8733	0.8648
	1.7376	1.4017	1.5395	1.3303	1.5759	1.4612	1.2952	2.5281
10	1.2955	1.5520	1.2745	1.3810	1.7763	1.6612	1.9222	0.8317
	1.8349	1.5389	1.8670	1.7319	1.3627	1.4626	1.2660	2.6167
11	1.4270	1.8002	1.3818	1.8089	1.4135	1.7910	1.8368	0.7092
	1.6732	1.3302	1.7308	1.3366	1.7130	1.3607	1.3272	3.0843
12	1.8575	1.5206	1.7767	1.4137	1.5782	1.8331	1.0625	
	1.2953	1.5760	1.3624	1.7128	1.5534	1.3371	2.0940	
13	1.6470	1.6598	1.6615	1.7914	1.8332	1.1169	0.5225	
	1.4688	1.4609	1.4623	1.3604	1.3370	2.0058	4.1883	
14	1.8720	1.8736	1.9226	1.8373	1.0625	0.5223		
	1.2934	1.2951	1.2657	1.3269	2.0935	4.1893		
15	0.8640	0.8642	0.8333	0.7099	F-SUB-Q			
	2.5322	2.5293	2.6134	3.0828	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6107	* 1.3284	* 1.2524	* 1.3788	* 1.7968	* 1.5952	* 1.8126	* 0.8329
	* 1.3921	* 1.6840	* 1.7835	* 1.6285	* 1.2588	* 1.4269	* 1.2563	* 2.4757
9	* 1.3284	* 1.6503	* 1.5014	* 1.7396	* 1.4697	* 1.6075	* 1.8139	* 0.8341
	* 1.6840	* 1.3572	* 1.4941	* 1.2931	* 1.5333	* 1.4179	* 1.2569	* 2.4682
10	* 1.2524	* 1.5021	* 1.2319	* 1.3334	* 1.7147	* 1.6087	* 1.8629	* 0.8021
	* 1.7835	* 1.4934	* 1.8145	* 1.6850	* 1.3249	* 1.4183	* 1.2259	* 2.5541
11	* 1.3788	* 1.7398	* 1.3342	* 1.7481	* 1.3648	* 1.7308	* 1.7782	* 0.6831
	* 1.6285	* 1.2930	* 1.6840	* 1.2953	* 1.6618	* 1.3189	* 1.2845	* 3.0096
12	* 1.7968	* 1.4696	* 1.7150	* 1.3650	* 1.5279	* 1.7751	* 1.0247	
	* 1.2588	* 1.5334	* 1.3246	* 1.6616	* 1.4964	* 1.2893	* 2.0318	
13	* 1.5952	* 1.6079	* 1.6091	* 1.7311	* 1.7752	* 1.0792	* 0.5029	
	* 1.4269	* 1.4175	* 1.4180	* 1.3187	* 1.2892	* 1.9393	* 4.0738	
14	* 1.8126	* 1.8143	* 1.8634	* 1.7786	* 1.0247	* 0.5027		
	* 1.2563	* 1.2567	* 1.2257	* 1.2842	* 2.0313	* 4.0748		
15	* 0.8329	* 0.8334	* 0.8037	* 0.6838	* F-SUB-Q			
	* 2.4757	* 2.4693	* 2.5508	* 3.0080	* M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5090	* 1.2574	* 1.1944	* 1.3073	* 1.6882	* 1.5122	* 1.7013	* 0.7990
	* 1.4076	* 1.6867	* 1.7800	* 1.6317	* 1.2720	* 1.4298	* 1.2712	* 2.4564
9	* 1.2574	* 1.5496	* 1.4230	* 1.6328	* 1.3925	* 1.5240	* 1.7022	* 0.7997
	* 1.6867	* 1.3700	* 1.4963	* 1.3077	* 1.5369	* 1.4197	* 1.2712	* 2.4488
10	* 1.1944	* 1.4237	* 1.1696	* 1.2630	* 1.6060	* 1.5234	* 1.7502	* 0.7733
	* 1.7800	* 1.4956	* 1.8149	* 1.6886	* 1.3410	* 1.4208	* 1.2372	* 2.5196
11	* 1.3073	* 1.6330	* 1.2637	* 1.6414	* 1.2921	* 1.6194	* 1.6674	* 0.6597
	* 1.6317	* 1.3076	* 1.6876	* 1.3071	* 1.6638	* 1.3354	* 1.2978	* 2.9609
12	* 1.6882	* 1.3924	* 1.6063	* 1.2922	* 1.4459	* 1.6678	* 0.9870	
	* 1.2720	* 1.5370	* 1.3407	* 1.6636	* 1.4949	* 1.2974	* 1.9986	
13	* 1.5122	* 1.5243	* 1.5237	* 1.6197	* 1.6679	* 1.0381	* 0.4856	
	* 1.4298	* 1.4194	* 1.4205	* 1.3352	* 1.2973	* 1.9068	* 3.9990	
14	* 1.7013	* 1.7025	* 1.7507	* 1.6678	* 0.9870	* 0.4854		
	* 1.2712	* 1.2710	* 1.2369	* 1.2976	* 1.9981	* 4.0000		
15	* 0.7990	* 0.7991	* 0.7747	* 0.6604	* F-SUB-Q			
	* 2.4564	* 2.4503	* 2.5166	* 2.9594	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4245	1.1931	1.1298	1.2375	1.5968	1.4361	1.6071	0.7466
	1.4284	1.7036	1.8014	1.6527	1.2891	1.4441	1.2899	2.5253
9	1.1931	1.4661	1.3524	1.5431	1.3196	1.4466	1.6077	0.7472
	1.7036	1.3880	1.5103	1.3263	1.5551	1.4333	1.2897	2.5171
10	1.1298	1.3530	1.1122	1.1966	1.5162	1.4460	1.6551	0.7193
	1.8014	1.5095	1.8309	1.7099	1.3603	1.4345	1.2529	2.6008
11	1.2375	1.5433	1.1974	1.5522	1.2233	1.5251	1.5727	0.6101
	1.6527	1.3261	1.7088	1.3235	1.6830	1.3573	1.3174	3.0731
12	1.5968	1.3195	1.5165	1.2234	1.3726	1.5769	0.9162	
	1.2891	1.5552	1.3600	1.6828	1.5062	1.3124	2.0624	
13	1.4361	1.4470	1.4463	1.5254	1.5769	0.9706	0.4513	
	1.4441	1.4330	1.4342	1.3570	1.3123	1.9520	4.1266	
14	1.6071	1.6079	1.6555	1.5730	0.9162	0.4512		
	1.2899	1.2895	1.2526	1.3171	2.0619	4.1276		
15	0.7466	0.7466	0.7207	0.6108	F-SUB-Q			
	2.5253	2.5181	2.5975	3.0714	M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2826	1.0876	1.0235	1.1239	1.4268	1.2979	1.4326	0.6807
	1.5343	1.8086	1.9258	1.7611	1.3954	1.5455	1.4009	2.6856
9	1.0876	1.3126	1.2227	1.3809	1.1985	1.3055	1.4294	0.6809
	1.8086	1.4992	1.6167	1.4336	1.6564	1.5360	1.4040	2.6778
10	1.0235	1.2234	1.0078	1.0903	1.3595	1.3061	1.4735	0.6549
	1.9258	1.6158	1.9568	1.8170	1.4668	1.5356	1.3607	2.7694
11	1.1239	1.3811	1.0909	1.3927	1.1158	1.3612	1.4024	0.5526
	1.7611	1.4334	1.8160	1.4262	1.7842	1.4698	1.4280	3.2896
12	1.4268	1.1985	1.3598	1.1160	1.2409	1.4083	0.8329	
	1.3954	1.6564	1.4665	1.7840	1.6105	1.4201	2.1958	
13	1.2979	1.3058	1.3063	1.3615	1.4083	0.8788	0.4092	
	1.5455	1.5357	1.5353	1.4695	1.4200	2.0862	4.4133	
14	1.4326	1.4296	1.4738	1.4027	0.8329	0.4090		
	1.4009	1.4037	1.3605	1.4277	2.1954	4.4144		
15	0.6807	0.6804	0.6559	0.5532	F-SUB-Q			
	2.6856	2.6789	2.7670	3.2878	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 100 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1419	0.8832	0.8139	0.9047	1.2215	1.0263	1.2201	0.5560
	1.6806	2.1725	2.3647	2.1348	1.5885	1.9052	1.6030	3.2146
9	0.8832	1.1352	0.9789	1.1939	0.9688	1.0317	1.2183	0.5601
	2.1725	1.6922	1.9696	1.6190	1.9989	1.8951	1.6054	3.1830
10	0.8139	0.9794	0.7985	0.8867	1.2100	1.0352	1.2104	0.5348
	2.3647	1.9687	2.4113	2.1793	1.6063	1.8869	1.6153	3.3152
11	0.9047	1.1941	0.8871	1.2099	0.9092	1.2044	1.1443	0.4486
	2.1348	1.6188	2.1783	1.6019	2.1351	1.6170	1.7053	3.9624
12	1.2215	0.9687	1.2102	0.9093	0.9958	1.1576	0.6853	
	1.5885	1.9990	1.6060	2.1349	1.9571	1.6840	2.6061	
13	1.0263	1.0319	1.0354	1.2045	1.1577	0.7088	0.3297	
	1.9052	1.8948	1.8865	1.6168	1.6840	2.5257	5.3597	
14	1.2201	1.2184	1.2106	1.1445	0.6853	0.3296		
	1.6030	1.6052	1.6150	1.7050	2.6057	5.3609		
15	0.5560	0.5597	0.5354	0.4491	F-SUB-Q			
	3.2146	3.1838	3.3140	3.9605	M-SUB-Q			

AT 75% POWER, 100 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.4401	0.3710	0.3481	0.3869	0.4661	0.3960	0.4341	0.2272
	4.2704	5.0708	5.4219	4.8944	4.0738	4.8315	4.4102	7.7229
9	0.3710	0.4317	0.3818	0.4524	0.4033	0.3972	0.4332	0.2281
	5.0708	4.3621	4.9492	4.1839	4.7052	4.8155	4.4194	7.6725
10	0.3481	0.3819	0.3417	0.3814	0.4619	0.4000	0.4277	0.2202
	5.4219	4.9470	5.5301	4.9687	4.1142	4.7674	4.4739	7.9035
11	0.3869	0.4525	0.3816	0.4467	0.3896	0.4539	0.4032	0.1885
	4.8944	4.1833	4.9668	4.2475	4.8848	4.2009	4.7415	9.2604
12	0.4661	0.4033	0.4620	0.3897	0.3809	0.4113	0.2773	
	4.0738	4.7052	4.1136	4.8843	5.0088	4.6408	6.3182	
13	0.3960	0.3973	0.4001	0.4539	0.4113	0.2832	0.1418	
	4.8315	4.8147	4.7667	4.2005	4.6406	6.1973	12.2408	
14	0.4341	0.4332	0.4278	0.4033	0.2773	0.1418		
	4.4101	4.4190	4.4732	4.7406	6.3170	12.2429		
15	0.2272	0.2280	0.2204	0.1887	F-SUB-Q			
	7.7229	7.6728	7.9033	9.2579	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.3263	0.3573	0.3856	0.4329	0.5088	0.4440	0.4682	0.2614
	4.3314	5.0607	5.0605	4.4796	3.8262	4.3659	4.2352	6.8557
9	0.3573	0.4362	0.4153	0.4930	0.4514	0.4386	0.4641	0.2605
	5.0607	4.5087	4.7218	3.9484	4.2951	4.4180	4.2700	6.8617
10	0.3856	0.4154	0.3809	0.4140	0.4822	0.4241	0.4420	0.2449
	5.0605	4.7210	5.2230	4.7070	4.0227	4.5370	4.3844	7.1273
11	0.4329	0.4930	0.4141	0.4423	0.3855	0.4328	0.3995	0.2057
	4.4796	3.9482	4.7064	4.4322	4.9803	4.4357	4.8319	8.4333
12	0.5088	0.4514	0.4822	0.3855	0.3089	0.3392	0.2580	
	3.8262	4.2949	4.0224	4.9799	4.9563	4.7671	6.3995	
13	0.4440	0.4386	0.4242	0.4329	0.3393	0.2180	0.1333	
	4.3659	4.4178	4.5365	4.4353	4.7670	5.9871	11.0517	
14	0.4682	0.4642	0.4421	0.3995	0.2580	0.1333		
	4.2352	4.2697	4.3837	4.8311	6.3979	11.0533		
15	0.2614	0.2604	0.2452	0.2059	F-SUB-Q			
	6.8557	6.8606	7.1236	8.4314	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.7686	0.7906	0.8367	0.9396	1.1943	1.0406	1.1675	0.6128
	1.9053	2.3447	2.4049	2.1309	1.6835	1.9198	1.7472	3.0118
9	0.7906	1.0356	0.9735	1.1613	0.9991	1.0363	1.1583	0.6094
	2.3447	1.9483	2.0720	1.7293	2.0038	1.9346	1.7452	2.9897
10	0.8367	0.9736	0.8265	0.8986	1.1364	0.9973	1.1104	0.5701
	2.4049	2.0718	2.4606	2.2293	1.7615	1.9923	1.7990	3.1504
11	0.9396	1.1613	0.8988	1.0750	0.8371	1.0327	0.9953	0.4725
	2.1309	1.7293	2.2290	1.8604	2.3324	1.9000	1.9969	3.7904
12	1.1943	0.9991	1.1365	0.8372	0.7232	0.8489	0.6096	
	1.6835	2.0037	1.7614	2.3322	2.1360	1.9432	2.7719	
13	1.0406	1.0364	0.9975	1.0328	0.8490	0.5164	0.3028	
	1.9198	1.9345	1.9920	1.8999	1.9432	2.5839	4.9863	
14	1.1675	1.1584	1.1106	0.9954	0.6097	0.3028		
	1.7472	1.7451	1.7987	1.9966	2.7712	4.9872		
15	0.6128	0.6092	0.5708	0.4728	F-SUB-Q			
	3.0118	2.9894	3.1491	3.7893	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.9339	* 0.9750	* 1.0351	* 1.1605	* 1.4185	* 1.2951	* 1.3892	* 0.7592
	* 1.6814	* 1.9589	* 1.9922	* 1.7681	* 1.4481	* 1.5749	* 1.4796	* 2.4484
9	* 0.9750	* 1.2249	* 1.1974	* 1.3732	* 1.2286	* 1.2882	* 1.3785	* 0.7532
	* 1.9589	* 1.6912	* 1.7230	* 1.4969	* 1.6685	* 1.5852	* 1.4886	* 2.4592
10	* 1.0351	* 1.1975	* 1.0252	* 1.1057	* 1.3310	* 1.2448	* 1.3457	* 0.7082
	* 1.9922	* 1.7229	* 2.0120	* 1.8536	* 1.5403	* 1.6331	* 1.5184	* 2.5901
11	* 1.1605	* 1.3732	* 1.1059	* 1.2650	* 1.0292	* 1.2157	* 1.2236	* 0.5908
	* 1.7681	* 1.4968	* 1.8532	* 1.6149	* 1.9384	* 1.6575	* 1.6649	* 3.1068
12	* 1.4185	* 1.2287	* 1.3311	* 1.0293	* 0.8942	* 1.0356	* 0.7595	
	* 1.4481	* 1.6684	* 1.5402	* 1.9382	* 1.7802	* 1.6389	* 2.2780	
13	* 1.2951	* 1.2883	* 1.2450	* 1.2159	* 1.0357	* 0.6416	* 0.3809	
	* 1.5749	* 1.5851	* 1.6328	* 1.6573	* 1.6389	* 2.1422	* 4.0729	
14	* 1.3892	* 1.3786	* 1.3459	* 1.2238	* 0.7596	* 0.3808		
	* 1.4796	* 1.4885	* 1.5182	* 1.6646	* 2.2774	* 4.0736		
15	* 0.7592	* 0.7530	* 0.7091	* 0.5913	* F-SUB-Q			
	* 2.4484	* 2.4590	* 2.5888	* 3.1058	* M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0774	* 1.0878	* 1.1514	* 1.2955	* 1.6294	* 1.4558	* 1.6044	* 0.8328
	* 1.5074	* 1.8096	* 1.8448	* 1.6291	* 1.2941	* 1.4338	* 1.3090	* 2.2810
9	* 1.0878	* 1.4078	* 1.3444	* 1.5792	* 1.3731	* 1.4476	* 1.5930	* 0.8248
	* 1.8096	* 1.5146	* 1.5799	* 1.3377	* 1.5348	* 1.4452	* 1.3176	* 2.2968
10	* 1.1514	* 1.3444	* 1.1423	* 1.2355	* 1.5329	* 1.4063	* 1.5528	* 0.7756
	* 1.8448	* 1.5799	* 1.8580	* 1.7080	* 1.3763	* 1.4853	* 1.3502	* 2.4270
11	* 1.2955	* 1.5793	* 1.2358	* 1.4578	* 1.1552	* 1.4156	* 1.4201	* 0.6482
	* 1.6291	* 1.3377	* 1.7077	* 1.4400	* 1.7793	* 1.4697	* 1.4751	* 2.9155
12	* 1.6294	* 1.3732	* 1.5331	* 1.1553	* 1.0049	* 1.2030	* 0.8441	
	* 1.2941	* 1.5347	* 1.3762	* 1.7791	* 1.6243	* 1.4605	* 2.1191	
13	* 1.4558	* 1.4477	* 1.4066	* 1.4158	* 1.2031	* 0.7169	* 0.4187	
	* 1.4338	* 1.4451	* 1.4851	* 1.4696	* 1.4605	* 1.9960	* 3.8493	
14	* 1.6044	* 1.5931	* 1.5530	* 1.4204	* 0.8442	* 0.4186		
	* 1.3090	* 1.3175	* 1.3500	* 1.4748	* 2.1185	* 3.8500		
15	* 0.8328	* 0.8246	* 0.7766	* 0.6488	* F-SUB-Q			
	* 2.2810	* 2.2967	* 2.4255	* 2.9144	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 20 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1631	1.1498	1.2128	1.3640	1.7392	1.5351	1.7193	0.8777
	1.4609	1.7821	1.8155	1.5970	1.2502	1.4030	1.2585	2.2325
9	1.1498	1.5046	1.4180	1.6872	1.4474	1.5260	1.7086	0.8716
	1.7821	1.4709	1.5525	1.2927	1.5025	1.4156	1.2667	2.2432
10	1.2128	1.4180	1.1987	1.3056	1.6452	1.4926	1.6703	0.8211
	1.8155	1.5524	1.8375	1.6724	1.3246	1.4443	1.2951	2.3685
11	1.3640	1.6872	1.3060	1.5678	1.2329	1.5384	1.5394	0.6892
	1.5970	1.2926	1.6720	1.3906	1.7390	1.4089	1.4088	2.8314
12	1.7392	1.4475	1.6454	1.2330	1.0780	1.3149	0.9105	
	1.2502	1.5025	1.3245	1.7388	1.5881	1.4074	2.0575	
13	1.5351	1.5261	1.4929	1.5387	1.3150	0.7769	0.4490	
	1.4030	1.4155	1.4440	1.4088	1.4073	1.9543	3.7939	
14	1.7193	1.7087	1.6706	1.5396	0.9106	0.4489		
	1.2585	1.2666	1.2948	1.4085	2.0570	3.7947		
15	0.8777	0.8713	0.8221	0.6898	F-SUB-Q			
	2.2325	2.2432	2.3671	2.8303	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 19 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2420	1.1995	1.2546	1.4036	1.7984	1.5784	1.7841	0.9067
	1.4683	1.8051	1.8321	1.6140	1.2534	1.4092	1.2525	2.2334
9	1.1995	1.5672	1.4623	1.7482	1.4896	1.5705	1.7748	0.9025
	1.8051	1.4792	1.5716	1.2977	1.5172	1.4212	1.2598	2.2391
10	1.2546	1.4624	1.2328	1.3498	1.7149	1.5472	1.7434	0.8537
	1.8321	1.5714	1.8654	1.6891	1.3263	1.4497	1.2890	2.3607
11	1.4036	1.7483	1.3502	1.6489	1.2952	1.6254	1.6221	0.7230
	1.6140	1.2977	1.6887	1.3879	1.7441	1.3985	1.4028	2.8200
12	1.7984	1.4897	1.7151	1.2953	1.1626	1.4147	0.9706	
	1.2534	1.5171	1.3262	1.7439	1.5995	1.4051	2.0476	
13	1.5784	1.5706	1.5475	1.6257	1.4148	0.8464	0.4807	
	1.4092	1.4211	1.4495	1.3983	1.4050	1.9648	3.8221	
14	1.7841	1.7749	1.7437	1.6224	0.9706	0.4806		
	1.2525	1.2597	1.2888	1.4025	2.0471	3.8228		
15	0.9067	0.9022	0.8547	0.7236	F-SUB-Q			
	2.2334	2.2391	2.3595	2.8190	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3927	1.2597	1.2838	1.4376	1.8572	1.6183	1.8471	0.9228
	1.4819	1.8367	1.8925	1.6572	1.2728	1.4353	1.2617	2.2883
9	1.2597	1.6382	1.5057	1.8090	1.5268	1.6123	1.8397	0.9185
	1.8367	1.4902	1.6138	1.3198	1.5555	1.4471	1.2693	2.2957
10	1.2838	1.5059	1.2658	1.3905	1.7872	1.6005	1.8172	0.8717
	1.8925	1.6137	1.9226	1.7336	1.3446	1.4754	1.2992	2.4238
11	1.4376	1.8091	1.3909	1.7409	1.3633	1.7217	1.7096	0.7411
	1.6572	1.3198	1.7332	1.3877	1.7566	1.3914	1.4146	2.9071
12	1.8572	1.5268	1.7874	1.3634	1.3043	1.5533	1.0234	
	1.2728	1.5554	1.3445	1.7564	1.6192	1.4097	2.0790	
13	1.6183	1.6125	1.6008	1.7220	1.5533	0.9477	0.5114	
	1.4353	1.4469	1.4751	1.3912	1.4097	2.0074	3.9272	
14	1.8471	1.8398	1.8175	1.7099	1.0234	0.5113		
	1.2617	1.2692	1.2989	1.4143	2.0786	3.9280		
15	0.9228	0.9181	0.8727	0.7417	F-SUB-Q			
	2.2883	2.2958	2.4225	2.9060	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6198	1.3307	1.3061	1.4588	1.8918	1.6416	1.8850	0.9338
	1.5183	1.8927	1.9866	1.7350	1.3237	1.4930	1.3035	2.3833
9	1.3307	1.6917	1.5355	1.8470	1.5497	1.6422	1.8796	0.9304
	1.8927	1.5294	1.6910	1.3745	1.6266	1.5046	1.3114	2.3899
10	1.3061	1.5357	1.2882	1.4209	1.8379	1.6375	1.8672	0.8863
	1.9866	1.6908	2.0199	1.8146	1.3965	1.5335	1.3421	2.5242
11	1.4588	1.8471	1.4214	1.8141	1.4217	1.8014	1.7763	0.7580
	1.7350	1.3744	1.8141	1.4188	1.8015	1.4158	1.4445	3.0310
12	1.8918	1.5497	1.8381	1.4218	1.4449	1.6967	1.0741	
	1.3237	1.6266	1.3963	1.8013	1.6547	1.4321	2.1250	
13	1.6416	1.6424	1.6378	1.8016	1.6968	1.0539	0.5424	
	1.4930	1.5045	1.5333	1.4157	1.4321	2.0614	4.0381	
14	1.8850	1.8797	1.8675	1.7766	1.0742	0.5423		
	1.3035	1.3113	1.3418	1.4443	2.1245	4.0389		
15	0.9338	0.9301	0.8873	0.7587	F-SUB-Q			
	2.3833	2.3900	2.5229	3.0300	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 16 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7355	1.3944	1.3225	1.4762	1.9245	1.6617	1.9201	0.9399
	1.5825	1.9807	2.1108	1.8363	1.3901	1.5700	1.3613	2.5175
9	1.3944	1.7475	1.5618	1.8827	1.5691	1.6682	1.9164	0.9354
	1.9807	1.5904	1.7893	1.4454	1.7193	1.5818	1.3696	2.5286
10	1.3225	1.5621	1.3078	1.4462	1.8876	1.6704	1.9134	0.8950
	2.1108	1.7890	2.1425	1.9203	1.4595	1.6116	1.4014	2.6679
11	1.4762	1.8828	1.4467	1.8802	1.4674	1.8722	1.8355	0.7685
	1.8363	1.4453	1.9197	1.4676	1.8737	1.4598	1.4804	3.2097
12	1.9245	1.5691	1.8879	1.4676	1.5480	1.8022	1.1107	
	1.3901	1.7193	1.4593	1.8735	1.7198	1.4778	2.2143	
13	1.6617	1.6685	1.6708	1.8724	1.8022	1.1204	0.5647	
	1.5700	1.5817	1.6113	1.4596	1.4778	2.1529	4.2252	
14	1.9201	1.9165	1.9138	1.8358	1.1107	0.5646		
	1.3613	1.3695	1.4011	1.4802	2.2138	4.2261		
15	0.9399	0.9350	0.8960	0.7692	F-SUB-Q			
	2.5175	2.5288	2.6666	3.2085	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7571	1.4108	1.3336	1.4727	1.9132	1.6546	1.9097	0.9471
	1.6946	2.1103	2.2403	1.9829	1.5039	1.6888	1.4662	2.6746
9	1.4108	1.7567	1.5603	1.8727	1.5649	1.6663	1.9076	0.9470
	2.1103	1.6951	1.9091	1.5663	1.8560	1.7017	1.4750	2.6744
10	1.3336	1.5606	1.3103	1.4487	1.8924	1.6775	1.9118	0.9089
	2.2403	1.9087	2.2680	2.0371	1.5462	1.7189	1.5091	2.8200
11	1.4727	1.8728	1.4492	1.8895	1.4818	1.8854	1.8454	0.7866
	1.9829	1.5662	2.0366	1.5524	1.9727	1.5400	1.5627	3.3268
12	1.9132	1.5648	1.8926	1.4819	1.5795	1.8318	1.1440	
	1.5039	1.8560	1.5460	1.9726	1.8304	1.5726	2.2995	
13	1.6546	1.6665	1.6778	1.8856	1.8319	1.1611	0.5848	
	1.6888	1.7016	1.7185	1.5399	1.5725	2.2626	4.4142	
14	1.9097	1.9077	1.9121	1.8456	1.1440	0.5847		
	1.4662	1.4750	1.5089	1.5625	2.2991	4.4151		
15	0.9471	0.9466	0.9099	0.7872	F-SUB-Q			
	2.6746	2.6746	2.8187	3.3257	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8050	1.4345	1.3357	1.4857	1.9484	1.6737	1.9497	0.9439
	1.7647	2.2189	2.3871	2.1243	1.5942	1.7980	1.5457	2.8852
9	1.4345	1.8002	1.5806	1.9100	1.5802	1.6891	1.9496	0.9419
	2.2189	1.7682	2.0111	1.6523	1.9857	1.8108	1.5548	2.8914
10	1.3357	1.5810	1.3192	1.4659	1.9403	1.7088	1.9590	0.9050
	2.3871	2.0106	2.4071	2.1469	1.6097	1.7994	1.5718	3.0498
11	1.4857	1.9101	1.4663	1.9384	1.5062	1.9396	1.8965	0.7815
	2.1243	1.6522	2.1464	1.6163	2.0727	1.5972	1.6219	3.5662
12	1.9484	1.5802	1.9406	1.5064	1.6198	1.8916	1.1505	
	1.5942	1.9857	1.6095	2.0725	1.9076	1.6261	2.4407	
13	1.6737	1.6893	1.7091	1.9398	1.8917	1.1733	0.5859	
	1.7980	1.8106	1.7991	1.5970	1.6261	2.3955	4.7017	
14	1.9497	1.9498	1.9593	1.8968	1.1505	0.5858		
	1.5457	1.5547	1.5716	1.6217	2.4402	4.7027		
15	0.9439	0.9415	0.9060	0.7822	F-SUB-Q			
	2.8852	2.8918	3.0483	3.5649	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8143	1.4371	1.3352	1.4842	1.9516	1.6737	1.9567	0.9426
	1.8165	2.2785	2.4405	2.1862	1.6663	1.9243	1.6616	3.1131
9	1.4371	1.8077	1.5812	1.9145	1.5791	1.6918	1.9591	0.9419
	2.2785	1.8146	2.0625	1.7011	2.0549	1.9140	1.6635	3.1157
10	1.3352	1.5816	1.3176	1.4683	1.9519	1.7165	1.9712	0.9060
	2.4405	2.0620	2.4738	2.2193	1.6756	1.8916	1.6562	3.2470
11	1.4842	1.9146	1.4687	1.9500	1.5120	1.9557	1.9125	0.7839
	2.1862	1.7010	2.2186	1.6796	2.1628	1.6763	1.7128	3.7792
12	1.9516	1.5790	1.9521	1.5122	1.6320	1.9115	1.1583	
	1.6663	2.0549	1.6754	2.1626	2.0239	1.7243	2.5864	
13	1.6737	1.6921	1.7169	1.9559	1.9115	1.1816	0.5884	
	1.9243	1.9137	1.8913	1.6761	1.7243	2.5486	5.0117	
14	1.9567	1.9593	1.9715	1.9128	1.1583	0.5882		
	1.6616	1.6634	1.6559	1.7126	2.5859	5.0128		
15	0.9426	0.9415	0.9071	0.7846	F-SUB-Q			
	3.1131	3.1161	3.2454	3.7780	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7934	1.4244	1.3317	1.4696	1.9288	1.6580	1.9360	0.9420
	1.8142	2.2691	2.4090	2.1717	1.6577	1.9073	1.6496	3.0743
9	1.4244	1.7860	1.5650	1.8906	1.5634	1.6776	1.9401	0.9437
	2.2691	1.8122	2.0523	1.6959	2.0416	1.9004	1.6523	3.0641
10	1.3317	1.5655	1.3124	1.4566	1.9328	1.7048	1.9538	0.9103
	2.4090	2.0517	2.4499	2.2049	1.6688	1.8782	1.6465	3.1798
11	1.4696	1.8908	1.4571	1.9309	1.5024	1.9399	1.8996	0.7909
	2.1717	1.6958	2.2042	1.6735	2.1473	1.6683	1.7020	3.6916
12	1.9288	1.5634	1.9330	1.5025	1.6227	1.8989	1.1672	
	1.6576	2.0416	1.6686	2.1471	2.0125	1.7161	2.5357	
13	1.6580	1.6779	1.7052	1.9401	1.8990	1.1881	0.5925	
	1.9073	1.9002	1.8779	1.6681	1.7161	2.5102	4.9462	
14	1.9360	1.9403	1.9541	1.8999	1.1672	0.5923		
	1.6496	1.6522	1.6463	1.7018	2.5352	4.9473		
15	0.9420	0.9432	0.9113	0.7915	F-SUB-Q			
	3.0743	3.0645	3.1785	3.6903	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8117	1.4264	1.3213	1.4702	1.9471	1.6643	1.9609	0.9319
	1.7429	2.1833	2.3394	2.1028	1.5984	1.8436	1.5815	2.9993
9	1.4264	1.8035	1.5696	1.9095	1.5653	1.6860	1.9667	0.9318
	2.1833	1.7359	1.9773	1.6309	1.9787	1.8411	1.5878	2.9995
10	1.3213	1.5702	1.3028	1.4590	1.9567	1.7177	1.9823	0.8988
	2.3394	1.9767	2.3714	2.1380	1.6128	1.8235	1.5848	3.1209
11	1.4702	1.9096	1.4594	1.9537	1.5073	1.9678	1.9288	0.7777
	2.1028	1.6308	2.1373	1.6188	2.0914	1.6141	1.6437	3.6329
12	1.9471	1.5652	1.9569	1.5074	1.6355	1.9286	1.1569	
	1.5984	1.9788	1.6126	2.0912	1.9609	1.6610	2.4946	
13	1.6643	1.6863	1.7180	1.9680	1.9287	1.1788	0.5829	
	1.8436	1.8408	1.8231	1.6139	1.6610	2.4642	4.8367	
14	1.9609	1.9669	1.9826	1.9290	1.1569	0.5827		
	1.5815	1.5877	1.5845	1.6434	2.4942	4.8378		
15	0.9319	0.9312	0.8998	0.7783	F-SUB-Q			
	2.9993	3.0000	3.1195	3.6318	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8070	1.4176	1.3099	1.4608	1.9424	1.6573	1.9613	0.9232
	1.5874	1.9970	2.1529	1.9366	1.4718	1.7080	1.4616	2.7810
9	1.4176	1.7983	1.5609	1.9049	1.5558	1.6802	1.9684	0.9241
	1.9970	1.5828	1.8136	1.4964	1.8249	1.7010	1.4649	2.7818
10	1.3099	1.5615	1.2925	1.4508	1.9555	1.7147	1.9854	0.8909
	2.1529	1.8130	2.1804	1.9619	1.4748	1.6742	1.4566	2.8831
11	1.4608	1.9050	1.4513	1.9515	1.5008	1.9711	1.9338	0.7704
	1.9366	1.4963	1.9613	1.4752	1.9129	1.4721	1.4998	3.3498
12	1.9424	1.5557	1.9557	1.5009	1.6323	1.9326	1.1494	
	1.4718	1.8249	1.4746	1.9127	1.7894	1.5099	2.2861	
13	1.6573	1.6805	1.7151	1.9713	1.9326	1.1710	0.5761	
	1.7080	1.7008	1.6739	1.4720	1.5099	2.2604	4.4589	
14	1.9613	1.9686	1.9856	1.9341	1.1494	0.5759		
	1.4616	1.4648	1.4564	1.4996	2.2856	4.4599		
15	0.9232	0.9234	0.8920	0.7711	F-SUB-Q			
	2.7810	2.7827	2.8818	3.3485	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7891	1.4022	1.2983	1.4450	1.9254	1.6418	1.9463	0.9145
	1.4717	1.8554	2.0003	1.7985	1.3618	1.5851	1.3538	2.5842
9	1.4022	1.7805	1.5451	1.8868	1.5393	1.6655	1.9543	0.9161
	1.8554	1.4683	1.6867	1.3897	1.6937	1.5771	1.3553	2.5770
10	1.2983	1.5457	1.2773	1.4358	1.9391	1.7009	1.9723	0.8847
	2.0003	1.6861	2.0317	1.8233	1.3677	1.5533	1.3499	2.6700
11	1.4450	1.8869	1.4362	1.9350	1.4866	1.9582	1.9222	0.7659
	1.7986	1.3896	1.8228	1.3672	1.7756	1.3627	1.3872	3.1050
12	1.9254	1.5392	1.9394	1.4867	1.6191	1.9200	1.1435	
	1.3618	1.6938	1.3675	1.7755	1.6557	1.3945	2.1117	
13	1.6418	1.6658	1.7013	1.9584	1.9201	1.1633	0.5711	
	1.5851	1.5769	1.5530	1.3625	1.3944	2.0884	4.1345	
14	1.9463	1.9545	1.9726	1.9225	1.1435	0.5709		
	1.3538	1.3553	1.3498	1.3870	2.1114	4.1354		
15	0.9145	0.9155	0.8857	0.7665	F-SUB-Q			
	2.5842	2.5775	2.6689	3.1039	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7520	* 1.3781	* 1.2851	* 1.4208	* 1.8874	* 1.6148	* 1.9098	* 0.9061
	* 1.5027	* 1.8901	* 2.0196	* 1.8268	* 1.3876	* 1.6131	* 1.3801	* 2.6138
9	* 1.3781	* 1.7440	* 1.5182	* 1.8487	* 1.5132	* 1.6386	* 1.9183	* 0.9091
	* 1.8901	* 1.5006	* 1.7163	* 1.4144	* 1.7210	* 1.6012	* 1.3793	* 2.5995
10	* 1.2851	* 1.5188	* 1.2667	* 1.4118	* 1.9011	* 1.6736	* 1.9368	* 0.8801
	* 2.0196	* 1.7156	* 2.0607	* 1.8558	* 1.3963	* 1.5802	* 1.3714	* 2.6823
11	* 1.4208	* 1.8489	* 1.4123	* 1.8972	* 1.4627	* 1.9226	* 1.8894	* 0.7640
	* 1.8268	* 1.4143	* 1.8551	* 1.3964	* 1.8080	* 1.3895	* 1.4130	* 3.1162
12	* 1.8874	* 1.5131	* 1.9014	* 1.4628	* 1.5926	* 1.8854	* 1.1385	
	* 1.3876	* 1.7211	* 1.3962	* 1.8078	* 1.6827	* 1.4192	* 2.1238	
13	* 1.6148	* 1.6388	* 1.6739	* 1.9228	* 1.8854	* 1.1560	* 0.5678	
	* 1.6131	* 1.6010	* 1.5800	* 1.3894	* 1.4191	* 2.1018	* 4.1683	
14	* 1.9098	* 1.9185	* 1.9371	* 1.8897	* 1.1385	* 0.5677		
	* 1.3801	* 1.3792	* 1.3712	* 1.4128	* 2.1234	* 4.1693		
15	* 0.9061	* 0.9086	* 0.8811	* 0.7647	* F-SUB-Q			
	* 2.6138	* 2.6000	* 2.6813	* 3.1150	* M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7520	* 1.3663	* 1.2621	* 1.4081	* 1.8881	* 1.6057	* 1.9150	* 0.8852
	* 1.3968	* 1.7754	* 1.9174	* 1.7212	* 1.2951	* 1.5166	* 1.2861	* 2.5041
9	* 1.3663	* 1.7444	* 1.5094	* 1.8498	* 1.5009	* 1.6302	* 1.9241	* 0.8881
	* 1.7754	* 1.3970	* 1.6088	* 1.3184	* 1.6202	* 1.5024	* 1.2832	* 2.4932
10	* 1.2621	* 1.5100	* 1.2421	* 1.3987	* 1.9026	* 1.6670	* 1.9435	* 0.8571
	* 1.9174	* 1.6081	* 1.9480	* 1.7440	* 1.2980	* 1.4762	* 1.2733	* 2.5731
11	* 1.4081	* 1.8499	* 1.3992	* 1.8983	* 1.4502	* 1.9285	* 1.8956	* 0.7397
	* 1.7212	* 1.3183	* 1.7435	* 1.2985	* 1.6974	* 1.2890	* 1.3099	* 2.9989
12	* 1.8881	* 1.5008	* 1.9028	* 1.4503	* 1.5862	* 1.8911	* 1.1108	
	* 1.2951	* 1.6203	* 1.2978	* 1.6972	* 1.5723	* 1.3195	* 2.0312	
13	* 1.6057	* 1.6305	* 1.6673	* 1.9287	* 1.8911	* 1.1308	* 0.5499	
	* 1.5166	* 1.5022	* 1.4759	* 1.2888	* 1.3195	* 2.0050	* 4.0243	
14	* 1.9150	* 1.9243	* 1.9438	* 1.8959	* 1.1108	* 0.5498		
	* 1.2861	* 1.2831	* 1.2731	* 1.3097	* 2.0307	* 4.0253		
15	* 0.8852	* 0.8874	* 0.8581	* 0.7404	* F-SUB-Q			
	* 2.5041	* 2.4943	* 2.5720	* 2.9977	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7134	1.3363	1.2348	1.3774	1.8491	1.5733	1.8772	0.8635
	1.3369	1.7034	1.8478	1.6600	1.2468	1.4609	1.2375	2.4259
9	1.3363	1.7075	1.4787	1.8110	1.4687	1.5976	1.8863	0.8667
	1.7034	1.3397	1.5474	1.2689	1.5619	1.4456	1.2334	2.4126
10	1.2348	1.4794	1.2146	1.3671	1.8612	1.6328	1.9053	0.8365
	1.8478	1.5467	1.8777	1.6795	1.2475	1.4178	1.2227	2.4885
11	1.3774	1.8111	1.3676	1.8577	1.4175	1.8880	1.8583	0.7210
	1.6600	1.2688	1.6790	1.2462	1.6321	1.2363	1.2552	2.8997
12	1.8491	1.4686	1.8614	1.4176	1.5537	1.8529	1.0844	
	1.2468	1.5620	1.2474	1.6320	1.5020	1.2611	1.9525	
13	1.5733	1.5979	1.6332	1.8883	1.8530	1.1055	0.5353	
	1.4609	1.4454	1.4176	1.2362	1.2611	1.9220	3.8814	
14	1.8772	1.8865	1.9056	1.8586	1.0845	0.5351		
	1.2375	1.2333	1.2225	1.2550	1.9521	3.8824		
15	0.8635	0.8660	0.8375	0.7217	F-SUB-Q			
	2.4259	2.4137	2.4873	2.8984	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6253	1.2820	1.1980	1.3223	1.7587	1.5103	1.7838	0.8380
	1.3380	1.6877	1.8147	1.6475	1.2480	1.4499	1.2398	2.3851
9	1.2820	1.6224	1.4193	1.7205	1.4096	1.5327	1.7920	0.8409
	1.6877	1.3399	1.5349	1.2712	1.5501	1.4344	1.2352	2.3708
10	1.1980	1.4200	1.1777	1.3108	1.7641	1.5627	1.8097	0.8154
	1.8147	1.5342	1.8516	1.6665	1.2508	1.4083	1.2242	2.4339
11	1.3223	1.7206	1.3113	1.7637	1.3579	1.7871	1.7639	0.7049
	1.6475	1.2711	1.6660	1.2470	1.6194	1.2400	1.2557	2.8250
12	1.7587	1.4095	1.7643	1.3580	1.4874	1.7581	1.0554	
	1.2480	1.5502	1.2506	1.6193	1.4878	1.2597	1.9056	
13	1.5103	1.5330	1.5630	1.7873	1.7582	1.0762	0.5225	
	1.4499	1.4342	1.4081	1.2399	1.2597	1.8730	3.7801	
14	1.7838	1.7922	1.8100	1.7642	1.0554	0.5223		
	1.2398	1.2351	1.2240	1.2555	1.9053	3.7811		
15	0.8380	0.8405	0.8163	0.7055	F-SUB-Q			
	2.3851	2.3713	2.4329	2.8239	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5479	1.2251	1.1349	1.2620	1.6769	1.4459	1.7002	0.7892
	1.3485	1.6968	1.8424	1.6598	1.2574	1.4556	1.2495	2.4383
9	1.2251	1.5483	1.3603	1.6406	1.3470	1.4669	1.7074	0.7910
	1.6968	1.3484	1.5394	1.2808	1.5593	1.4399	1.2448	2.4258
10	1.1349	1.3610	1.1180	1.2496	1.6781	1.4931	1.7267	0.7642
	1.8424	1.5386	1.8692	1.6794	1.2619	1.4148	1.2321	2.4989
11	1.2620	1.6407	1.2500	1.6802	1.2926	1.6962	1.6779	0.6563
	1.6598	1.2807	1.6789	1.2562	1.6330	1.2530	1.2664	2.9186
12	1.6769	1.3469	1.6783	1.2927	1.4225	1.6739	0.9876	
	1.2574	1.5594	1.2617	1.6328	1.4918	1.2682	1.9551	
13	1.4459	1.4672	1.4934	1.6964	1.6739	1.0140	0.4888	
	1.4556	1.4396	1.4145	1.2528	1.2682	1.9072	3.8839	
14	1.7002	1.7076	1.7270	1.6781	0.9876	0.4886		
	1.2495	1.2447	1.2319	1.2662	1.9548	3.8849		
15	0.7892	0.7904	0.6569	F-SUB-Q				
	2.4383	2.4270	2.4977	2.9174	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3839	1.1161	1.0300	1.1474	1.4980	1.3110	1.5128	0.7183
	1.4612	1.8053	1.9657	1.7701	1.3641	1.5561	1.3607	2.6015
9	1.1161	1.3838	1.2353	1.4646	1.2239	1.3292	1.5178	0.7197
	1.8053	1.4621	1.6434	1.3905	1.6635	1.5396	1.3566	2.5890
10	1.0300	1.2359	1.0182	1.1357	1.4972	1.3511	1.5389	0.6946
	1.9657	1.6426	1.9911	1.7905	1.3693	1.5141	1.3386	2.6690
11	1.1474	1.4647	1.1361	1.5003	1.1754	1.5063	1.4933	0.5934
	1.7701	1.3904	1.7900	1.3625	1.7395	1.3638	1.3777	3.1340
12	1.4980	1.2238	1.4974	1.1755	1.2892	1.4913	0.8943	
	1.3641	1.6636	1.3691	1.7394	1.5937	1.3779	2.0928	
13	1.3110	1.3294	1.3513	1.5065	1.4913	0.9204	0.4437	
	1.5561	1.5394	1.5138	1.3636	1.3779	2.0361	4.1550	
14	1.5128	1.5179	1.5392	1.4935	0.8943	0.4435		
	1.3607	1.3565	1.3384	1.3775	2.0925	4.1562		
15	0.7183	0.7191	0.6955	0.5940	F-SUB-Q			
	2.6015	2.5901	2.6678	3.1325	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 175 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1626	0.8995	0.8242	0.9189	1.2303	1.0396	1.2383	0.5810
	1.6981	2.1874	2.4001	2.1577	1.6192	1.9147	1.6227	3.1463
9	0.8995	1.1495	0.9887	1.2100	0.9835	1.0512	1.2405	0.5861
	2.1874	1.7187	2.0050	1.6430	2.0205	1.8992	1.6201	3.1098
10	0.8242	0.9892	0.8121	0.9159	1.2496	1.0715	1.2408	0.5620
	2.4001	2.0041	2.4390	2.1681	1.6003	1.8613	1.6195	3.2268
11	0.9189	1.2101	0.9162	1.2457	0.9472	1.2527	1.1968	0.4778
	2.1577	1.6428	2.1675	1.6009	2.1061	1.5996	1.6771	3.8085
12	1.2303	0.9835	1.2497	0.9472	1.0347	1.2064	0.7232	
	1.6192	2.0206	1.6002	2.1059	1.9373	1.6618	2.5282	
13	1.0396	1.0514	1.0717	1.2528	1.2064	0.7409	0.3567	
	1.9147	1.8989	1.8611	1.5995	1.6618	2.4710	5.0603	
14	1.2383	1.2406	1.2410	1.1970	0.7232	0.3565		
	1.6227	1.6199	1.6193	1.6769	2.5278	5.0615		
15	0.5810	0.5857	0.5626	0.4782	F-SUB-Q			
	3.1463	3.1107	3.2259	3.8070	M-SUB-Q			

AT 75% POWER, 175 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.4558	0.3835	0.3601	0.3992	0.4802	0.4103	0.4530	0.2402
	4.2400	5.0272	5.3854	4.8680	4.0642	4.7452	4.3402	7.4684
9	0.3835	0.4454	0.3940	0.4690	0.4164	0.4139	0.4529	0.2416
	5.0272	4.3456	4.9280	4.1498	4.6739	4.7168	4.3416	7.4037
10	0.3601	0.3942	0.3556	0.3986	0.4846	0.4210	0.4512	0.2343
	5.3854	4.9260	5.4604	4.8814	4.0368	4.6255	4.3583	7.5956
11	0.3992	0.4691	0.3987	0.4696	0.4106	0.4812	0.4312	0.2031
	4.8680	4.1494	4.8805	4.1556	4.7594	4.0745	4.5574	8.7939
12	0.4802	0.4164	0.4846	0.4106	0.4046	0.4398	0.2960	
	4.0642	4.6740	4.0364	4.7590	4.8479	4.4622	6.0557	
13	0.4103	0.4140	0.4210	0.4813	0.4398	0.3018	0.1553	
	4.7452	4.7162	4.6251	4.0742	4.4622	5.9442	11.4125	
14	0.4530	0.4529	0.4512	0.4313	0.2960	0.1553		
	4.3402	4.3413	4.3577	4.5569	6.0547	11.4146		
15	0.2402	0.2415	0.2344	0.2033	F-SUB-Q			
	7.4684	7.4042	7.5958	8.7921	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.3485	* 0.3848	* 0.4181	* 0.4684	* 0.5505	* 0.4837	* 0.5134	* 0.2912
	* 4.1018	* 4.7296	* 4.7354	* 4.1978	* 3.6505	* 4.0674	* 3.9886	* 6.3275
9	* 0.3848	* 0.4697	* 0.4495	* 0.5331	* 0.4894	* 0.4794	* 0.5094	* 0.2901
	* 4.7296	* 4.2997	* 4.4197	* 3.7643	* 4.0160	* 4.1048	* 4.0163	* 6.3348
10	* 0.4181	* 0.4496	* 0.4148	* 0.4500	* 0.5250	* 0.4646	* 0.4881	* 0.2737
	* 4.7354	* 4.4188	* 4.8614	* 4.3829	* 3.8071	* 4.1885	* 4.0953	* 6.5582
11	* 0.4684	* 0.5331	* 0.4501	* 0.4821	* 0.4217	* 0.4759	* 0.4429	* 0.2319
	* 4.1978	* 3.7641	* 4.3824	* 4.1783	* 4.6035	* 4.1712	* 4.4854	* 7.6674
12	* 0.5505	* 0.4894	* 0.5250	* 0.4217	* 0.3350	* 0.3763	* 0.2867	
	* 3.6505	* 4.0158	* 3.8068	* 4.6033	* 4.5450	* 4.4357	* 5.9222	
13	* 0.4837	* 0.4794	* 0.4647	* 0.4759	* 0.3764	* 0.2420	* 0.1526	
	* 4.0674	* 4.1047	* 4.1881	* 4.1709	* 4.4356	* 5.5186	* 9.8928	
14	* 0.5134	* 0.5095	* 0.4882	* 0.4430	* 0.2867	* 0.1526		
	* 3.9886	* 4.0161	* 4.0947	* 4.4848	* 5.9217	* 9.8931		
15	* 0.2912	* 0.2900	* 0.2740	* 0.2320	* F-SUB-Q			
	* 6.3275	* 6.3339	* 6.5549	* 7.6647	* M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.7924	* 0.8204	* 0.8736	* 0.9822	* 1.2414	* 1.0966	* 1.2308	* 0.6607
	* 1.8805	* 2.2648	* 2.3325	* 2.0637	* 1.6684	* 1.8542	* 1.7112	* 2.8724
9	* 0.8204	* 1.0685	* 1.0134	* 1.2062	* 1.0460	* 1.0931	* 1.2222	* 0.6572
	* 2.2648	* 1.9280	* 2.0123	* 1.7126	* 1.9371	* 1.8578	* 1.7064	* 2.8486
10	* 0.8736	* 1.0135	* 0.8666	* 0.9444	* 1.1892	* 1.0571	* 1.1772	* 0.6159
	* 2.3325	* 2.0120	* 2.3775	* 2.1456	* 1.7308	* 1.8979	* 1.7474	* 2.9931
11	* 0.9822	* 1.2063	* 0.9446	* 1.1273	* 0.8878	* 1.0929	* 1.0637	* 0.5150
	* 2.0637	* 1.7126	* 2.1453	* 1.8192	* 2.2227	* 1.8499	* 1.9189	* 3.5573
12	* 1.2414	* 1.0461	* 1.1893	* 0.8879	* 0.7617	* 0.9071	* 0.6555	
	* 1.6684	* 1.9370	* 1.7307	* 2.2225	* 2.0329	* 1.8767	* 2.6435	
13	* 1.0966	* 1.0932	* 1.0572	* 1.0930	* 0.9071	* 0.5526	* 0.3353	
	* 1.8542	* 1.8577	* 1.8977	* 1.8498	* 1.8767	* 2.4740	* 4.6030	
14	* 1.2308	* 1.2223	* 1.1774	* 1.0639	* 0.6556	* 0.3352		
	* 1.7112	* 1.7063	* 1.7472	* 1.9186	* 2.6432	* 4.6033		
15	* 0.6607	* 0.6571	* 0.6166	* 0.5153	* F-SUB-Q			
	* 2.8724	* 2.8484	* 2.9918	* 3.5559	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.9665	* 0.9960	* 1.0648	* 1.1982	* 1.4921	* 1.3434	* 1.4793	* 0.8113
	* 1.6233	* 1.9086	* 1.9581	* 1.7287	* 1.4155	* 1.5337	* 1.4292	* 2.3484
9	* 0.9960	* 1.2777	* 1.2294	* 1.4472	* 1.2698	* 1.3373	* 1.4692	* 0.8067
	* 1.9086	* 1.6441	* 1.6916	* 1.4571	* 1.6298	* 1.5426	* 1.4358	* 2.3536
10	* 1.0648	* 1.2295	* 1.0560	* 1.1497	* 1.4211	* 1.2997	* 1.4256	* 0.7590
	* 1.9581	* 1.6914	* 1.9725	* 1.7976	* 1.4797	* 1.5753	* 1.4700	* 2.4737
11	* 1.1982	* 1.4473	* 1.1500	* 1.3429	* 1.0831	* 1.3147	* 1.3030	* 0.6387
	* 1.7287	* 1.4571	* 1.7973	* 1.5530	* 1.8581	* 1.5716	* 1.6004	* 2.9302
12	* 1.4922	* 1.2699	* 1.4212	* 1.0832	* 0.9308	* 1.1065	* 0.8132	
	* 1.4155	* 1.6297	* 1.4796	* 1.8580	* 1.7188	* 1.5807	* 2.1735	
13	* 1.3434	* 1.3374	* 1.2999	* 1.3148	* 1.1065	* 0.6785	* 0.4161	
	* 1.5337	* 1.5425	* 1.5751	* 1.5715	* 1.5806	* 2.0714	* 3.7944	
14	* 1.4793	* 1.4693	* 1.4258	* 1.3032	* 0.8133	* 0.4160		
	* 1.4292	* 1.4358	* 1.4697	* 1.6001	* 2.1733	* 3.7947		
15	* 0.8113	* 0.8065	* 0.7598	* 0.6392	* F-SUB-Q			
	* 2.3484	* 2.3534	* 2.4726	* 2.9289	* M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0939	* 1.0924	* 1.1633	* 1.3184	* 1.6880	* 1.4878	* 1.6877	* 0.8811
	* 1.4679	* 1.7796	* 1.8375	* 1.6095	* 1.2796	* 1.4117	* 1.2752	* 2.2012
9	* 1.0924	* 1.4429	* 1.3567	* 1.6393	* 1.3989	* 1.4807	* 1.6770	* 0.8738
	* 1.7796	* 1.4887	* 1.5711	* 1.3176	* 1.5152	* 1.4215	* 1.2820	* 2.2135
10	* 1.1633	* 1.3568	* 1.1576	* 1.2669	* 1.6148	* 1.4469	* 1.6303	* 0.8217
	* 1.8375	* 1.5709	* 1.8429	* 1.6724	* 1.3338	* 1.4476	* 1.3141	* 2.3354
11	* 1.3184	* 1.6393	* 1.2672	* 1.5256	* 1.1995	* 1.5107	* 1.4912	* 0.6915
	* 1.6095	* 1.3176	* 1.6721	* 1.3989	* 1.7193	* 1.4037	* 1.4293	* 2.7720
12	* 1.6880	* 1.3990	* 1.6149	* 1.1996	* 1.0281	* 1.2655	* 0.8917	
	* 1.2796	* 1.5151	* 1.3337	* 1.7192	* 1.5858	* 1.4156	* 2.0359	
13	* 1.4878	* 1.4807	* 1.4471	* 1.5109	* 1.2656	* 0.7443	* 0.4500	
	* 1.4117	* 1.4214	* 1.4474	* 1.4035	* 1.4155	* 1.9507	* 3.6181	
14	* 1.6877	* 1.6771	* 1.6305	* 1.4914	* 0.8918	* 0.4499		
	* 1.2752	* 1.2819	* 1.3139	* 1.4291	* 2.0358	* 3.6184		
15	* 0.8811	* 0.8736	* 0.8227	* 0.6921	* F-SUB-Q			
	* 2.2012	* 2.2134	* 2.3341	* 2.7706	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1552	* 1.1337	* 1.2087	* 1.3674	* 1.7689	* 1.5438	* 1.7787	* 0.9157
	* 1.4398	* 1.7709	* 1.8221	* 1.5942	* 1.2537	* 1.3975	* 1.2416	* 2.1752
9	* 1.1337	* 1.5131	* 1.4083	* 1.7214	* 1.4513	* 1.5369	* 1.7686	* 0.9107
	* 1.7709	* 1.4629	* 1.5599	* 1.2894	* 1.4998	* 1.4076	* 1.2483	* 2.1820
10	* 1.2087	* 1.4083	* 1.1957	* 1.3178	* 1.7019	* 1.5097	* 1.7247	* 0.8572
	* 1.8221	* 1.5598	* 1.8404	* 1.6540	* 1.2993	* 1.4237	* 1.2749	* 2.3008
11	* 1.3674	* 1.7215	* 1.3182	* 1.6135	* 1.2577	* 1.6119	* 1.5883	* 0.7255
	* 1.5942	* 1.2893	* 1.6537	* 1.3660	* 1.6975	* 1.3622	* 1.3803	* 2.7128
12	* 1.7689	* 1.4513	* 1.7021	* 1.2578	* 1.0876	* 1.3529	* 0.9433	
	* 1.2537	* 1.4997	* 1.2992	* 1.6974	* 1.5665	* 1.3779	* 1.9969	
13	* 1.5438	* 1.5370	* 1.5099	* 1.6121	* 1.3530	* 0.7877	* 0.4727	
	* 1.3975	* 1.4075	* 1.4234	* 1.3621	* 1.3779	* 1.9293	* 3.5981	
14	* 1.7787	* 1.7687	* 1.7249	* 1.5885	* 0.9434	* 0.4726		
	* 1.2416	* 1.2482	* 1.2747	* 1.3801	* 1.9967	* 3.5984		
15	* 0.9157	* 0.9104	* 0.8582	* 0.7261	* F-SUB-Q			
	* 2.1752	* 2.1820	* 2.2996	* 2.7114	* M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1984	* 1.1593	* 1.2327	* 1.3866	* 1.8000	* 1.5641	* 1.8169	* 0.9325
	* 1.4614	* 1.8077	* 1.8541	* 1.6263	* 1.2700	* 1.4167	* 1.2493	* 2.1965
9	* 1.1593	* 1.5484	* 1.4307	* 1.7557	* 1.4720	* 1.5585	* 1.8081	* 0.9301
	* 1.8077	* 1.4852	* 1.5931	* 1.3079	* 1.5285	* 1.4265	* 1.2551	* 2.1973
10	* 1.2327	* 1.4309	* 1.2152	* 1.3428	* 1.7437	* 1.5395	* 1.7706	* 0.8784
	* 1.8541	* 1.5929	* 1.8799	* 1.6853	* 1.3151	* 1.4442	* 1.2827	* 2.3144
11	* 1.3866	* 1.7558	* 1.3431	* 1.6639	* 1.2958	* 1.6710	* 1.6446	* 0.7488
	* 1.6263	* 1.3078	* 1.6850	* 1.3770	* 1.7171	* 1.3670	* 1.3892	* 2.7294
12	* 1.8000	* 1.4720	* 1.7439	* 1.2959	* 1.1383	* 1.4156	* 0.9844	
	* 1.2700	* 1.5284	* 1.3150	* 1.7170	* 1.5916	* 1.3902	* 2.0061	
13	* 1.5641	* 1.5586	* 1.5398	* 1.6712	* 1.4157	* 0.8297	* 0.4942	
	* 1.4167	* 1.4264	* 1.4439	* 1.3669	* 1.3902	* 1.9571	* 3.6554	
14	* 1.8169	* 1.8081	* 1.7708	* 1.6449	* 0.9844	* 0.4941		
	* 1.2493	* 1.2550	* 1.2825	* 1.3890	* 2.0059	* 3.6557		
15	* 0.9325	* 0.9298	* 0.8794	* 0.7494	* F-SUB-Q			
	* 2.1965	* 2.1974	* 2.3133	* 2.7282	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2812	1.1968	1.2453	1.4020	1.8325	1.5829	1.8555	0.9370
	1.4878	1.8544	1.9293	1.6827	1.3005	1.4541	1.2693	2.2678
9	1.1968	1.5955	1.4547	1.7923	1.4893	1.5807	1.8483	0.9347
	1.8544	1.5088	1.6476	1.3411	1.5791	1.4650	1.2756	2.2697
10	1.2453	1.4548	1.2289	1.3663	1.7909	1.5696	1.8193	0.8851
	1.9293	1.6474	1.9552	1.7424	1.3453	1.4829	1.3049	2.3953
11	1.4020	1.7924	1.3667	1.7271	1.3377	1.7396	1.7082	0.7571
	1.6827	1.3410	1.7420	1.3878	1.7437	1.3729	1.4133	2.8366
12	1.8325	1.4893	1.7911	1.3378	1.2146	1.5045	1.0188	
	1.3005	1.5791	1.3452	1.7436	1.6245	1.4071	2.0527	
13	1.5829	1.5808	1.5698	1.7397	1.5046	0.8896	0.5151	
	1.4541	1.4649	1.4826	1.3728	1.4070	2.0148	3.7831	
14	1.8555	1.8484	1.8196	1.7084	1.0188	0.5150		
	1.2693	1.2756	1.3048	1.4131	2.0525	3.7834		
15	0.9370	0.9343	0.8861	0.7577	F-SUB-Q			
	2.2678	2.2699	2.3942	2.8352	M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4309	1.2401	1.2558	1.4086	1.8473	1.5892	1.8728	0.9388
	1.5293	1.9159	2.0348	1.7709	1.3605	1.5209	1.3192	2.3742
9	1.2401	1.6341	1.4703	1.8111	1.4964	1.5925	1.8676	0.9372
	1.9159	1.5538	1.7348	1.4045	1.6603	1.5325	1.3261	2.3757
10	1.2558	1.4705	1.2397	1.3826	1.8218	1.5883	1.8489	0.8907
	2.0348	1.7345	2.0641	1.8327	1.4059	1.5508	1.3571	2.5089
11	1.4086	1.8112	1.3830	1.7818	1.3809	1.7952	1.7574	0.7666
	1.7709	1.4044	1.8323	1.4261	1.7979	1.4059	1.4474	2.9754
12	1.8473	1.4964	1.8219	1.3810	1.3502	1.6297	1.0585	
	1.3605	1.6603	1.4058	1.7977	1.6687	1.4376	2.1095	
13	1.5892	1.5927	1.5885	1.7954	1.6298	0.9895	0.5415	
	1.5209	1.5323	1.5506	1.4058	1.4375	2.0782	3.9057	
14	1.8728	1.8677	1.8491	1.7576	1.0585	0.5413		
	1.3192	1.3260	1.3570	1.4472	2.1094	3.9061		
15	0.9388	0.9368	0.8917	0.7672	F-SUB-Q			
	2.3742	2.3759	2.5078	2.9740	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 16 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6592	* 1.3117	* 1.2642	* 1.4150	* 1.8642	* 1.5954	* 1.8908	* 0.9375
	* 1.5958	* 2.0081	* 2.1685	* 1.8806	* 1.4346	* 1.6056	* 1.3836	* 2.5166
9	* 1.3117	* 1.6760	* 1.4871	* 1.8316	* 1.5035	* 1.6040	* 1.8876	* 0.9346
	* 2.0081	* 1.6185	* 1.8391	* 1.4827	* 1.7614	* 1.6179	* 1.3909	* 2.5230
10	* 1.2642	* 1.4874	* 1.2526	* 1.3982	* 1.8626	* 1.6146	* 1.8788	* 0.8922
	* 2.1685	* 1.8387	* 2.1818	* 1.9381	* 1.4636	* 1.6370	* 1.4240	* 2.6626
11	* 1.4150	* 1.8317	* 1.3986	* 1.8380	* 1.4206	* 1.8522	* 1.8059	* 0.7712
	* 1.8806	* 1.4827	* 1.9378	* 1.4808	* 1.8762	* 1.4557	* 1.4901	* 3.1663
12	* 1.8642	* 1.5035	* 1.8628	* 1.4207	* 1.4655	* 1.7470	* 1.0912	
	* 1.4346	* 1.7614	* 1.4635	* 1.8761	* 1.7400	* 1.4891	* 2.2060	
13	* 1.5954	* 1.6042	* 1.6148	* 1.8523	* 1.7471	* 1.0705	* 0.5641	
	* 1.6056	* 1.6178	* 1.6368	* 1.4556	* 1.4891	* 2.1771	* 4.0999	
14	* 1.8908	* 1.8877	* 1.8790	* 1.8061	* 1.0912	* 0.5640		
	* 1.3836	* 1.3908	* 1.4238	* 1.4900	* 2.2059	* 4.1003		
15	* 0.9375	* 0.9342	* 0.8932	* 0.7718	* F-SUB-Q			
	* 2.5166	* 2.5232	* 2.6614	* 3.1649	* M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7044	* 1.3430	* 1.2726	* 1.4058	* 1.8439	* 1.5808	* 1.8693	* 0.9391
	* 1.7101	* 2.1389	* 2.2882	* 2.0323	* 1.5539	* 1.7300	* 1.4930	* 2.6786
9	* 1.3430	* 1.6950	* 1.4819	* 1.8146	* 1.4930	* 1.5939	* 1.8678	* 0.9411
	* 2.1389	* 1.7263	* 1.9548	* 1.6079	* 1.9030	* 1.7436	* 1.5009	* 2.6725
10	* 1.2726	* 1.4823	* 1.2589	* 1.3963	* 1.8620	* 1.6152	* 1.8674	* 0.9030
	* 2.2882	* 1.9543	* 2.2970	* 2.0512	* 1.5525	* 1.7349	* 1.5367	* 2.8148
11	* 1.4058	* 1.8147	* 1.3967	* 1.8461	* 1.4339	* 1.8624	* 1.8102	* 0.7863
	* 2.0323	* 1.6079	* 2.0509	* 1.5675	* 1.9781	* 1.5385	* 1.5754	* 3.2852
12	* 1.8439	* 1.4929	* 1.8622	* 1.4340	* 1.5100	* 1.7854	* 1.1240	
	* 1.5539	* 1.9031	* 1.5524	* 1.9780	* 1.8536	* 1.5864	* 2.2937	
13	* 1.5808	* 1.5940	* 1.6154	* 1.8626	* 1.7854	* 1.1205	* 0.5863	
	* 1.7300	* 1.7434	* 1.7346	* 1.5384	* 1.5864	* 2.2894	* 4.2861	
14	* 1.8693	* 1.8679	* 1.8676	* 1.8104	* 1.1240	* 0.5861		
	* 1.4930	* 1.5008	* 1.5365	* 1.5752	* 2.2936	* 4.2865		
15	* 0.9391	* 0.9407	* 0.9042	* 0.7869	* F-SUB-Q			
	* 2.6786	* 2.6728	* 2.8129	* 3.2838	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7593	1.3701	1.2713	1.4134	1.8706	1.5909	1.8980	0.9322
	1.7780	2.2471	2.4387	2.1733	1.6487	1.8444	1.5769	2.8912
9	1.3701	1.7411	1.4984	1.8435	1.5018	1.6075	1.8993	0.9323
	2.2471	1.7984	2.0583	1.6923	2.0373	1.8584	1.5852	2.8912
10	1.2713	1.4988	1.2600	1.4119	1.9037	1.6392	1.9042	0.8941
	2.4387	2.0578	2.4481	2.1621	1.6182	1.8190	1.6015	3.0527
11	1.4134	1.8436	1.4122	1.8907	1.4551	1.9120	1.8570	0.7795
	2.1733	1.6922	2.1618	1.6333	2.0795	1.5972	1.6356	3.5226
12	1.8706	1.5017	1.9038	1.4552	1.5511	1.8449	1.1298	
	1.6487	2.0373	1.6181	2.0794	1.9340	1.6424	2.4366	
13	1.5909	1.6077	1.6395	1.9121	1.8449	1.1349	0.5883	
	1.8444	1.8582	1.8187	1.5970	1.6424	2.4256	4.5690	
14	1.8980	1.8995	1.9044	1.8571	1.1298	0.5881		
	1.5769	1.5851	1.6013	1.6354	2.4365	4.5695		
15	0.9322	0.9319	0.8951	0.7801	F-SUB-Q			
	2.8912	2.8915	3.0515	3.5210	M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7736	1.3766	1.2707	1.4100	1.8706	1.5866	1.8987	0.9289
	1.8340	2.3104	2.4977	2.2380	1.7201	1.9723	1.6950	3.1177
9	1.3766	1.7519	1.4986	1.8452	1.4982	1.6057	1.9028	0.9297
	2.3104	1.8485	2.1147	1.7448	2.1059	1.9586	1.6939	3.1154
10	1.2707	1.4991	1.2587	1.4133	1.9124	1.6434	1.9108	0.8932
	2.4977	2.1141	2.5218	2.2399	1.6891	1.9152	1.6887	3.2446
11	1.4100	1.8453	1.4136	1.9011	1.4597	1.9254	1.8705	0.7804
	2.2380	1.7447	2.2395	1.7009	2.1746	1.6808	1.7292	3.7310
12	1.8706	1.4981	1.9125	1.4598	1.5633	1.8643	1.1376	
	1.7201	2.1059	1.6890	2.1745	2.0531	1.7416	2.5815	
13	1.5866	1.6059	1.6437	1.9255	1.8643	1.1446	0.5916	
	1.9723	1.9584	1.9149	1.6807	1.7416	2.5787	4.8662	
14	1.8987	1.9030	1.9110	1.8707	1.1375	0.5914		
	1.6950	1.6938	1.6885	1.7290	2.5814	4.8668		
15	0.9289	0.9293	0.8942	0.7811	F-SUB-Q			
	3.1177	3.1159	3.2433	3.7292	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7590	* 1.3690	* 1.2701	* 1.3972	* 1.8480	* 1.5704	* 1.8769	* 0.9275
	* 1.8332	* 2.3013	* 2.4671	* 2.2282	* 1.7175	* 1.9610	* 1.6880	* 3.0849
9	* 1.3690	* 1.7358	* 1.4852	* 1.8239	* 1.4839	* 1.5912	* 1.8828	* 0.9309
	* 2.3013	* 1.8477	* 2.1075	* 1.7421	* 2.0972	* 1.9500	* 1.6892	* 3.0680
10	* 1.2701	* 1.4857	* 1.2609	* 1.4033	* 1.8949	* 1.6317	* 1.8928	* 0.8985
	* 2.4671	* 2.1068	* 2.4894	* 2.2293	* 1.6857	* 1.9070	* 1.6837	* 3.1815
11	* 1.3972	* 1.8240	* 1.4037	* 1.8846	* 1.4515	* 1.9106	* 1.8574	* 0.7871
	* 2.2282	* 1.7420	* 2.2288	* 1.6978	* 2.1636	* 1.6768	* 1.7236	* 3.6545
12	* 1.8480	* 1.4838	* 1.8950	* 1.4516	* 1.5557	* 1.8535	* 1.1472	
	* 1.7175	* 2.0973	* 1.6856	* 2.1634	* 2.0468	* 1.7393	* 2.5369	
13	* 1.5704	* 1.5914	* 1.6320	* 1.9107	* 1.8536	* 1.1526	* 0.5967	
	* 1.9610	* 1.9498	* 1.9068	* 1.6767	* 1.7393	* 2.5454	* 4.8022	
14	* 1.8769	* 1.8829	* 1.8930	* 1.8576	* 1.1471	* 0.5966		
	* 1.6880	* 1.6891	* 1.6836	* 1.7234	* 2.5369	* 4.8028		
15	* 0.9275	* 0.9305	* 0.8997	* 0.7877	* F-SUB-Q			
	* 3.0849	* 3.0684	* 3.1796	* 3.6529	* M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7826	* 1.3747	* 1.2614	* 1.3990	* 1.8669	* 1.5759	* 1.8999	* 0.9183
	* 1.7768	* 2.2349	* 2.4144	* 2.1671	* 1.6593	* 1.9033	* 1.6263	* 3.0173
9	* 1.3747	* 1.7576	* 1.4920	* 1.8436	* 1.4866	* 1.5982	* 1.9076	* 0.9191
	* 2.2349	* 1.7878	* 2.0442	* 1.6832	* 2.0407	* 1.8982	* 1.6319	* 3.0128
10	* 1.2614	* 1.4925	* 1.2494	* 1.4073	* 1.9190	* 1.6436	* 1.9195	* 0.8861
	* 2.4144	* 2.0436	* 2.4441	* 2.1772	* 1.6366	* 1.8606	* 1.6290	* 3.1440
11	* 1.3990	* 1.8437	* 1.4077	* 1.9088	* 1.4571	* 1.9384	* 1.8877	* 0.7751
	* 2.1671	* 1.6831	* 2.1767	* 1.6496	* 2.1197	* 1.6307	* 1.6717	* 3.6283
12	* 1.8669	* 1.4865	* 1.9191	* 1.4571	* 1.5690	* 1.8834	* 1.1383	
	* 1.6593	* 2.0408	* 1.6365	* 2.1196	* 2.0080	* 1.6942	* 2.5226	
13	* 1.5759	* 1.5984	* 1.6438	* 1.9385	* 1.8834	* 1.1449	* 0.5880	
	* 1.9033	* 1.8980	* 1.8604	* 1.6306	* 1.6942	* 2.5310	* 4.7523	
14	* 1.8999	* 1.9077	* 1.9197	* 1.8879	* 1.1383	* 0.5878		
	* 1.6263	* 1.6319	* 1.6289	* 1.6715	* 2.5226	* 4.7529		
15	* 0.9183	* 0.9187	* 0.8870	* 0.7757	* F-SUB-Q			
	* 3.0173	* 3.0133	* 3.1428	* 3.6267	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7866	1.3723	1.2549	1.3944	1.8679	1.5723	1.9039	0.9121
	1.6159	2.0404	2.2200	1.9989	1.5336	1.7693	1.5092	2.8080
9	1.3723	1.7606	1.4889	1.8452	1.4817	1.5956	1.9127	0.9129
	2.0404	1.6256	1.8745	1.5502	1.8875	1.7648	1.5122	2.8079
10	1.2549	1.4894	1.2434	1.4040	1.9233	1.6440	1.9261	0.8805
	2.2200	1.8739	2.2438	2.0018	1.5082	1.7218	1.5089	2.9177
11	1.3944	1.8453	1.4044	1.9129	1.4550	1.9463	1.8974	0.7694
	1.9989	1.5501	2.0014	1.5138	1.9507	1.5006	1.5382	3.3549
12	1.8679	1.4816	1.9234	1.4550	1.5698	1.8920	1.1348	
	1.5336	1.8876	1.5081	1.9506	1.8451	1.5536	2.3175	
13	1.5723	1.5958	1.6442	1.9464	1.8920	1.1406	0.5831	
	1.7693	1.7646	1.7216	1.5005	1.5536	2.3237	4.3832	
14	1.9039	1.9128	1.9263	1.8976	1.1348	0.5829		
	1.5092	1.5121	1.5088	1.5381	2.3175	4.3838		
15	0.9121	0.9122	0.8814	0.7699	F-SUB-Q			
	2.8080	2.8084	2.9166	3.3535	M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7807	1.3660	1.2512	1.3868	1.8606	1.5643	1.8979	0.9080
	1.4905	1.8857	2.0532	1.8480	1.4138	1.6374	1.3938	2.6003
9	1.3660	1.7543	1.4819	1.8383	1.4737	1.5883	1.9075	0.9102
	1.8857	1.5008	1.7361	1.4326	1.7440	1.6297	1.3951	2.5899
10	1.2512	1.4825	1.2395	1.3970	1.9178	1.6379	1.9219	0.8785
	2.0532	1.7355	2.0809	1.8536	1.3928	1.5926	1.3937	2.6888
11	1.3868	1.8384	1.3974	1.9078	1.4489	1.9432	1.8946	0.7685
	1.8480	1.4326	1.8532	1.3971	1.8039	1.3839	1.4181	3.0981
12	1.8606	1.4736	1.9179	1.4489	1.5643	1.8890	1.1341	
	1.4138	1.7441	1.3927	1.8038	1.7022	1.4301	2.1340	
13	1.5643	1.5885	1.6381	1.9433	1.8890	1.1387	0.5811	
	1.6374	1.6296	1.5924	1.3839	1.4301	2.1398	4.0475	
14	1.8979	1.9076	1.9220	1.8948	1.1340	0.5809		
	1.3938	1.3951	1.3936	1.4180	2.1340	4.0480		
15	0.9080	0.9097	0.8795	0.7691	F-SUB-Q			
	2.6003	2.5904	2.6879	3.0967	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7597	1.3542	1.2492	1.3745	1.8390	1.5494	1.8762	0.9061
	1.5099	1.9063	2.0579	1.8655	1.4314	1.6576	1.4131	2.6151
9	1.3542	1.7335	1.4676	1.8170	1.4602	1.5735	1.8862	0.9107
	1.9063	1.5223	1.7551	1.4484	1.7613	1.6460	1.4118	2.5974
10	1.2492	1.4682	1.2399	1.3848	1.8965	1.6232	1.9013	0.8818
	2.0579	1.7544	2.0882	1.8740	1.4109	1.6096	1.4071	2.6816
11	1.3745	1.8170	1.3852	1.8867	1.4373	1.9232	1.8751	0.7725
	1.8655	1.4483	1.8736	1.4160	1.8234	1.4018	1.4358	3.0862
12	1.8390	1.4601	1.8966	1.4373	1.5498	1.8693	1.1378	
	1.4314	1.7614	1.4108	1.8233	1.7199	1.4461	2.1322	
13	1.5494	1.5737	1.6235	1.9233	1.8693	1.1398	0.5822	
	1.6576	1.6458	1.6094	1.4018	1.4461	2.1401	4.0523	
14	1.8762	1.8863	1.9014	1.8752	1.1377	0.5821		
	1.4131	1.4117	1.4070	1.4357	2.1322	4.0529		
15	0.9061	0.9102	0.8830	0.7731	F-SUB-Q			
	2.6151	2.5978	2.6799	3.0848	M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7784	1.3558	1.2372	1.3747	1.8575	1.5535	1.8979	0.8938
	1.3902	1.7761	1.9405	1.7448	1.3255	1.5485	1.3080	2.4854
9	1.3558	1.7515	1.4724	1.8354	1.4613	1.5783	1.9085	0.8962
	1.7761	1.4054	1.6328	1.3399	1.6464	1.5348	1.3045	2.4774
10	1.2372	1.4730	1.2230	1.3850	1.9163	1.6304	1.9245	0.8653
	1.9405	1.6321	1.9665	1.7465	1.3008	1.4932	1.2979	2.5570
11	1.3747	1.8355	1.3854	1.9064	1.4379	1.9471	1.8990	0.7552
	1.7448	1.3398	1.7461	1.3057	1.6985	1.2898	1.3205	2.9456
12	1.8575	1.4612	1.9164	1.4380	1.5568	1.8919	1.1211	
	1.3255	1.6465	1.3007	1.6984	1.5941	1.3334	2.0197	
13	1.5535	1.5785	1.6307	1.9472	1.8919	1.1250	0.5690	
	1.5485	1.5346	1.4931	1.2897	1.3334	2.0236	3.8773	
14	1.8979	1.9086	1.9247	1.8992	1.1210	0.5688		
	1.3080	1.3044	1.2978	1.3204	2.0197	3.8779		
15	0.8938	0.8955	0.8663	0.7558	F-SUB-Q			
	2.4854	2.4786	2.5561	2.9442	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7637	1.3431	1.2251	1.3613	1.8431	1.5398	1.8838	0.8826
	1.3135	1.6838	1.8506	1.6652	1.2619	1.4771	1.2452	2.3824
9	1.3431	1.7374	1.4598	1.8208	1.4475	1.5646	1.8944	0.8853
	1.6838	1.3315	1.5544	1.2750	1.5708	1.4624	1.2406	2.3718
10	1.2251	1.4604	1.2101	1.3705	1.8996	1.6162	1.9106	0.8549
	1.8506	1.5537	1.8760	1.6640	1.2356	1.4195	1.2329	2.4466
11	1.3613	1.8209	1.3709	1.8909	1.4232	1.9315	1.8842	0.7451
	1.6652	1.2750	1.6636	1.2385	1.6155	1.2227	1.2520	2.8173
12	1.8431	1.4474	1.8997	1.4232	1.5429	1.8775	1.1084	
	1.2619	1.5709	1.2356	1.6154	1.5065	1.2599	1.9197	
13	1.5398	1.5649	1.6164	1.9316	1.8775	1.1128	0.5605	
	1.4771	1.4622	1.4193	1.2226	1.2599	1.9192	3.6981	
14	1.8838	1.8946	1.9107	1.8844	1.1083	0.5603		
	1.2452	1.2405	1.2328	1.2519	1.9197	3.6987		
15	0.8826	0.8846	0.8558	0.7457	F-SUB-Q			
	2.3824	2.3730	2.4457	2.8159	M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7020	1.3088	1.2072	1.3270	1.7811	1.4995	1.8183	0.8684
	1.2931	1.6438	1.7921	1.6301	1.2450	1.4473	1.2297	2.3127
9	1.3088	1.6782	1.4217	1.7581	1.4106	1.5240	1.8282	0.8733
	1.6438	1.3109	1.5220	1.2586	1.5378	1.4315	1.2246	2.2947
10	1.2072	1.4224	1.1955	1.3339	1.8311	1.5707	1.8442	0.8469
	1.7921	1.5212	1.8169	1.6288	1.2196	1.3903	1.2160	2.3570
11	1.3270	1.7582	1.3343	1.8243	1.3849	1.8601	1.8149	0.7388
	1.6301	1.2585	1.6284	1.2209	1.5799	1.2066	1.2354	2.7089
12	1.7811	1.4104	1.8313	1.3849	1.4994	1.8105	1.0948	
	1.2450	1.5379	1.2195	1.5798	1.4717	1.2395	1.8476	
13	1.4995	1.5242	1.5709	1.8602	1.8105	1.0992	0.5549	
	1.4473	1.4313	1.3902	1.2065	1.2395	1.8449	3.5537	
14	1.8183	1.8284	1.8443	1.8151	1.0947	0.5547		
	1.2297	1.2245	1.2159	1.2353	1.8476	3.5543		
15	0.8684	0.8729	0.8481	0.7395	F-SUB-Q			
	2.3127	2.2952	2.3552	2.7076	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6492	* 1.2687	* 1.1597	* 1.2854	* 1.7274	* 1.4561	* 1.7615	* 0.8294
	* 1.2815	* 1.6300	* 1.7959	* 1.6196	* 1.2342	* 1.4341	* 1.2203	* 2.3327
9	* 1.2687	* 1.6284	* 1.3827	* 1.7047	* 1.3676	* 1.4803	* 1.7707	* 0.8318
	* 1.6300	* 1.2978	* 1.5057	* 1.2479	* 1.5262	* 1.4171	* 1.2150	* 2.3207
10	* 1.1597	* 1.3834	* 1.1441	* 1.2899	* 1.7715	* 1.5232	* 1.7857	* 0.8040
	* 1.7959	* 1.5050	* 1.8223	* 1.6194	* 1.2106	* 1.3772	* 1.2061	* 2.3905
11	* 1.2854	* 1.7048	* 1.2903	* 1.7661	* 1.3377	* 1.7964	* 1.7528	* 0.6979
	* 1.6196	* 1.2478	* 1.6190	* 1.2109	* 1.5711	* 1.1987	* 1.2276	* 2.7599
12	* 1.7274	* 1.3675	* 1.7716	* 1.3377	* 1.4555	* 1.7524	* 1.0397	
	* 1.2342	* 1.5263	* 1.2106	* 1.5710	* 1.4547	* 1.2278	* 1.8681	
13	* 1.4561	* 1.4806	* 1.5234	* 1.7966	* 1.7524	* 1.0508	* 0.5263	
	* 1.4341	* 1.4169	* 1.3770	* 1.1986	* 1.2278	* 1.8526	* 3.6034	
14	* 1.7615	* 1.7708	* 1.7858	* 1.7529	* 1.0397	* 0.5261		
	* 1.2203	* 1.2149	* 1.2060	* 1.2275	* 1.8681	* 3.6040		
15	* 0.8294	* 0.8312	* 0.8048	* 0.6985	* F-SUB-Q			
	* 2.3327	* 2.3218	* 2.3895	* 2.7585	* M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4934	* 1.1695	* 1.0663	* 1.1834	* 1.5658	* 1.3393	* 1.5910	* 0.7633
	* 1.3708	* 1.7143	* 1.8946	* 1.7066	* 1.3191	* 1.5119	* 1.3088	* 2.4619
9	* 1.1695	* 1.4771	* 1.2746	* 1.5451	* 1.2598	* 1.3613	* 1.5982	* 0.7649
	* 1.7143	* 1.3859	* 1.5845	* 1.3339	* 1.6067	* 1.4935	* 1.3036	* 2.4503
10	* 1.0663	* 1.2752	* 1.0557	* 1.1867	* 1.6021	* 1.3979	* 1.6103	* 0.7389
	* 1.8946	* 1.5837	* 1.9134	* 1.7058	* 1.2960	* 1.4533	* 1.2946	* 2.5253
11	* 1.1834	* 1.5452	* 1.1871	* 1.5981	* 1.2286	* 1.6179	* 1.5761	* 0.6369
	* 1.7066	* 1.3338	* 1.7054	* 1.2955	* 1.6565	* 1.2862	* 1.3212	* 2.9357
12	* 1.5658	* 1.2597	* 1.6022	* 1.2286	* 1.3372	* 1.5820	* 0.9524	
	* 1.3191	* 1.6068	* 1.2959	* 1.6564	* 1.5331	* 1.3156	* 1.9764	
13	* 1.3393	* 1.3615	* 1.3980	* 1.6180	* 1.5820	* 0.9666	* 0.4834	
	* 1.5119	* 1.4933	* 1.4532	* 1.2861	* 1.3156	* 1.9513	* 3.8089	
14	* 1.5910	* 1.5983	* 1.6105	* 1.5763	* 0.9523	* 0.4832		
	* 1.3088	* 1.3036	* 1.2945	* 1.3211	* 1.9764	* 3.8096		
15	* 0.7633	* 0.7643	* 0.7396	* 0.6375	* F-SUB-Q			
	* 2.4619	* 2.4514	* 2.5244	* 2.9341	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 250 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2240	0.9520	0.8680	0.9591	1.2715	1.0796	1.2858	0.6210
	1.6303	2.0551	2.2696	2.0548	1.5832	1.8295	1.5794	2.9579
9	0.9520	1.2064	1.0357	1.2564	1.0242	1.0938	1.2902	0.6271
	2.0551	1.6548	1.9028	1.5990	1.9279	1.8120	1.5747	2.9216
10	0.8680	1.0361	0.8575	0.9644	1.3041	1.1222	1.2933	0.6020
	2.2696	1.9019	2.3002	2.0482	1.5507	1.7637	1.5711	3.0291
11	0.9591	1.2565	0.9646	1.3045	0.9975	1.3116	1.2593	0.5166
	2.0548	1.5989	2.0478	1.5469	1.9892	1.5451	1.6120	3.5380
12	1.2715	1.0241	1.3042	0.9976	1.0912	1.2698	0.7713	
	1.5832	1.9280	1.5506	1.9891	1.8313	1.5976	2.3814	
13	1.0796	1.0940	1.1223	1.3116	1.2698	0.7871	0.3928	
	1.8295	1.8118	1.7636	1.5451	1.5976	2.3385	4.5856	
14	1.2858	1.2902	1.2934	1.2594	0.7712	0.3927		
	1.5794	1.5746	1.5710	1.6119	2.3814	4.5863		
15	0.6210	0.6267	0.6026	0.5171	F-SUB-Q			
	2.9579	2.9227	3.0283	3.5362	M-SUB-Q			

AT 75% POWER, 250 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.4967	0.4183	0.3922	0.4303	0.5151	0.4422	0.4893	0.2637
	3.9281	4.5751	4.9172	4.4806	3.8234	4.3615	4.0538	6.8235
9	0.4183	0.4849	0.4275	0.5060	0.4488	0.4471	0.4900	0.2654
	4.5751	4.0266	4.5070	3.8828	4.3012	4.3279	4.0498	6.7615
10	0.3922	0.4277	0.3883	0.4327	0.5241	0.4568	0.4896	0.2579
	4.9172	4.5051	4.9752	4.4658	3.7707	4.2288	4.0530	6.9266
11	0.4303	0.5060	0.4328	0.5095	0.4457	0.5226	0.4721	0.2256
	4.4806	3.8825	4.4651	3.8683	4.3536	3.7896	4.2023	7.9435
12	0.5151	0.4488	0.5242	0.4457	0.4421	0.4815	0.3245	
	3.8234	4.3013	3.7705	4.3534	4.4148	4.1149	5.5397	
13	0.4422	0.4472	0.4569	0.5226	0.4815	0.3314	0.1755	
	4.3615	4.3276	4.2285	3.7894	4.1149	5.4345	10.0650	
14	0.4893	0.4900	0.4897	0.4721	0.3245	0.1755		
	4.0538	4.0496	4.0527	4.2020	5.5398	10.0660		
15	0.2637	0.2653	0.2581	0.2257	F-SUB-Q			
	6.8235	6.7621	6.9271	7.9410	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.3985	* 0.4473	* 0.4886	* 0.5432	* 0.6370	* 0.5634	* 0.6034	* 0.3501
	* 3.6499	* 4.1408	* 4.1427	* 3.7016	* 3.3044	* 3.5740	* 3.5526	* 5.3906
9	* 0.4473	* 0.5453	* 0.5233	* 0.6185	* 0.5684	* 0.5616	* 0.5992	* 0.3483
	* 4.1408	* 3.8613	* 3.8749	* 3.3921	* 3.5353	* 3.5951	* 3.5734	* 5.4655
10	* 0.4886	* 0.5234	* 0.4864	* 0.5243	* 0.6112	* 0.5439	* 0.5766	* 0.3298
	* 4.1427	* 3.8741	* 4.2351	* 3.8432	* 3.4137	* 3.6459	* 3.6259	* 5.5615
11	* 0.5432	* 0.6185	* 0.5244	* 0.5630	* 0.4916	* 0.5586	* 0.5237	* 0.2820
	* 3.7016	* 3.3919	* 3.8428	* 3.7346	* 4.0270	* 3.7021	* 3.9528	* 6.4233
12	* 0.6370	* 0.5684	* 0.6113	* 0.4916	* 0.3848	* 0.4439	* 0.3406	
	* 3.3044	* 3.5352	* 3.4135	* 4.0268	* 3.9056	* 3.9168	* 5.1410	
13	* 0.5634	* 0.5616	* 0.5439	* 0.5586	* 0.4439	* 0.2859	* 0.1892	
	* 3.5740	* 3.5951	* 3.6457	* 3.7019	* 3.9168	* 4.7928	* 8.1756	
14	* 0.6034	* 0.5993	* 0.5766	* 0.5237	* 0.3406	* 0.1892		
	* 3.5526	* 3.5733	* 3.6256	* 3.9524	* 5.1400	* 8.1759		
15	* 0.3501	* 0.3483	* 0.3302	* 0.2822	* F-SUB-Q			
	* 5.3906	* 5.4628	* 5.5610	* 6.4253	* M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.8489	* 0.8935	* 0.9570	* 1.0708	* 1.3454	* 1.2021	* 1.3492	* 0.7478
	* 1.7969	* 2.1066	* 2.1735	* 1.9326	* 1.6099	* 1.7313	* 1.6343	* 2.5965
9	* 0.8935	* 1.1572	* 1.1051	* 1.3086	* 1.1395	* 1.1989	* 1.3407	* 0.7441
	* 2.1066	* 1.8464	* 1.8802	* 1.6483	* 1.8149	* 1.7316	* 1.6293	* 2.6090
10	* 0.9570	* 1.1052	* 0.9531	* 1.0349	* 1.2956	* 1.1638	* 1.2960	* 0.6982
	* 2.1735	* 1.8799	* 2.2109	* 1.9957	* 1.6572	* 1.7544	* 1.6576	* 2.6939
11	* 1.0708	* 1.3086	* 1.0351	* 1.2292	* 0.9768	* 1.2043	* 1.1810	* 0.5897
	* 1.9326	* 1.6482	* 1.9955	* 1.7372	* 2.0577	* 1.7586	* 1.7974	* 3.1613
12	* 1.3454	* 1.1396	* 1.2956	* 0.9768	* 0.8237	* 1.0024	* 0.7340	
	* 1.6099	* 1.8149	* 1.6572	* 2.0576	* 1.8677	* 1.7706	* 2.4261	
13	* 1.2021	* 1.1990	* 1.1640	* 1.2044	* 1.0025	* 0.6121	* 0.3916	
	* 1.7313	* 1.7315	* 1.7543	* 1.7585	* 1.7706	* 2.2941	* 4.0265	
14	* 1.3492	* 1.3408	* 1.2961	* 1.1811	* 0.7340	* 0.3915		
	* 1.6343	* 1.6293	* 1.6574	* 1.7972	* 2.4257	* 4.0267		
15	* 0.7478	* 0.7439	* 0.6989	* 0.5901	* F-SUB-Q			
	* 2.5965	* 2.6079	* 2.6940	* 3.1621	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0249	* 1.0520	* 1.1322	* 1.2691	* 1.5984	* 1.4288	* 1.6124	* 0.8979
	* 1.5546	* 1.8202	* 1.8742	* 1.6617	* 1.3784	* 1.4696	* 1.3703	* 2.1688
9	* 1.0520	* 1.3684	* 1.2998	* 1.5542	* 1.3437	* 1.4236	* 1.6025	* 0.8946
	* 1.8202	* 1.5837	* 1.6248	* 1.4129	* 1.5679	* 1.4765	* 1.3749	* 2.1945
10	* 1.1322	* 1.2999	* 1.1235	* 1.2251	* 1.5403	* 1.3892	* 1.5531	* 0.8436
	* 1.8742	* 1.6246	* 1.8869	* 1.7149	* 1.4196	* 1.4958	* 1.4063	* 2.2639
11	* 1.2691	* 1.5542	* 1.2253	* 1.4537	* 1.1621	* 1.4480	* 1.4237	* 0.7163
	* 1.6617	* 1.4129	* 1.7147	* 1.4889	* 1.7598	* 1.4896	* 1.5191	* 2.6516
12	* 1.5984	* 1.3437	* 1.5404	* 1.1621	* 0.9855	* 1.2053	* 0.8940	
	* 1.3784	* 1.5678	* 1.4195	* 1.7597	* 1.6295	* 1.5050	* 2.0252	
13	* 1.4288	* 1.4236	* 1.3893	* 1.4482	* 1.2054	* 0.7357	* 0.4735	
	* 1.4696	* 1.4764	* 1.4956	* 1.4895	* 1.5050	* 1.9659	* 3.3952	
14	* 1.6124	* 1.6026	* 1.5532	* 1.4239	* 0.8940	* 0.4734		
	* 1.3703	* 1.3748	* 1.4062	* 1.5189	* 2.0248	* 3.3955		
15	* 0.8979	* 0.8944	* 0.8446	* 0.7169	F-SUB-Q			
	* 2.1688	* 2.1934	* 2.2636	* 2.6522	M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1278	* 1.1244	* 1.2048	* 1.3623	* 1.7565	* 1.5415	* 1.7884	* 0.9551
	* 1.4402	* 1.7318	* 1.7974	* 1.5787	* 1.2767	* 1.3826	* 1.2526	* 2.0663
9	* 1.1244	* 1.5007	* 1.3986	* 1.7108	* 1.4430	* 1.5354	* 1.7781	* 0.9492
	* 1.7318	* 1.4671	* 1.5399	* 1.3084	* 1.4885	* 1.3908	* 1.2578	* 2.0980
10	* 1.2048	* 1.3987	* 1.2003	* 1.3178	* 1.6996	* 1.5051	* 1.7284	* 0.8913
	* 1.7974	* 1.5398	* 1.7998	* 1.6265	* 1.3120	* 1.4061	* 1.2862	* 2.1806
11	* 1.3623	* 1.7108	* 1.3180	* 1.6080	* 1.2557	* 1.6162	* 1.5912	* 0.7587
	* 1.5787	* 1.3084	* 1.6263	* 1.3709	* 1.6602	* 1.3622	* 1.3814	* 2.5509
12	* 1.7565	* 1.4430	* 1.6997	* 1.2557	* 1.0661	* 1.3471	* 0.9568	
	* 1.2767	* 1.4884	* 1.3119	* 1.6601	* 1.5358	* 1.3790	* 1.9315	
13	* 1.5415	* 1.5355	* 1.5053	* 1.6163	* 1.3472	* 0.7872	* 0.4997	
	* 1.3826	* 1.3907	* 1.4059	* 1.3621	* 1.3790	* 1.8893	* 3.2962	
14	* 1.7884	* 1.7781	* 1.7286	* 1.5914	* 0.9569	* 0.4996		
	* 1.2526	* 1.2578	* 1.2861	* 1.3813	* 1.9312	* 3.2965		
15	* 0.9551	* 0.9489	* 0.8923	* 0.7593	F-SUB-Q			
	* 2.0663	* 2.0971	* 2.1805	* 2.5514	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 20 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1567	* 1.1386	* 1.2249	* 1.3815	* 1.7951	* 1.5657	* 1.8382	* 0.9719
	* 1.4399	* 1.7496	* 1.8102	* 1.5900	* 1.2753	* 1.3902	* 1.2441	* 2.0744
9	* 1.1386	* 1.5331	* 1.4182	* 1.7512	* 1.4632	* 1.5592	* 1.8282	* 0.9684
	* 1.7496	* 1.4682	* 1.5552	* 1.3053	* 1.4985	* 1.3986	* 1.2496	* 2.1014
10	* 1.2249	* 1.4183	* 1.2131	* 1.3396	* 1.7442	* 1.5333	* 1.7812	* 0.9098
	* 1.8102	* 1.5550	* 1.8249	* 1.6345	* 1.3037	* 1.4063	* 1.2728	* 2.1832
11	* 1.3815	* 1.7513	* 1.3399	* 1.6547	* 1.2830	* 1.6734	* 1.6496	* 0.7774
	* 1.5900	* 1.3052	* 1.6343	* 1.3647	* 1.6663	* 1.3447	* 1.3614	* 2.5396
12	* 1.7951	* 1.4632	* 1.7442	* 1.2830	* 1.0981	* 1.3985	* 0.9858	
	* 1.2753	* 1.4984	* 1.3036	* 1.6663	* 1.5420	* 1.3693	* 1.9262	
13	* 1.5657	* 1.5592	* 1.5335	* 1.6736	* 1.3985	* 0.8094	* 0.5111	
	* 1.3902	* 1.3985	* 1.4062	* 1.3446	* 1.3693	* 1.8987	* 3.3285	
14	* 1.8382	* 1.8283	* 1.7813	* 1.6498	* 0.9859	* 0.5110		
	* 1.2441	* 1.2496	* 1.2726	* 1.3612	* 1.9259	* 3.3288		
15	* 0.9719	* 0.9681	* 0.9108	* 0.7779	* F-SUB-Q			
	* 2.0744	* 2.1006	* 2.1832	* 2.5401	* M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 19 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1656	* 1.1381	* 1.2263	* 1.3743	* 1.7892	* 1.5579	* 1.8388	* 0.9721
	* 1.4801	* 1.8052	* 1.8614	* 1.6417	* 1.3099	* 1.4266	* 1.2700	* 2.1196
9	* 1.1381	* 1.5334	* 1.4125	* 1.7488	* 1.4556	* 1.5517	* 1.8298	* 0.9708
	* 1.8052	* 1.5088	* 1.6068	* 1.3423	* 1.5461	* 1.4356	* 1.2748	* 2.1420
10	* 1.2263	* 1.4127	* 1.2126	* 1.3368	* 1.7465	* 1.5320	* 1.7875	* 0.9166
	* 1.8614	* 1.6066	* 1.8808	* 1.6867	* 1.3393	* 1.4449	* 1.3001	* 2.2178
11	* 1.3743	* 1.7489	* 1.3371	* 1.6629	* 1.2953	* 1.6886	* 1.6653	* 0.7859
	* 1.6417	* 1.3423	* 1.6864	* 1.3952	* 1.7077	* 1.3766	* 1.3924	* 2.5882
12	* 1.7892	* 1.4556	* 1.7466	* 1.2954	* 1.1158	* 1.4185	* 1.0015	
	* 1.3099	* 1.5460	* 1.3392	* 1.7076	* 1.5870	* 1.4022	* 1.9606	
13	* 1.5579	* 1.5518	* 1.5322	* 1.6887	* 1.4185	* 0.8247	* 0.5192	
	* 1.4266	* 1.4355	* 1.4447	* 1.3765	* 1.4022	* 1.9491	* 3.4195	
14	* 1.8388	* 1.8298	* 1.7877	* 1.6654	* 1.0015	* 0.5191		
	* 1.2700	* 1.2748	* 1.3000	* 1.3923	* 1.9603	* 3.4198		
15	* 0.9721	* 0.9704	* 0.9178	* 0.7865	* F-SUB-Q			
	* 2.1196	* 2.1412	* 2.2174	* 2.5888	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1904	1.1449	1.2186	1.3676	1.7899	1.5510	1.8450	0.9619
	1.5204	1.8659	1.9533	1.7137	1.3557	1.4786	1.3044	2.2072
9	1.1449	1.5482	1.4126	1.7538	1.4488	1.5471	1.8373	0.9602
	1.8659	1.5457	1.6757	1.3909	1.6122	1.4891	1.3100	2.2329
10	1.2186	1.4128	1.2049	1.3358	1.7582	1.5335	1.8015	0.9056
	1.9533	1.6754	1.9743	1.7607	1.3858	1.4995	1.3383	2.3245
11	1.3676	1.7538	1.3361	1.6839	1.2994	1.7155	1.6913	0.7804
	1.7137	1.3909	1.7604	1.4208	1.7511	1.3979	1.4343	2.7170
12	1.7899	1.4488	1.7583	1.2994	1.1352	1.4558	1.0096	
	1.3557	1.6122	1.3857	1.7511	1.6342	1.4338	2.0245	
13	1.5510	1.5473	1.5337	1.7156	1.4558	0.8425	0.5246	
	1.4786	1.4890	1.4993	1.3979	1.4338	2.0229	3.5707	
14	1.8450	1.8374	1.8016	1.6914	1.0096	0.5245		
	1.3044	1.3100	1.3382	1.4342	2.0242	3.5710		
15	0.9619	0.9598	0.9066	0.7809	F-SUB-Q			
	2.2072	2.2322	2.3245	2.7176	M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2542	1.1654	1.2152	1.3584	1.7824	1.5385	1.8377	0.9522
	1.5674	1.9321	2.0690	1.8127	1.4269	1.5555	1.3650	2.3235
9	1.1654	1.5641	1.4116	1.7501	1.4388	1.5389	1.8316	0.9513
	1.9321	1.5969	1.7724	1.4656	1.7041	1.5672	1.3713	2.3501
10	1.2152	1.4118	1.2014	1.3342	1.7624	1.5311	1.8043	0.8998
	2.0690	1.7721	2.0923	1.8628	1.4589	1.5790	1.4026	2.4496
11	1.3584	1.7501	1.3346	1.7063	1.3134	1.7393	1.7118	0.7794
	1.8127	1.4656	1.8625	1.4687	1.8143	1.4417	1.4791	2.8694
12	1.7824	1.4388	1.7624	1.3135	1.1915	1.5086	1.0294	
	1.4269	1.7041	1.4589	1.8142	1.6862	1.4733	2.0916	
13	1.5385	1.5390	1.5313	1.7394	1.5086	0.8920	0.5398	
	1.5555	1.5671	1.5789	1.4417	1.4733	2.0949	3.7021	
14	1.8377	1.8317	1.8044	1.7119	1.0293	0.5397		
	1.3650	1.3713	1.4025	1.4791	2.0913	3.7024		
15	0.9522	0.9509	0.9008	0.7799	F-SUB-Q			
	2.3235	2.3494	2.4497	2.8701	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 16 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4021	* 1.2031	* 1.2151	* 1.3542	* 1.7836	* 1.5308	* 1.8372	* 0.9425
	* 1.6360	* 2.0251	* 2.2045	* 1.9291	* 1.5092	* 1.6473	* 1.4371	* 2.4702
9	* 1.2031	* 1.5951	* 1.4184	* 1.7555	* 1.4343	* 1.5359	* 1.8330	* 0.9407
	* 2.0251	* 1.6651	* 1.8733	* 1.5517	* 1.8121	* 1.6601	* 1.4442	* 2.5022
10	* 1.2151	* 1.4187	* 1.2056	* 1.3389	* 1.7797	* 1.5395	* 1.8151	* 0.8933
	* 2.2045	* 1.8729	* 2.2057	* 1.9657	* 1.5161	* 1.6677	* 1.4785	* 2.6089
11	* 1.3542	* 1.7555	* 1.3392	* 1.7460	* 1.3428	* 1.7754	* 1.7428	* 0.7774
	* 1.9291	* 1.5516	* 1.9654	* 1.5297	* 1.8986	* 1.4987	* 1.5302	* 3.0633
12	* 1.7836	* 1.4343	* 1.7798	* 1.3429	* 1.3136	* 1.6140	* 1.0545	
	* 1.5092	* 1.8121	* 1.5161	* 1.8986	* 1.7617	* 1.5312	* 2.1930	
13	* 1.5308	* 1.5361	* 1.5397	* 1.7755	* 1.6140	* 0.9814	* 0.5603	
	* 1.6473	* 1.6600	* 1.6675	* 1.4987	* 1.5312	* 2.1986	* 3.8952	
14	* 1.8372	* 1.8330	* 1.8152	* 1.7429	* 1.0545	* 0.5601		
	* 1.4371	* 1.4442	* 1.4784	* 1.5301	* 2.1928	* 3.8957		
15	* 0.9425	* 0.9403	* 0.8942	* 0.7779	* F-SUB-Q			
	* 2.4702	* 2.5014	* 2.6089	* 3.0640	* M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5979	* 1.2583	* 1.2228	* 1.3410	* 1.7572	* 1.5094	* 1.8066	* 0.9396
	* 1.7502	* 2.1541	* 2.3114	* 2.0821	* 1.6336	* 1.7741	* 1.5506	* 2.6277
9	* 1.2583	* 1.6044	* 1.4116	* 1.7334	* 1.4190	* 1.5191	* 1.8041	* 0.9423
	* 2.1542	* 1.7733	* 1.9868	* 1.6810	* 1.9559	* 1.7887	* 1.5585	* 2.6501
10	* 1.2228	* 1.4119	* 1.2093	* 1.3338	* 1.7770	* 1.5351	* 1.7952	* 0.9037
	* 2.3114	* 1.9863	* 2.3178	* 2.0778	* 1.6073	* 1.7647	* 1.5940	* 2.7462
11	* 1.3410	* 1.7334	* 1.3341	* 1.7563	* 1.3594	* 1.7800	* 1.7426	* 0.7896
	* 2.0821	* 1.6810	* 2.0775	* 1.6198	* 2.0036	* 1.5841	* 1.6182	* 3.1764
12	* 1.7572	* 1.4190	* 1.7770	* 1.3594	* 1.4065	* 1.6836	* 1.0898	
	* 1.6336	* 1.9559	* 1.6072	* 2.0036	* 1.8772	* 1.6324	* 2.2810	
13	* 1.5094	* 1.5192	* 1.5353	* 1.7801	* 1.6835	* 1.0613	* 0.5875	
	* 1.7741	* 1.7886	* 1.7645	* 1.5841	* 1.6324	* 2.3100	* 4.0695	
14	* 1.8066	* 1.8042	* 1.7953	* 1.7427	* 1.0898	* 0.5873		
	* 1.5506	* 1.5585	* 1.5940	* 1.6181	* 2.2807	* 4.0699		
15	* 0.9396	* 0.9420	* 0.9048	* 0.7902	* F-SUB-Q			
	* 2.6277	* 2.6493	* 2.7455	* 3.1773	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6806	1.3040	1.2198	1.3448	1.7764	1.5124	1.8252	0.9290
	1.8160	2.2566	2.4603	2.2154	1.7319	1.8903	1.6374	2.8335
9	1.3040	1.6636	1.4266	1.7561	1.4233	1.5259	1.8242	0.9299
	2.2566	1.8438	2.0880	1.7576	2.0843	1.9053	1.6458	2.8639
10	1.2198	1.4270	1.2106	1.3458	1.8143	1.5543	1.8229	0.8879
	2.4603	2.0875	2.4655	2.1877	1.6755	1.8505	1.6615	2.9887
11	1.3448	1.7561	1.3461	1.8019	1.3825	1.8256	1.7845	0.7806
	2.2154	1.7574	2.1875	1.6870	2.1047	1.6467	1.6810	3.4060
12	1.7764	1.4233	1.8144	1.3825	1.4647	1.7561	1.0992	
	1.7319	2.0844	1.6755	2.1046	1.9577	1.6906	2.4214	
13	1.5124	1.5260	1.5544	1.8257	1.7561	1.0914	0.5941	
	1.8903	1.9052	1.8503	1.6467	1.6906	2.4460	4.3356	
14	1.8252	1.8242	1.8230	1.7846	1.0992	0.5939		
	1.6374	1.6457	1.6614	1.6809	2.4211	4.3361		
15	0.9290	0.9295	0.8888	0.7812	F-SUB-Q			
	2.8335	2.8631	2.9888	3.4068	M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7089	1.3203	1.2208	1.3408	1.7739	1.5049	1.8208	0.9236
	1.8417	2.2807	2.4760	2.2396	1.7645	1.9773	1.7214	3.0044
9	1.3203	1.6838	1.4283	1.7568	1.4185	1.5210	1.8225	0.9253
	2.2807	1.8625	2.1074	1.7818	2.1146	1.9644	1.7204	3.0274
10	1.2208	1.4287	1.2109	1.3483	1.8227	1.5568	1.8250	0.8855
	2.4760	2.1068	2.4954	2.2284	1.7194	1.9137	1.7182	3.1070
11	1.3408	1.7570	1.3486	1.8144	1.3890	1.8396	1.7964	0.7812
	2.2396	1.7816	2.2281	1.7276	2.1656	1.7048	1.7457	3.5360
12	1.7739	1.4185	1.8227	1.3891	1.4847	1.7817	1.1096	
	1.7645	2.1146	1.7193	2.1656	2.0419	1.7631	2.5184	
13	1.5049	1.5211	1.5569	1.8396	1.7817	1.1082	0.6008	
	1.9773	1.9642	1.9135	1.7048	1.7631	2.5553	4.5387	
14	1.8208	1.8226	1.8251	1.7965	1.1095	0.6006		
	1.7214	1.7203	1.7181	1.7456	2.5181	4.5392		
15	0.9236	0.9249	0.8864	0.7817	F-SUB-Q			
	3.0044	3.0266	3.1072	3.5369	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7044	1.3195	1.2235	1.3294	1.7527	1.4882	1.7977	0.9217
	1.8502	2.2842	2.4576	2.2427	1.7729	1.9806	1.7275	2.9757
9	1.3195	1.6762	1.4181	1.7385	1.4054	1.5061	1.8013	0.9260
	2.2842	1.8714	2.1125	1.7902	2.1188	1.9695	1.7281	2.9933
10	1.2235	1.4186	1.2140	1.3407	1.8071	1.5453	1.8061	0.8937
	2.4576	2.1119	2.4799	2.2322	1.7281	1.9198	1.7261	3.0555
11	1.3294	1.7387	1.3410	1.8012	1.3828	1.8268	1.7841	0.7885
	2.2427	1.7900	2.2318	1.7364	2.1702	1.7135	1.7533	3.4857
12	1.7527	1.4053	1.8072	1.3828	1.4813	1.7752	1.1211	
	1.7729	2.1189	1.7280	2.1701	2.0506	1.7731	2.4925	
13	1.4882	1.5062	1.5455	1.8268	1.7752	1.1200	0.6084	
	1.9806	1.9694	1.9197	1.7135	1.7731	2.5368	4.4935	
14	1.7977	1.8014	1.8062	1.7842	1.1211	0.6082		
	1.7275	1.7281	1.7260	1.7533	2.4922	4.4941		
15	0.9217	0.9256	0.8949	0.7890	F-SUB-Q			
	2.9757	2.9924	3.0547	3.4866	M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7306	1.3282	1.2150	1.3310	1.7690	1.4909	1.8160	0.9114
	1.8216	2.2571	2.4363	2.2074	1.7370	1.9414	1.6794	2.9451
9	1.3282	1.6999	1.4255	1.7569	1.4073	1.5103	1.8214	0.9137
	2.2571	1.8371	2.0737	1.7544	2.0889	1.9424	1.6855	2.9711
10	1.2150	1.4259	1.2046	1.3445	1.8284	1.5542	1.8284	0.8771
	2.4363	2.0731	2.4621	2.2099	1.6989	1.8968	1.6908	3.0743
11	1.3310	1.7571	1.3448	1.8236	1.3881	1.8510	1.8099	0.7754
	2.2074	1.7544	2.2096	1.7091	2.1543	1.6857	1.7219	3.5120
12	1.7690	1.4072	1.8284	1.3881	1.4941	1.8030	1.1122	
	1.7370	2.0890	1.6989	2.1542	2.0309	1.7434	2.5085	
13	1.4909	1.5104	1.5543	1.8510	1.8030	1.1133	0.6001	
	1.9414	1.9422	1.8967	1.6856	1.7434	2.5495	4.5331	
14	1.8160	1.8214	1.8285	1.8100	1.1122	0.5999		
	1.6794	1.6855	1.6907	1.7218	2.5082	4.5337		
15	0.9114	0.9133	0.8779	0.7759	F-SUB-Q			
	2.9451	2.9704	3.0745	3.5128	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7394	1.3296	1.2107	1.3280	1.7707	1.4872	1.8188	0.9056
	1.6686	2.0679	2.2576	2.0536	1.6160	1.8241	1.5795	2.7631
9	1.3296	1.7071	1.4249	1.7602	1.4037	1.5073	1.8252	0.9054
	2.0679	1.6829	1.9173	1.6287	1.9464	1.8243	1.5831	2.7939
10	1.2107	1.4254	1.2016	1.3428	1.8329	1.5540	1.8349	0.8718
	2.2576	1.9166	2.2778	2.0502	1.5864	1.7796	1.5893	2.8761
11	1.3280	1.7603	1.3431	1.8287	1.3870	1.8581	1.8182	0.7706
	2.0536	1.6286	2.0499	1.5880	2.0055	1.5767	1.6106	3.2783
12	1.7707	1.4036	1.8329	1.3870	1.4957	1.8115	1.1095	
	1.6160	1.9465	1.5864	2.0055	1.8987	1.6295	2.3390	
13	1.4872	1.5075	1.5541	1.8581	1.8115	1.1103	0.5961	
	1.8241	1.8242	1.7794	1.5767	1.6296	2.3781	4.1997	
14	1.8188	1.8253	1.8350	1.8182	1.1095	0.5959		
	1.5795	1.5831	1.5893	1.6106	2.3388	4.2003		
15	0.9056	0.9049	0.8726	0.7711	F-SUB-Q			
	2.7631	2.7933	2.8763	3.2790	M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7409	1.3286	1.2111	1.3238	1.7673	1.4815	1.8153	0.9032
	1.5342	1.9053	2.0818	1.8924	1.4877	1.6868	1.4580	2.5552
9	1.3286	1.7077	1.4223	1.7578	1.3991	1.5023	1.8222	0.9065
	1.9053	1.5487	1.7713	1.5002	1.7939	1.6819	1.4599	2.5728
10	1.2111	1.4228	1.1985	1.3392	1.8308	1.5499	1.8334	0.8716
	2.0818	1.7706	2.1073	1.8946	1.4631	1.6448	1.4655	2.6445
11	1.3238	1.7580	1.3395	1.8273	1.3836	1.8573	1.8177	0.7711
	1.8924	1.5002	1.8943	1.4634	1.8519	1.4527	1.4838	3.0225
12	1.7673	1.3989	1.8308	1.3836	1.4929	1.8112	1.1112	
	1.4877	1.7940	1.4631	1.8518	1.7498	1.4988	2.1502	
13	1.4815	1.5024	1.5500	1.8573	1.8112	1.1110	0.5957	
	1.6868	1.6818	1.6446	1.4527	1.4988	2.1858	3.8686	
14	1.8153	1.8223	1.8335	1.8178	1.1111	0.5956		
	1.4580	1.4599	1.4654	1.4837	2.1500	3.8691		
15	0.9032	0.9060	0.8724	0.7717	F-SUB-Q			
	2.5552	2.5722	2.6448	3.0232	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7328	* 1.3248	* 1.2165	* 1.3181	* 1.7546	* 1.4730	* 1.8013	* 0.9055
	* 1.5442	* 1.9151	* 2.0729	* 1.9024	* 1.5001	* 1.7020	* 1.4736	* 2.5593
9	* 1.3248	* 1.6980	* 1.4157	* 1.7457	* 1.3923	* 1.4937	* 1.8084	* 0.9111
	* 1.9151	* 1.5613	* 1.7804	* 1.5103	* 1.8046	* 1.6934	* 1.4743	* 2.5697
10	* 1.2165	* 1.4162	* 1.2056	* 1.3337	* 1.8183	* 1.5427	* 1.8208	* 0.8817
	* 2.0729	* 1.7797	* 2.1028	* 1.9051	* 1.4749	* 1.6528	* 1.4744	* 2.6182
11	* 1.3181	* 1.7459	* 1.3340	* 1.8151	* 1.3781	* 1.8455	* 1.8061	* 0.7790
	* 1.9024	* 1.5102	* 1.9048	* 1.4758	* 1.8629	* 1.4647	* 1.4954	* 2.9917
12	* 1.7546	* 1.3922	* 1.8183	* 1.3781	* 1.4849	* 1.7991	* 1.7991	* 1.1200
	* 1.5001	* 1.8047	* 1.4748	* 1.8629	* 1.7610	* 1.5097	* 2.1383	*
13	* 1.4730	* 1.4939	* 1.5428	* 1.8455	* 1.7991	* 1.1174	* 0.6001	*
	* 1.7020	* 1.6932	* 1.6528	* 1.4647	* 1.5097	* 2.1758	* 3.8517	*
14	* 1.8013	* 1.8085	* 1.8208	* 1.8061	* 1.1199	* 0.5999	*	*
	* 1.4736	* 1.4743	* 1.4744	* 1.4954	* 2.1381	* 3.8523	*	*
15	* 0.9055	* 0.9107	* 0.8828	* 0.7795	* F-SUB-Q			
	* 2.5593	* 2.5690	* 2.6175	* 2.9925	* M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7630	* 1.3355	* 1.2113	* 1.3261	* 1.7819	* 1.4841	* 1.8311	* 0.8986
	* 1.4092	* 1.7711	* 1.9450	* 1.7696	* 1.3823	* 1.5830	* 1.3580	* 2.4184
9	* 1.3355	* 1.7272	* 1.4290	* 1.7737	* 1.4013	* 1.5057	* 1.8390	* 0.8996
	* 1.7711	* 1.4312	* 1.6470	* 1.3897	* 1.6781	* 1.5718	* 1.3565	* 2.4408
10	* 1.2113	* 1.4296	* 1.1985	* 1.3421	* 1.8476	* 1.5566	* 1.8526	* 0.8673
	* 1.9450	* 1.6463	* 1.9677	* 1.7647	* 1.3519	* 1.5272	* 1.3540	* 2.4917
11	* 1.3261	* 1.7739	* 1.3424	* 1.8447	* 1.3867	* 1.8776	* 1.8383	* 0.7657
	* 1.7696	* 1.3896	* 1.7644	* 1.3527	* 1.7246	* 1.3411	* 1.3682	* 2.8411
12	* 1.7819	* 1.4012	* 1.8476	* 1.3867	* 1.4997	* 1.8306	* 1.1099	*
	* 1.3823	* 1.6782	* 1.3519	* 1.7245	* 1.6217	* 1.3833	* 2.0117	*
13	* 1.4841	* 1.5058	* 1.5567	* 1.8776	* 1.8306	* 1.1090	* 0.5902	*
	* 1.5830	* 1.5717	* 1.5271	* 1.3411	* 1.3833	* 2.0439	* 3.6576	*
14	* 1.8311	* 1.8390	* 1.8527	* 1.8383	* 1.1098	* 0.5900	*	*
	* 1.3580	* 1.3565	* 1.3540	* 1.3682	* 2.0116	* 3.6582	*	*
15	* 0.8986	* 0.8990	* 0.8681	* 0.7663	* F-SUB-Q			
	* 2.4184	* 2.4404	* 2.4919	* 2.8417	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7701	1.3379	1.2122	1.3270	1.7869	1.4854	1.8362	0.8969
	1.3138	1.6600	1.8364	1.6725	1.3029	1.4966	1.2807	2.2946
9	1.3379	1.7335	1.4316	1.7789	1.4024	1.5072	1.8442	0.8981
	1.6600	1.3401	1.5525	1.3088	1.5857	1.4842	1.2779	2.3154
10	1.2122	1.4322	1.1984	1.3426	1.8527	1.5588	1.8582	0.8661
	1.8364	1.5518	1.8584	1.6640	1.2704	1.4379	1.2733	2.3598
11	1.3270	1.7790	1.3429	1.8498	1.3871	1.8835	1.8440	0.7638
	1.6725	1.3087	1.6637	1.2699	1.6236	1.2580	1.2838	2.6888
12	1.7869	1.4022	1.8527	1.3870	1.5015	1.8361	1.1095	
	1.3029	1.5858	1.2704	1.6235	1.5171	1.2933	1.8920	
13	1.4854	1.5073	1.5589	1.8835	1.8360	1.1086	0.5880	
	1.4966	1.4841	1.4378	1.2580	1.2933	1.9179	3.4498	
14	1.8362	1.8442	1.8583	1.8441	1.1094	0.5878		
	1.2807	1.2779	1.2733	1.2838	1.8918	3.4504		
15	0.8969	0.8974	0.8669	0.7644	F-SUB-Q			
	2.2946	2.3149	2.3600	2.6893	M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7411	1.3253	1.2148	1.3145	1.7576	1.4693	1.8035	0.8971
	1.2668	1.5909	1.7498	1.6125	1.2643	1.4448	1.2443	2.1929
9	1.3253	1.7047	1.4164	1.7489	1.3887	1.4908	1.8109	0.9030
	1.5909	1.2931	1.4975	1.2697	1.5292	1.4320	1.2411	2.2003
10	1.2148	1.4170	1.2018	1.3288	1.8202	1.5406	1.8239	0.8759
	1.7498	1.4968	1.7755	1.6032	1.2312	1.3857	1.2353	2.2281
11	1.3145	1.7491	1.3291	1.8175	1.3736	1.8494	1.8091	0.7704
	1.6125	1.2696	1.6029	1.2303	1.5628	1.2185	1.2447	2.5427
12	1.7576	1.3885	1.8202	1.3736	1.4822	1.8020	1.1144	
	1.2643	1.5294	1.2312	1.5627	1.4594	1.2494	1.7915	
13	1.4693	1.4910	1.5407	1.8494	1.8020	1.1127	0.5917	
	1.4448	1.4319	1.3856	1.2185	1.2495	1.8141	3.2617	
14	1.8035	1.8109	1.8240	1.8092	1.1143	0.5915		
	1.2443	1.2411	1.2352	1.2447	1.7914	3.2623		
15	0.8971	0.9025	0.8772	0.7710	F-SUB-Q			
	2.1929	2.1999	2.2273	2.5433	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7219	* 1.3091	* 1.1874	* 1.2976	* 1.7417	* 1.4535	* 1.7852	* 0.8729
	* 1.2267	* 1.5449	* 1.7206	* 1.5725	* 1.2267	* 1.4060	* 1.2094	* 2.1720
9	* 1.3091	* 1.6890	* 1.4038	* 1.7317	* 1.3722	* 1.4751	* 1.7923	* 0.8756
	* 1.5449	* 1.2512	* 1.4511	* 1.2314	* 1.4900	* 1.3928	* 1.2058	* 2.1867
10	* 1.1874	* 1.4045	* 1.1715	* 1.3098	* 1.8002	* 1.5215	* 1.8030	* 0.8442
	* 1.7206	* 1.4504	* 1.7463	* 1.5632	* 1.1942	* 1.3480	* 1.1993	* 2.2266
11	* 1.2976	* 1.7319	* 1.3101	* 1.7982	* 1.3517	* 1.8271	* 1.7853	* 0.7410
	* 1.5725	* 1.2313	* 1.5629	* 1.1918	* 1.5239	* 1.1817	* 1.2092	* 2.5448
12	* 1.7417	* 1.3721	* 1.8003	* 1.3516	* 1.4656	* 1.7819	* 1.0792	
	* 1.2267	* 1.4901	* 1.1942	* 1.5238	* 1.4142	* 1.2105	* 1.7746	
13	* 1.4535	* 1.4753	* 1.5216	* 1.8271	* 1.7819	* 1.0829	* 0.5713	
	* 1.4060	* 1.3927	* 1.3480	* 1.1817	* 1.2105	* 1.7872	* 3.2485	
14	* 1.7852	* 1.7923	* 1.8031	* 1.7854	* 1.0791	* 0.5711		
	* 1.2094	* 1.2058	* 1.1992	* 1.2092	* 1.7745	* 3.2491		
15	* 0.8729	* 0.8751	* 0.8450	* 0.7416	* F-SUB-Q			
	* 2.1720	* 2.1864	* 2.2268	* 2.5452	* M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5990	* 1.2345	* 1.1164	* 1.2222	* 1.6210	* 1.3693	* 1.6556	* 0.8193
	* 1.2777	* 1.5860	* 1.7673	* 1.6162	* 1.2747	* 1.4460	* 1.2615	* 2.2469
9	* 1.2345	* 1.5721	* 1.3254	* 1.6102	* 1.2940	* 1.3889	* 1.6616	* 0.8205
	* 1.5860	* 1.3005	* 1.4884	* 1.2805	* 1.5291	* 1.4320	* 1.2574	* 2.2650
10	* 1.1164	* 1.3260	* 1.1055	* 1.2312	* 1.6695	* 1.4297	* 1.6692	* 0.7921
	* 1.7673	* 1.4877	* 1.7906	* 1.6093	* 1.2446	* 1.3874	* 1.2521	* 2.3031
11	* 1.2222	* 1.6104	* 1.2315	* 1.6700	* 1.2704	* 1.6889	* 1.6470	* 0.6914
	* 1.6162	* 1.2804	* 1.6090	* 1.2404	* 1.5680	* 1.2335	* 1.2669	* 2.6468
12	* 1.6210	* 1.2939	* 1.6695	* 1.2704	* 1.3778	* 1.6514	* 1.0091	
	* 1.2747	* 1.5293	* 1.2445	* 1.5680	* 1.4550	* 1.2624	* 1.8371	
13	* 1.3693	* 1.3890	* 1.4298	* 1.6889	* 1.6513	* 1.0181	* 0.5359	
	* 1.4460	* 1.4319	* 1.3874	* 1.2335	* 1.2624	* 1.8409	* 3.3616	
14	* 1.6556	* 1.6616	* 1.6693	* 1.6470	* 1.0090	* 0.5357		
	* 1.2615	* 1.2573	* 1.2520	* 1.2669	* 1.8370	* 3.3623		
15	* 0.8193	* 0.8199	* 0.7929	* 0.6919	* F-SUB-Q			
	* 2.2469	* 2.2652	* 2.3032	* 2.6472	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 350 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.3146	* 1.0311	* 0.9393	* 1.0194	* 1.3327	* 1.1379	* 1.3517	* 0.6806
	* 1.5143	* 1.8516	* 2.0500	* 1.8893	* 1.5100	* 1.6966	* 1.5045	* 2.6406
9	* 1.0311	* 1.2943	* 1.1109	* 1.3240	* 1.0831	* 1.1525	* 1.3560	* 0.6871
	* 1.8516	* 1.5389	* 1.7321	* 1.5167	* 1.7809	* 1.6814	* 1.5001	* 2.6402
10	* 0.9393	* 1.1114	* 0.9275	* 1.0275	* 1.3676	* 1.1834	* 1.3597	* 0.6596
	* 2.0500	* 1.7313	* 2.0828	* 1.8798	* 1.4790	* 1.6323	* 1.4960	* 2.6983
11	* 1.0194	* 1.3241	* 1.0277	* 1.3746	* 1.0586	* 1.3777	* 1.3347	* 0.5709
	* 1.8893	* 1.5167	* 1.8795	* 1.4674	* 1.8334	* 1.4718	* 1.5230	* 3.1286
12	* 1.3327	* 1.0830	* 1.3676	* 1.0586	* 1.1607	* 1.3461	* 0.8323	
	* 1.5100	* 1.7810	* 1.4790	* 1.8333	* 1.6832	* 1.5077	* 2.1734	
13	* 1.1379	* 1.1526	* 1.1835	* 1.3777	* 1.3461	* 0.8500	* 0.4458	
	* 1.6966	* 1.6813	* 1.6323	* 1.4718	* 1.5077	* 2.1516	* 3.9476	
14	* 1.3517	* 1.3560	* 1.3598	* 1.3347	* 0.8322	* 0.4457		
	* 1.5045	* 1.5000	* 1.4960	* 1.5229	* 2.1732	* 3.9482		
15	* 0.6806	* 0.6866	* 0.6605	* 0.5714	* F-SUB-Q			
	* 2.6406	* 2.6402	* 2.6975	* 3.1291	* M-SUB-Q			

AT 75% POWER, 350 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.5651	* 0.4780	* 0.4481	* 0.4829	* 0.5729	* 0.4946	* 0.5485	* 0.3036
	* 3.4507	* 3.9145	* 4.2150	* 3.9015	* 3.4371	* 3.8040	* 3.6147	* 5.7843
9	* 0.4780	* 0.5529	* 0.4856	* 0.5670	* 0.5019	* 0.5004	* 0.5493	* 0.3053
	* 3.9145	* 3.5312	* 3.8778	* 3.4659	* 3.7570	* 3.7749	* 3.6111	* 5.8061
10	* 0.4481	* 0.4858	* 0.4434	* 0.4859	* 0.5841	* 0.5108	* 0.5494	* 0.2968
	* 4.2150	* 3.8763	* 4.2663	* 3.8874	* 3.3846	* 3.6878	* 3.6114	* 5.8625
11	* 0.4829	* 0.5671	* 0.4860	* 0.5703	* 0.4993	* 0.5837	* 0.5333	* 0.2616
	* 3.9015	* 3.4657	* 3.8869	* 3.4574	* 3.7989	* 3.3942	* 3.7202	* 6.6770
12	* 0.5729	* 0.5019	* 0.5841	* 0.4993	* 0.4995	* 0.5442	* 0.3684	
	* 3.4371	* 3.7571	* 3.3845	* 3.7989	* 3.8173	* 3.6420	* 4.7944	
13	* 0.4946	* 0.5004	* 0.5108	* 0.5837	* 0.5442	* 0.3778	* 0.2086	
	* 3.8040	* 3.7747	* 3.6877	* 3.3943	* 3.6421	* 4.7277	* 8.2566	
14	* 0.5485	* 0.5493	* 0.5495	* 0.5333	* 0.3684	* 0.2086		
	* 3.6147	* 3.6110	* 3.6113	* 3.7200	* 4.7940	* 8.2574		
15	* 0.3036	* 0.3052	* 0.2969	* 0.2618	* F-SUB-Q			
	* 5.7843	* 5.8044	* 5.8653	* 6.6793	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4700	* 0.5348	* 0.5857	* 0.6443	* 0.7511	* 0.6703	* 0.7207	* 0.4316
	* 3.1363	* 3.4978	* 3.5043	* 3.1655	* 2.9217	* 3.0608	* 3.1027	* 4.3427
9	* 0.5348	* 0.6487	* 0.6245	* 0.7309	* 0.6721	* 0.6691	* 0.7160	* 0.4288
	* 3.4978	* 3.3646	* 3.2867	* 2.9878	* 3.0311	* 3.0715	* 3.1187	* 4.4171
10	* 0.5857	* 0.6247	* 0.5841	* 0.6228	* 0.7219	* 0.6478	* 0.6903	* 0.4071
	* 3.5043	* 3.2861	* 3.5732	* 3.2798	* 3.0051	* 3.1004	* 3.1565	* 4.5104
11	* 0.6443	* 0.7310	* 0.6228	* 0.6680	* 0.5809	* 0.6628	* 0.6271	* 0.3513
	* 3.1655	* 2.9877	* 3.2796	* 3.2709	* 3.4333	* 3.2289	* 3.4250	* 5.1553
12	* 0.7511	* 0.6721	* 0.7220	* 0.5809	* 0.4492	* 0.5316	* 0.4117	
	* 2.9217	* 3.0309	* 3.0050	* 3.4332	* 3.2508	* 3.3718	* 4.1795	
13	* 0.6703	* 0.6691	* 0.6478	* 0.6628	* 0.5316	* 0.3446	* 0.2410	
	* 3.0608	* 3.0715	* 3.1003	* 3.2288	* 3.3718	* 3.9681	* 6.4571	
14	* 0.7207	* 0.7160	* 0.6903	* 0.6272	* 0.4117	* 0.2409		
	* 3.1027	* 3.1186	* 3.1563	* 3.4248	* 4.1790	* 6.4569		
15	* 0.4316	* 0.4287	* 0.4075	* 0.3515	* F-SUB-Q			
	* 4.3427	* 4.4146	* 4.5110	* 5.1568	* M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.9050	* 0.9767	* 1.0532	* 1.1670	* 1.4525	* 1.3099	* 1.4710	* 0.8470
	* 1.7018	* 1.9345	* 1.9988	* 1.7955	* 1.5519	* 1.6129	* 1.5604	* 2.2727
9	* 0.9767	* 1.2574	* 1.2069	* 1.4162	* 1.2364	* 1.3067	* 1.4624	* 0.8424
	* 1.9345	* 1.7528	* 1.7384	* 1.5824	* 1.6927	* 1.6092	* 1.5596	* 2.2948
10	* 1.0532	* 1.2071	* 1.0507	* 1.1301	* 1.4013	* 1.2703	* 1.4167	* 0.7904
	* 1.9988	* 1.7381	* 2.0362	* 1.8488	* 1.5907	* 1.6230	* 1.5781	* 2.3777
11	* 1.1670	* 1.4162	* 1.1303	* 1.3325	* 1.0624	* 1.3130	* 1.2967	* 0.6748
	* 1.7955	* 1.5824	* 1.8486	* 1.6589	* 1.8989	* 1.6746	* 1.6962	* 2.7585
12	* 1.4525	* 1.2364	* 1.4014	* 1.0624	* 0.8758	* 1.0931	* 0.8151	
	* 1.5519	* 1.6927	* 1.5906	* 1.8988	* 1.7089	* 1.6696	* 2.1375	
13	* 1.3099	* 1.3067	* 1.2704	* 1.3131	* 1.0931	* 0.6694	* 0.4575	
	* 1.6129	* 1.6091	* 1.6229	* 1.6746	* 1.6696	* 2.0769	* 3.4498	
14	* 1.4710	* 1.4625	* 1.4168	* 1.2968	* 0.8151	* 0.4574		
	* 1.5604	* 1.5596	* 1.5780	* 1.6961	* 2.1372	* 3.4498		
15	* 0.8470	* 0.8421	* 0.7912	* 0.6753	* F-SUB-Q			
	* 2.2727	* 2.2937	* 2.3778	* 2.7591	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0552	1.1088	1.1963	1.3269	1.6695	1.4941	1.7076	0.9830
	1.5157	1.7372	1.7894	1.6032	1.3680	1.4197	1.3460	1.9629
9	1.1088	1.4401	1.3632	1.6287	1.3995	1.4891	1.6978	0.9807
	1.7372	1.5460	1.5582	1.3954	1.5179	1.4258	1.3493	1.9882
10	1.1963	1.3634	1.1860	1.2847	1.6167	1.4545	1.6461	0.9282
	1.7894	1.5580	1.8043	1.6478	1.3998	1.4375	1.3761	2.0487
11	1.3269	1.6287	1.2849	1.5318	1.2201	1.5345	1.5172	0.7946
	1.6032	1.3954	1.6476	1.4583	1.6863	1.4554	1.4727	2.3801
12	1.6695	1.3996	1.6167	1.2201	1.0097	1.2757	0.9627	
	1.3680	1.5178	1.3998	1.6863	1.5554	1.4622	1.8346	
13	1.4941	1.4892	1.4546	1.5346	1.2758	0.7777	0.5335	
	1.4197	1.4258	1.4374	1.4554	1.4622	1.8405	3.0084	
14	1.7076	1.6978	1.6462	1.5173	0.9627	0.5333		
	1.3460	1.3493	1.3760	1.4726	1.8344	3.0085		
15	0.9830	0.9805	0.9293	0.7951	F-SUB-Q			
	1.9629	1.9871	2.0485	2.3806	M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1347	1.1486	1.2379	1.3860	1.7779	1.5681	1.8349	1.0188
	1.4428	1.6906	1.7566	1.5578	1.3016	1.3663	1.2632	1.9097
9	1.1486	1.5308	1.4258	1.7373	1.4629	1.5617	1.8245	1.0144
	1.6906	1.4716	1.5121	1.3272	1.4733	1.3747	1.2678	1.9398
10	1.2379	1.4259	1.2332	1.3434	1.7285	1.5305	1.7730	0.9514
	1.7566	1.5119	1.7586	1.5993	1.3290	1.3851	1.2942	2.0248
11	1.3860	1.7373	1.3436	1.6373	1.2776	1.6573	1.6417	0.8190
	1.5578	1.3272	1.5992	1.3827	1.6280	1.3643	1.3758	2.3396
12	1.7779	1.4629	1.7286	1.2777	1.0706	1.3834	1.0025	
	1.3016	1.4733	1.3290	1.6280	1.5031	1.3802	1.7914	
13	1.5681	1.5617	1.5306	1.6573	1.3834	0.8136	0.5484	
	1.3663	1.3747	1.3850	1.3642	1.3802	1.8112	2.9883	
14	1.8349	1.8246	1.7731	1.6418	1.0025	0.5483		
	1.2632	1.2678	1.2941	1.3757	1.7912	2.9884		
15	1.0188	1.0141	0.9529	0.8196	F-SUB-Q			
	1.9097	1.9389	2.0237	2.3400	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1429	* 1.1411	* 1.2350	* 1.3779	* 1.7765	* 1.5608	* 1.8435	* 1.0166
	* 1.4675	* 1.7322	* 1.7927	* 1.5918	* 1.3225	* 1.3951	* 1.2762	* 1.9441
9	* 1.1411	* 1.5301	* 1.4167	* 1.7383	* 1.4544	* 1.5548	* 1.8335	* 1.0144
	* 1.7322	* 1.4973	* 1.5499	* 1.3474	* 1.5047	* 1.4022	* 1.2814	* 1.9712
10	* 1.2350	* 1.4169	* 1.2227	* 1.3376	* 1.7322	* 1.5266	* 1.7842	* 0.9538
	* 1.7927	* 1.5496	* 1.8061	* 1.6309	* 1.3438	* 1.4068	* 1.3033	* 2.0516
11	* 1.3779	* 1.7383	* 1.3378	* 1.6427	* 1.2830	* 1.6722	* 1.6580	* 0.8232
	* 1.5918	* 1.3473	* 1.6307	* 1.4021	* 1.6589	* 1.3739	* 1.3835	* 2.3600
12	* 1.7765	* 1.4543	* 1.7322	* 1.2831	* 1.0824	* 1.4005	* 1.0099	
	* 1.3225	* 1.5046	* 1.3438	* 1.6589	* 1.5352	* 1.3969	* 1.8155	
13	* 1.5608	* 1.5549	* 1.5268	* 1.6723	* 1.4006	* 0.8207	* 0.5486	
	* 1.3951	* 1.4022	* 1.4067	* 1.3738	* 1.3969	* 1.8488	* 3.0648	
14	* 1.8435	* 1.8335	* 1.7843	* 1.6581	* 1.0099	* 0.5484		
	* 1.2762	* 1.2814	* 1.3032	* 1.3834	* 1.8153	* 3.0649		
15	* 1.0166	* 1.0141	* 0.9550	* 0.8237	* F-SUB-Q			
	* 1.9441	* 1.9703	* 2.0511	* 2.3605	* M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1288	* 1.1275	* 1.2195	* 1.3512	* 1.7437	* 1.5304	* 1.8146	* 1.0021
	* 1.5208	* 1.7990	* 1.8543	* 1.6556	* 1.3710	* 1.4442	* 1.3163	* 2.0033
9	* 1.1275	* 1.5046	* 1.3904	* 1.7084	* 1.4259	* 1.5248	* 1.8051	* 1.0023
	* 1.7990	* 1.5505	* 1.6123	* 1.3979	* 1.5643	* 1.4516	* 1.3207	* 2.0258
10	* 1.2195	* 1.3906	* 1.2056	* 1.3138	* 1.7039	* 1.5002	* 1.7585	* 0.9460
	* 1.8543	* 1.6121	* 1.8733	* 1.6965	* 1.3948	* 1.4591	* 1.3460	* 2.1022
11	* 1.3512	* 1.7085	* 1.3141	* 1.6198	* 1.2723	* 1.6523	* 1.6399	* 0.8172
	* 1.6556	* 1.3979	* 1.6963	* 1.4474	* 1.7149	* 1.4247	* 1.4326	* 2.4313
12	* 1.7437	* 1.4259	* 1.7039	* 1.2723	* 1.0755	* 1.3882	* 1.0057	
	* 1.3710	* 1.5643	* 1.3948	* 1.7148	* 1.5952	* 1.4460	* 1.8645	
13	* 1.5304	* 1.5249	* 1.5004	* 1.6524	* 1.3882	* 0.8172	* 0.5454	
	* 1.4442	* 1.4516	* 1.4589	* 1.4246	* 1.4460	* 1.9150	* 3.1765	
14	* 1.8146	* 1.8051	* 1.7586	* 1.6400	* 1.0057	* 0.5452		
	* 1.3163	* 1.3207	* 1.3459	* 1.4325	* 1.8643	* 3.1767		
15	* 1.0021	* 1.0019	* 0.9472	* 0.8177	* F-SUB-Q			
	* 2.0033	* 2.0248	* 2.1018	* 2.4317	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1248	1.1089	1.1976	1.3305	1.7256	1.5075	1.7995	0.9811
	1.5681	1.8645	1.9523	1.7339	1.4249	1.5029	1.3588	2.0944
9	1.1089	1.4963	1.3743	1.6937	1.4041	1.5028	1.7908	0.9806
	1.8645	1.5940	1.6867	1.4544	1.6371	1.5120	1.3644	2.1206
10	1.1976	1.3745	1.1836	1.2963	1.6908	1.4819	1.7478	0.9240
	1.9523	1.6864	1.9732	1.7781	1.4516	1.5223	1.3941	2.2127
11	1.3305	1.6937	1.2965	1.6129	1.2540	1.6476	1.6366	0.8016
	1.7339	1.4544	1.7778	1.4809	1.7674	1.4585	1.4866	2.5619
12	1.7256	1.4041	1.6908	1.2540	1.0667	1.3905	0.9937	
	1.4249	1.6371	1.4516	1.7673	1.6508	1.4867	1.9356	
13	1.5075	1.5029	1.4820	1.6476	1.3905	0.8111	0.5379	
	1.5029	1.5119	1.5222	1.4585	1.4868	1.9959	3.3320	
14	1.7995	1.7908	1.7479	1.6367	0.9936	0.5378		
	1.3588	1.3644	1.3940	1.4865	1.9354	3.3322		
15	0.9811	0.9802	0.9251	0.8021	F-SUB-Q			
	2.0944	2.1196	2.2123	2.5624	M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1335	1.1072	1.1852	1.3132	1.7069	1.4857	1.7795	0.9651
	1.6139	1.9264	2.0663	1.8331	1.5000	1.5815	1.4235	2.2051
9	1.1072	1.4927	1.3624	1.6780	1.3855	1.4819	1.7718	0.9652
	1.9264	1.6440	1.7828	1.5325	1.7299	1.5919	1.4301	2.2325
10	1.1852	1.3627	1.1713	1.2835	1.6779	1.4664	1.7342	0.9110
	2.0663	1.7824	2.0898	1.8813	1.5299	1.6049	1.4638	2.3340
11	1.3132	1.6780	1.2838	1.6098	1.2476	1.6451	1.6339	0.7926
	1.8331	1.5325	1.8810	1.5303	1.8306	1.5056	1.5357	2.7103
12	1.7069	1.3854	1.6780	1.2476	1.0728	1.4006	0.9942	
	1.5000	1.7299	1.5299	1.8306	1.7039	1.5295	1.9999	
13	1.4857	1.4819	1.4665	1.6451	1.4006	0.8198	0.5400	
	1.5815	1.5918	1.6048	1.5056	1.5295	2.0671	3.4547	
14	1.7795	1.7718	1.7343	1.6340	0.9942	0.5399		
	1.4235	1.4301	1.4638	1.5357	1.9997	3.4549		
15	0.9651	0.9648	0.9121	0.7931	F-SUB-Q			
	2.2051	2.2316	2.3335	2.7108	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1824	1.1261	1.1801	1.3048	1.7015	1.4725	1.7712	0.9518
	1.6779	2.0111	2.1916	1.9462	1.5838	1.6720	1.4972	2.3399
9	1.1261	1.5101	1.3630	1.6764	1.3762	1.4723	1.7649	0.9514
	2.0111	1.7083	1.8757	1.6194	1.8355	1.6836	1.5047	2.3712
10	1.1801	1.3633	1.1691	1.2815	1.6813	1.4616	1.7344	0.8978
	2.1916	1.8753	2.1919	1.9792	1.5865	1.6922	1.5424	2.4887
11	1.3048	1.6764	1.2817	1.6299	1.2531	1.6625	1.6488	0.7842
	1.9462	1.6194	1.9790	1.5904	1.9118	1.5640	1.5900	2.8985
12	1.7015	1.3761	1.6814	1.2531	1.1084	1.4435	1.0053	
	1.5838	1.8356	1.5865	1.9117	1.7754	1.5868	2.0933	
13	1.4725	1.4723	1.4617	1.6625	1.4435	0.8554	0.5511	
	1.6720	1.6836	1.6921	1.5640	1.5868	2.1637	3.6267	
14	1.7712	1.7649	1.7345	1.6489	1.0053	0.5509		
	1.4972	1.5047	1.5423	1.5900	2.0931	3.6269		
15	0.9518	0.9511	0.8993	0.7847	F-SUB-Q			
	2.3399	2.3701	2.4873	2.8990	M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3104	1.1553	1.1906	1.2928	1.6765	1.4513	1.7401	0.9487
	1.7846	2.1302	2.2825	2.0902	1.7066	1.7931	1.6093	2.4778
9	1.1553	1.5175	1.3580	1.6558	1.3619	1.4551	1.7354	0.9528
	2.1302	1.8127	1.9789	1.7425	1.9719	1.8067	1.6178	2.5005
10	1.1906	1.3583	1.1768	1.2775	1.6677	1.4515	1.7136	0.9109
	2.2825	1.9784	2.3005	2.0812	1.6747	1.7842	1.6559	2.6004
11	1.2928	1.6558	1.2777	1.6406	1.2817	1.6667	1.6480	0.7973
	2.0902	1.7424	2.0810	1.6794	2.0124	1.6493	1.6753	2.9897
12	1.6765	1.3618	1.6677	1.2817	1.2300	1.5010	1.0422	
	1.7066	1.9720	1.6747	2.0124	1.8844	1.6874	2.1691	
13	1.4513	1.4552	1.4516	1.6668	1.5009	0.9492	0.5805	
	1.7931	1.8066	1.7841	1.6493	1.6874	2.2607	3.7764	
14	1.7401	1.7354	1.7137	1.6481	1.0421	0.5803		
	1.6093	1.6178	1.6558	1.6753	2.1689	3.7766		
15	0.9487	0.9524	0.9121	0.7978	F-SUB-Q			
	2.4778	2.4994	2.5998	2.9904	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5445	1.2207	1.1898	1.2979	1.6953	1.4536	1.7562	0.9378
	1.8482	2.2227	2.4221	2.2115	1.8032	1.9041	1.6946	2.6618
9	1.2207	1.5654	1.3766	1.6789	1.3671	1.4621	1.7532	0.9394
	2.2227	1.8773	2.0713	1.8153	2.0906	1.9183	1.7036	2.6942
10	1.1898	1.3770	1.1793	1.2903	1.7090	1.4726	1.7399	0.8937
	2.4221	2.0707	2.4272	2.1841	1.7411	1.8654	1.7204	2.8250
11	1.2979	1.6789	1.2906	1.6951	1.3059	1.7155	1.6924	0.7895
	2.2115	1.8152	2.1839	1.7433	2.1070	1.7109	1.7367	3.1950
12	1.6953	1.3670	1.7090	1.3059	1.3405	1.6209	1.0612	
	1.8032	2.0906	1.7411	2.1070	1.9609	1.7428	2.2968	
13	1.4536	1.4622	1.4727	1.7155	1.6209	1.0249	0.5969	
	1.9041	1.9182	1.8653	1.7109	1.7428	2.3899	4.0087	
14	1.7562	1.7532	1.7399	1.6924	1.0611	0.5967		
	1.6946	1.7036	1.7204	1.7367	2.2966	4.0090		
15	0.9378	0.9390	0.8950	0.7900	F-SUB-Q			
	2.6618	2.6932	2.8239	3.1957	M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6272	1.2694	1.1968	1.2975	1.6962	1.4477	1.7526	0.9334
	1.9031	2.2735	2.4566	2.2553	1.8501	2.0096	1.7995	2.8409
9	1.2694	1.6134	1.3851	1.6836	1.3657	1.4600	1.7510	0.9359
	2.2735	1.9194	2.1085	1.8606	2.1406	1.9979	1.8004	2.8669
10	1.1968	1.3855	1.1860	1.2965	1.7272	1.4812	1.7451	0.8935
	2.4566	2.1078	2.4762	2.2498	1.8120	1.9535	1.8029	2.9544
11	1.2975	1.6836	1.2967	1.7240	1.3259	1.7391	1.7126	0.7933
	2.2553	1.8605	2.2495	1.8100	2.1975	1.7975	1.8289	3.3386
12	1.6962	1.3657	1.7272	1.3259	1.4014	1.6823	1.0838	
	1.8501	2.1407	1.8120	2.1975	2.0744	1.8400	2.4185	
13	1.4477	1.4601	1.4813	1.7391	1.6822	1.0720	0.6143	
	2.0096	1.9978	1.9534	1.7975	1.8401	2.5251	4.2268	
14	1.7526	1.7510	1.7451	1.7127	1.0837	0.6141		
	1.7995	1.8004	1.8028	1.8289	2.4183	4.2271		
15	0.9334	0.9355	0.8947	0.7938	F-SUB-Q			
	2.8409	2.8659	2.9535	3.3393	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6484	1.2865	1.2066	1.2908	1.6800	1.4339	1.7322	0.9331
	1.8789	2.2372	2.3935	2.2198	1.8281	1.9822	1.7789	2.7721
9	1.2865	1.6246	1.3821	1.6714	1.3571	1.4485	1.7316	0.9387
	2.2372	1.8953	2.0772	1.8381	2.1087	1.9715	1.7801	2.7906
10	1.2066	1.3825	1.1922	1.2967	1.7214	1.4765	1.7308	0.9051
	2.3935	2.0766	2.4236	2.2155	1.7920	1.9289	1.7834	2.8549
11	1.2908	1.6715	1.2969	1.7238	1.3314	1.7383	1.7090	0.8034
	2.2198	1.8380	2.2153	1.7893	2.1655	1.7784	1.8088	3.2405
12	1.6800	1.3570	1.7214	1.3314	1.4178	1.6956	1.1056	
	1.8281	2.1088	1.7920	2.1655	2.0541	1.8286	2.3533	
13	1.4339	1.4486	1.4765	1.7382	1.6956	1.1003	0.6301	
	1.9822	1.9714	1.9289	1.7785	1.8287	2.4699	4.1152	
14	1.7322	1.7316	1.7308	1.7091	1.1055	0.6299		
	1.7789	1.7801	1.7833	1.8088	2.3531	4.1155		
15	0.9331	0.9383	0.9063	0.8038	F-SUB-Q			
	2.7721	2.7895	2.8542	3.2413	M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6835	1.3027	1.1996	1.2935	1.6961	1.4360	1.7480	0.9226
	1.8246	2.1896	2.3602	2.1640	1.7686	1.9210	1.7116	2.7072
9	1.3027	1.6554	1.3923	1.6906	1.3598	1.4529	1.7495	0.9257
	2.1896	1.8411	2.0232	1.7791	2.0555	1.9201	1.7187	2.7364
10	1.1996	1.3928	1.1892	1.3034	1.7437	1.4862	1.7517	0.8867
	2.3602	2.0225	2.3835	2.1668	1.7409	1.8830	1.7264	2.8452
11	1.2935	1.6907	1.3036	1.7498	1.3384	1.7642	1.7357	0.7913
	2.1640	1.7791	2.1665	1.7391	2.1233	1.7282	1.7552	3.2277
12	1.6961	1.3597	1.7437	1.3384	1.4376	1.7299	1.1000	
	1.7686	2.0556	1.7409	2.1233	2.0052	1.7733	2.3364	
13	1.4360	1.4530	1.4863	1.7642	1.7299	1.1003	0.6253	
	1.9210	1.9200	1.8829	1.7282	1.7734	2.4477	4.1066	
14	1.7480	1.7495	1.7518	1.7357	1.0999	0.6251		
	1.7116	1.7188	1.7264	1.7552	2.3362	4.1070		
15	0.9226	0.9252	0.8880	0.7918	F-SUB-Q			
	2.7072	2.7355	2.8440	3.2283	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 10 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6966	1.3082	1.1971	1.2915	1.6980	1.4318	1.7490	0.9169
	1.7205	2.0572	2.2363	2.0556	1.6815	1.8371	1.6367	2.5900
9	1.3082	1.6666	1.3939	1.6947	1.3570	1.4499	1.7519	0.9174
	2.0572	1.7316	1.9144	1.6942	1.9562	1.8392	1.6415	2.6242
10	1.1971	1.3944	1.1887	1.3035	1.7487	1.4865	1.7575	0.8791
	2.2363	1.9138	2.2534	2.0621	1.6665	1.8090	1.6596	2.7265
11	1.2915	1.6948	1.3037	1.7569	1.3392	1.7710	1.7439	0.7861
	2.0556	1.6942	2.0618	1.6570	2.0266	1.6570	1.6820	3.0935
12	1.6980	1.3569	1.7487	1.3391	1.4427	1.7412	1.0993	
	1.6815	1.9563	1.6665	2.0265	1.9209	1.6995	2.2378	
13	1.4318	1.4500	1.4866	1.7710	1.7412	1.1008	0.6235	
	1.8371	1.8391	1.8089	1.6571	1.6995	2.3425	3.8959	
14	1.7490	1.7519	1.7575	1.7439	1.0992	0.6233		
	1.6367	1.6415	1.6596	1.6820	2.2377	3.8963		
15	0.9169	0.9169	0.8807	0.7866	F-SUB-Q			
	2.5900	2.6232	2.7242	3.0940	M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 9 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6999	1.3088	1.1989	1.2876	1.6940	1.4255	1.7437	0.9144
	1.5851	1.8982	2.0621	1.8980	1.5537	1.7061	1.5185	2.4024
9	1.3088	1.6686	1.3922	1.6921	1.3524	1.4441	1.7471	0.9184
	1.8982	1.5964	1.7707	1.5611	1.8080	1.7025	1.5214	2.4239
10	1.1989	1.3927	1.1853	1.3005	1.7459	1.4820	1.7546	0.8821
	2.0621	1.7701	2.0881	1.9087	1.5409	1.6768	1.5326	2.5050
11	1.2876	1.6922	1.3007	1.7557	1.3362	1.7687	1.7423	0.7886
	1.8980	1.5611	1.9085	1.5304	1.8749	1.5312	1.5547	2.8490
12	1.6940	1.3523	1.7459	1.3362	1.4409	1.7412	1.1021	
	1.5537	1.8081	1.5409	1.8749	1.7743	1.5674	2.0604	
13	1.4255	1.4442	1.4821	1.7687	1.7412	1.1034	0.6244	
	1.7061	1.7024	1.6767	1.5313	1.5674	2.1558	3.5919	
14	1.7437	1.7471	1.7546	1.7423	1.1020	0.6242		
	1.5185	1.5214	1.5326	1.5547	2.0602	3.5922		
15	0.9144	0.9179	0.8833	0.7891	F-SUB-Q			
	2.4024	2.4231	2.5042	2.8495	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6945	* 1.3066	* 1.2070	* 1.2829	* 1.6821	* 1.4173	* 1.7298	* 0.9176
	* 1.5963	* 1.9082	* 2.0489	* 1.9104	* 1.5695	* 1.7245	* 1.5379	* 2.4082
9	* 1.3066	* 1.6609	* 1.3870	* 1.6811	* 1.3466	* 1.4360	* 1.7333	* 0.9244
	* 1.9082	* 1.6097	* 1.7775	* 1.5742	* 1.8212	* 1.7172	* 1.5398	* 2.4217
10	* 1.2070	* 1.3875	* 1.1914	* 1.2997	* 1.7343	* 1.4753	* 1.7419	* 0.8948
	* 2.0489	* 1.7768	* 2.0786	* 1.9150	* 1.5523	* 1.6837	* 1.5455	* 2.4778
11	* 1.2829	* 1.6812	* 1.2998	* 1.7448	* 1.3340	* 1.7571	* 1.7309	* 0.7971
	* 1.9104	* 1.5742	* 1.9146	* 1.5433	* 1.8855	* 1.5446	* 1.5678	* 2.8173
12	* 1.6821	* 1.3465	* 1.7343	* 1.3340	* 1.4343	* 1.7301	* 1.1130	*
	* 1.5695	* 1.8214	* 1.5524	* 1.8855	* 1.7867	* 1.5812	* 2.0476	*
13	* 1.4173	* 1.4361	* 1.4753	* 1.7570	* 1.7301	* 1.1120	* 0.6305	*
	* 1.7245	* 1.7171	* 1.6837	* 1.5446	* 1.5812	* 2.1446	* 3.5723	*
14	* 1.7298	* 1.7333	* 1.7419	* 1.7309	* 1.1129	* 0.6303	*	*
	* 1.5379	* 1.5398	* 1.5455	* 1.5678	* 2.0474	* 3.5727	*	*
15	* 0.9176	* 0.9240	* 0.8960	* 0.7976	* F-SUB-Q			
	* 2.4082	* 2.4209	* 2.4771	* 2.8180	* M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7224	* 1.3180	* 1.2008	* 1.2908	* 1.7075	* 1.4276	* 1.7570	* 0.9111
	* 1.4569	* 1.7628	* 1.9269	* 1.7794	* 1.4490	* 1.6067	* 1.4205	* 2.2775
9	* 1.3180	* 1.6894	* 1.4004	* 1.7074	* 1.3551	* 1.4471	* 1.7612	* 0.9129
	* 1.7628	* 1.4753	* 1.6463	* 1.4512	* 1.6962	* 1.5965	* 1.4213	* 2.3026
10	* 1.2008	* 1.4009	* 1.1885	* 1.3044	* 1.7606	* 1.4876	* 1.7710	* 0.8763
	* 1.9269	* 1.6457	* 1.9468	* 1.7773	* 1.4260	* 1.5589	* 1.4224	* 2.3715
11	* 1.2908	* 1.7075	* 1.3047	* 1.7727	* 1.3397	* 1.7845	* 1.7602	* 0.7835
	* 1.7794	* 1.4512	* 1.7771	* 1.4156	* 1.7462	* 1.4166	* 1.4362	* 2.6789
12	* 1.7075	* 1.3550	* 1.7606	* 1.3396	* 1.4486	* 1.7596	* 1.1023	*
	* 1.4490	* 1.6963	* 1.4260	* 1.7462	* 1.6442	* 1.4485	* 1.9266	*
13	* 1.4276	* 1.4472	* 1.4876	* 1.7844	* 1.7595	* 1.1038	* 0.6211	*
	* 1.6067	* 1.5964	* 1.5589	* 1.4166	* 1.4485	* 2.0134	* 3.3862	*
14	* 1.7570	* 1.7612	* 1.7710	* 1.7602	* 1.1022	* 0.6209	*	*
	* 1.4205	* 1.4213	* 1.4224	* 1.4363	* 1.9265	* 3.3866	*	*
15	* 0.9111	* 0.9124	* 0.8780	* 0.7841	* F-SUB-Q			
	* 2.2775	* 2.3019	* 2.3696	* 2.6793	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7355	* 1.3250	* 1.2063	* 1.2960	* 1.7174	* 1.4335	* 1.7675	* 0.9136
	* 1.3440	* 1.6354	* 1.8127	* 1.6782	* 1.3635	* 1.5160	* 1.3370	* 2.1535
9	* 1.3250	* 1.7015	* 1.4078	* 1.7178	* 1.3605	* 1.4532	* 1.7717	* 0.9154
	* 1.6354	* 1.3680	* 1.5459	* 1.3640	* 1.5997	* 1.5045	* 1.3369	* 2.1767
10	* 1.2063	* 1.4084	* 1.1928	* 1.3095	* 1.7709	* 1.4944	* 1.7819	* 0.8790
	* 1.8127	* 1.5452	* 1.8341	* 1.6718	* 1.3373	* 1.4650	* 1.3350	* 2.2386
11	* 1.2960	* 1.7179	* 1.3098	* 1.7836	* 1.3446	* 1.7954	* 1.7715	* 0.7854
	* 1.6782	* 1.3640	* 1.6716	* 1.3234	* 1.6392	* 1.3248	* 1.3444	* 2.5255
12	* 1.7174	* 1.3604	* 1.7708	* 1.3446	* 1.4555	* 1.7708	* 1.1066	
	* 1.3635	* 1.5998	* 1.3373	* 1.6392	* 1.5273	* 1.3449	* 1.8019	
13	* 1.4335	* 1.4533	* 1.4944	* 1.7954	* 1.7707	* 1.1081	* 0.6220	
	* 1.5160	* 1.5044	* 1.4649	* 1.3248	* 1.3449	* 1.8732	* 3.1764	
14	* 1.7675	* 1.7717	* 1.7820	* 1.7715	* 1.1065	* 0.6218		
	* 1.3370	* 1.3369	* 1.3350	* 1.3444	* 1.8019	* 3.1768		
15	* 0.9136	* 0.9149	* 0.8807	* 0.7860	F-SUB-Q			
	* 2.1535	* 2.1761	* 2.2367	* 2.5259	M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7262	* 1.3244	* 1.2217	* 1.2951	* 1.7043	* 1.4308	* 1.7528	* 0.9234
	* 1.2727	* 1.5435	* 1.6913	* 1.5899	* 1.3001	* 1.4429	* 1.2796	* 2.0308
9	* 1.3244	* 1.6895	* 1.4052	* 1.7045	* 1.3601	* 1.4498	* 1.7564	* 0.9307
	* 1.5435	* 1.2990	* 1.4628	* 1.2978	* 1.5151	* 1.4303	* 1.2778	* 2.0400
10	* 1.2217	* 1.4058	* 1.2052	* 1.3143	* 1.7569	* 1.4909	* 1.7659	* 0.9017
	* 1.6913	* 1.4621	* 1.7167	* 1.5772	* 1.2710	* 1.3873	* 1.2722	* 2.0753
11	* 1.2951	* 1.7046	* 1.3145	* 1.7691	* 1.3485	* 1.7811	* 1.7557	* 0.8014
	* 1.5899	* 1.2977	* 1.5771	* 1.2583	* 1.5462	* 1.2589	* 1.2786	* 2.3488
12	* 1.7043	* 1.3599	* 1.7569	* 1.3485	* 1.4500	* 1.7550	* 1.1246	
	* 1.3001	* 1.5152	* 1.2711	* 1.5462	* 1.4450	* 1.2782	* 1.6729	
13	* 1.4308	* 1.4500	* 1.4910	* 1.7811	* 1.7549	* 1.1239	* 0.6330	
	* 1.4429	* 1.4302	* 1.3872	* 1.2589	* 1.2783	* 1.7418	* 2.9496	
14	* 1.7528	* 1.7564	* 1.7659	* 1.7557	* 1.1245	* 0.6328		
	* 1.2796	* 1.2778	* 1.2722	* 1.2786	* 1.6728	* 2.9500		
15	* 0.9234	* 0.9303	* 0.9029	* 0.8019	F-SUB-Q			
	* 2.0308	* 2.0393	* 2.0747	* 2.3493	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7326	* 1.3261	* 1.2082	* 1.2957	* 1.7135	* 1.4348	* 1.7616	* 0.9117
	* 1.2088	* 1.4710	* 1.6334	* 1.5175	* 1.2336	* 1.3733	* 1.2143	* 1.9654
9	* 1.3261	* 1.6993	* 1.4110	* 1.7131	* 1.3608	* 1.4540	* 1.7652	* 0.9150
	* 1.4710	* 1.2318	* 1.3907	* 1.2318	* 1.4464	* 1.3611	* 1.2123	* 1.9825
10	* 1.2082	* 1.4116	* 1.1913	* 1.3068	* 1.7643	* 1.4931	* 1.7734	* 0.8803
	* 1.6334	* 1.3901	* 1.6564	* 1.5099	* 1.2068	* 1.3211	* 1.2075	* 2.0310
11	* 1.2957	* 1.7132	* 1.3071	* 1.7767	* 1.3402	* 1.7878	* 1.7615	* 0.7828
	* 1.5175	* 1.2317	* 1.5097	* 1.1944	* 1.4805	* 1.1951	* 1.2146	* 2.2973
12	* 1.7135	* 1.3607	* 1.7643	* 1.3402	* 1.4542	* 1.7627	* 1.1042	*
	* 1.2336	* 1.4465	* 1.2068	* 1.4805	* 1.3739	* 1.2127	* 1.6254	*
13	* 1.4348	* 1.4541	* 1.4931	* 1.7878	* 1.7627	* 1.1088	* 0.6204	*
	* 1.3733	* 1.3610	* 1.3210	* 1.1951	* 1.2127	* 1.6842	* 2.8768	*
14	* 1.7616	* 1.7652	* 1.7734	* 1.7615	* 1.1041	* 0.6202	*	*
	* 1.2143	* 1.2123	* 1.2074	* 1.2146	* 1.6253	* 2.8771	*	*
15	* 0.9117	* 0.9146	* 0.8817	* 0.7834	* F-SUB-Q			
	* 1.9654	* 1.9820	* 2.0300	* 2.2976	* M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6506	* 1.2771	* 1.1640	* 1.2477	* 1.6380	* 1.3843	* 1.6782	* 0.8732
	* 1.2219	* 1.4728	* 1.6300	* 1.5197	* 1.2433	* 1.3720	* 1.2281	* 1.9816
9	* 1.2771	* 1.6225	* 1.3637	* 1.6356	* 1.3120	* 1.4009	* 1.6815	* 0.8741
	* 1.4728	* 1.2428	* 1.3876	* 1.2429	* 1.4464	* 1.3620	* 1.2262	* 2.0037
10	* 1.1640	* 1.3643	* 1.1504	* 1.2560	* 1.6818	* 1.4358	* 1.6871	* 0.8429
	* 1.6300	* 1.3870	* 1.6550	* 1.5145	* 1.2188	* 1.3232	* 1.2225	* 2.0484
11	* 1.2477	* 1.6357	* 1.2562	* 1.6927	* 1.2865	* 1.7017	* 1.6713	* 0.7450
	* 1.5197	* 1.2428	* 1.5143	* 1.2073	* 1.4864	* 1.2083	* 1.2327	* 2.3316
12	* 1.6380	* 1.3119	* 1.6818	* 1.2864	* 1.4008	* 1.6773	* 1.0547	*
	* 1.2433	* 1.4465	* 1.2188	* 1.4864	* 1.3743	* 1.2270	* 1.6410	*
13	* 1.3843	* 1.4010	* 1.4359	* 1.7017	* 1.6773	* 1.0654	* 0.5949	*
	* 1.3720	* 1.3619	* 1.3232	* 1.2083	* 1.2270	* 1.6910	* 2.9005	*
14	* 1.6782	* 1.6815	* 1.6871	* 1.6713	* 1.0546	* 0.5947	*	*
	* 1.2281	* 1.2262	* 1.2224	* 1.2327	* 1.6410	* 2.9008	*	*
15	* 0.8732	* 0.8734	* 0.8436	* 0.7456	* F-SUB-Q			
	* 1.9816	* 2.0037	* 2.0487	* 2.3319	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 75% POWER, 465 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.3930	* 1.1067	* 1.0175	* 1.0797	* 1.3890	* 1.1953	* 1.4131	* 0.7485
	* 1.4052	* 1.6513	* 1.8144	* 1.7070	* 1.4236	* 1.5437	* 1.4163	* 2.2521
9	* 1.1067	* 1.3747	* 1.1876	* 1.3856	* 1.1400	* 1.2090	* 1.4160	* 0.7543
	* 1.6513	* 1.4245	* 1.5493	* 1.4240	* 1.6176	* 1.5328	* 1.4138	* 2.2613
10	* 1.0175	* 1.1881	* 1.0024	* 1.0855	* 1.4177	* 1.2377	* 1.4190	* 0.7249
	* 1.8144	* 1.5486	* 1.8459	* 1.7029	* 1.4028	* 1.4907	* 1.4111	* 2.3186
11	* 1.0797	* 1.3857	* 1.0858	* 1.4346	* 1.1119	* 1.4291	* 1.3980	* 0.6324
	* 1.7070	* 1.4240	* 1.7026	* 1.3828	* 1.6711	* 1.3957	* 1.4310	* 2.6756
12	* 1.3890	* 1.1399	* 1.4177	* 1.1119	* 1.2258	* 1.4136	* 0.8938	
	* 1.4236	* 1.6177	* 1.4028	* 1.6711	* 1.5252	* 1.4135	* 1.8832	
13	* 1.1953	* 1.2091	* 1.2377	* 1.4291	* 1.4136	* 0.9171	* 0.5104	
	* 1.5437	* 1.5327	* 1.4907	* 1.3957	* 1.4135	* 1.9108	* 3.2977	
14	* 1.4131	* 1.4160	* 1.4191	* 1.3980	* 0.8937	* 0.5102		
	* 1.4163	* 1.4138	* 1.4111	* 1.4310	* 1.8831	* 3.2981		
15	* 0.7485	* 0.7538	* 0.7258	* 0.6329	* F-SUB-Q			
	* 2.2521	* 2.2611	* 2.3181	* 2.6759	* M-SUB-Q			

AT 75% POWER, 465 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.6433	* 0.5494	* 0.5186	* 0.5479	* 0.6416	* 0.5588	* 0.6193	* 0.3557
	* 2.9690	* 3.2500	* 3.4806	* 3.2856	* 3.0109	* 3.2215	* 3.1509	* 4.6367
9	* 0.5494	* 0.6319	* 0.5569	* 0.6386	* 0.5665	* 0.5645	* 0.6197	* 0.3576
	* 3.2500	* 3.0254	* 3.2261	* 3.0162	* 3.1792	* 3.2027	* 3.1497	* 4.6677
10	* 0.5186	* 0.5571	* 0.5120	* 0.5500	* 0.6520	* 0.5742	* 0.6198	* 0.3474
	* 3.4806	* 3.2248	* 3.5324	* 3.2820	* 2.9758	* 3.1332	* 3.1498	* 4.7366
11	* 0.5479	* 0.6386	* 0.5501	* 0.6404	* 0.5620	* 0.6525	* 0.6034	* 0.3089
	* 3.2856	* 3.0161	* 3.2816	* 3.0200	* 3.2276	* 2.9818	* 3.2362	* 5.3665
12	* 0.6416	* 0.5665	* 0.6520	* 0.5620	* 0.5671	* 0.6171	* 0.4232	
	* 3.0109	* 3.1793	* 2.9758	* 3.2277	* 3.2175	* 3.1578	* 3.8879	
13	* 0.5588	* 0.5645	* 0.5742	* 0.6525	* 0.6170	* 0.4364	* 0.2538	
	* 3.2215	* 3.2026	* 3.1332	* 2.9819	* 3.1579	* 3.9243	* 6.5026	
14	* 0.6193	* 0.6197	* 0.6198	* 0.6034	* 0.4231	* 0.2537		
	* 3.1509	* 3.1497	* 3.1498	* 3.2361	* 3.8878	* 6.5028		
15	* 0.3557	* 0.3574	* 0.3476	* 0.3090	* F-SUB-Q			
	* 4.6367	* 4.6661	* 4.7390	* 5.3680	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.4188	0.4830	0.5136	0.5722	0.6731	0.5821	0.5947	0.3194
	4.0838	4.7727	4.8219	4.3114	3.6699	4.2678	4.2201	7.1812
9	0.4830	0.5876	0.5548	0.6479	0.5918	0.5651	0.5859	0.3169
	4.7727	4.2077	4.4828	3.8111	4.1677	4.3910	4.2782	7.2232
10	0.5136	0.5549	0.5000	0.5363	0.6125	0.5311	0.5409	0.2913
	4.8220	4.4820	5.0218	4.5996	4.0083	4.6179	4.5408	7.6985
11	0.5722	0.6479	0.5364	0.5524	0.4798	0.5143	0.4705	0.2338
	4.3114	3.8108	4.5986	4.3404	4.9452	4.4604	5.1667	9.4684
12	0.6731	0.5918	0.6126	0.4799	0.3577	0.3799	0.2910	
	3.6699	4.1675	4.0077	4.9448	5.0239	4.8902	6.6596	
13	0.5821	0.5652	0.5312	0.5144	0.3800	0.2307	0.1368	
	4.2678	4.3907	4.6171	4.4598	4.8900	6.2351	12.1938	
14	0.5947	0.5860	0.5410	0.4706	0.2911	0.1367		
	4.2201	4.2778	4.5398	5.1654	6.6577	12.1956		
15	0.3194	0.3169	0.2917	0.2340	F-SUB-Q			
	7.1812	7.2218	7.6938	9.4651	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0136	1.0925	1.1491	1.2615	1.6327	1.3975	1.5499	0.7578
	1.7591	2.1886	2.2255	2.0210	1.5652	1.8373	1.6743	3.1319
9	1.0925	1.4586	1.3426	1.5797	1.3363	1.3713	1.5284	0.7503
	2.1886	1.7615	1.9093	1.6152	1.9086	1.8750	1.6853	3.1413
10	1.1491	1.3427	1.1236	1.1714	1.4825	1.2804	1.4217	0.6887
	2.2255	1.9091	2.3042	2.1732	1.7113	1.9847	1.7847	3.3584
11	1.2615	1.5798	1.1717	1.3958	1.0396	1.2610	1.2140	0.5443
	2.0210	1.6151	2.1727	1.7831	2.3105	1.8731	2.0480	4.2095
12	1.6327	1.3364	1.4827	1.0397	0.8509	0.9753	0.6975	
	1.5652	1.9085	1.7111	2.3103	2.1087	1.9221	2.8641	
13	1.3975	1.3714	1.2807	1.2612	0.9754	0.5681	0.3147	
	1.8373	1.8748	1.9843	1.8729	1.9220	2.5969	5.4632	
14	1.5499	1.5285	1.4220	1.2143	0.6976	0.3146		
	1.6743	1.6851	1.7843	2.0476	2.8633	5.4642		
15	0.7578	0.7502	0.6896	0.5448	F-SUB-Q			
	3.1319	3.1410	3.3566	4.2078	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1085	1.3026	1.3865	1.4661	1.6714	1.6563	1.6860	0.8835
	1.8588	1.9570	1.8925	1.7851	1.5682	1.5864	1.5591	2.7219
9	1.3026	1.4997	1.5845	1.5967	1.5482	1.6373	1.6667	0.8704
	1.9570	1.7547	1.6579	1.6396	1.6904	1.6022	1.5748	2.7550
10	1.3865	1.5845	1.3632	1.3463	1.4923	1.5248	1.5796	0.8049
	1.8925	1.6579	1.9285	1.9384	1.7486	1.7084	1.6498	2.9403
11	1.4661	1.5968	1.3467	1.4354	1.1682	1.2793	1.3600	0.6409
	1.7851	1.6395	1.9378	1.8014	2.0521	1.9401	1.9000	3.6706
12	1.6714	1.5483	1.4925	1.1684	1.0002	1.0634	0.7975	
	1.5682	1.6903	1.7484	2.0521	1.8203	1.7623	2.5662	
13	1.6563	1.6374	1.5251	1.2796	1.0636	0.6769	0.3797	
	1.5864	1.6021	1.7080	1.9400	1.7622	2.2484	4.6554	
14	1.6860	1.6668	1.5800	1.3604	0.7976	0.3796		
	1.5591	1.5747	1.6494	1.8995	2.5654	4.6563		
15	0.8835	0.8702	0.8063	0.6415	F-SUB-Q			
	2.7219	2.7546	2.9375	3.6689	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2397	1.4109	1.5006	1.5617	1.8110	1.7996	1.8511	0.9201
	1.7591	1.9055	1.8061	1.7301	1.4918	1.5008	1.4580	2.6828
9	1.4109	1.6394	1.7225	1.7276	1.6592	1.7783	1.8302	0.9036
	1.9055	1.6590	1.5739	1.5646	1.6259	1.5169	1.4736	2.7249
10	1.5006	1.7224	1.4772	1.4372	1.6183	1.6536	1.7322	0.8365
	1.8061	1.5740	1.8346	1.8785	1.6642	1.6236	1.5494	2.9149
11	1.5617	1.7276	1.4379	1.5625	1.2285	1.3870	1.4809	0.6684
	1.7301	1.5645	1.8776	1.7265	1.9945	1.8503	1.8030	3.6358
12	1.8110	1.6593	1.6185	1.2287	1.0782	1.1621	0.8291	
	1.4918	1.6258	1.6640	1.9945	1.7408	1.6666	2.5576	
13	1.7996	1.7784	1.6540	1.3874	1.1623	0.7282	0.3981	
	1.5008	1.5167	1.6232	1.8502	1.6665	2.1886	4.6133	
14	1.8511	1.8303	1.7326	1.4814	0.8292	0.3980		
	1.4580	1.4735	1.5491	1.8025	2.5568	4.6142		
15	0.9201	0.9034	0.8381	0.6691	F-SUB-Q			
	2.6828	2.7250	2.9113	3.6338	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 20 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2969	1.4468	1.5338	1.5935	1.8696	1.8476	1.9181	0.9368
	1.8270	1.9575	1.8401	1.7625	1.5024	1.5188	1.4616	2.7386
9	1.4468	1.6996	1.7688	1.7789	1.6928	1.8238	1.8965	0.9223
	1.9575	1.6705	1.5961	1.5795	1.6568	1.5368	1.4778	2.7771
10	1.5338	1.7687	1.5088	1.4648	1.6634	1.6972	1.7978	0.8542
	1.8401	1.5962	1.8738	1.9198	1.6826	1.6435	1.5521	2.9725
11	1.5935	1.7790	1.4655	1.6053	1.2511	1.4379	1.5382	0.6834
	1.7625	1.5794	1.9188	1.7522	2.0517	1.8725	1.8023	3.6930
12	1.8696	1.6929	1.6636	1.2513	1.1093	1.2127	0.8536	
	1.5024	1.6566	1.6824	2.0517	1.7769	1.6825	2.6075	
13	1.8476	1.8240	1.6976	1.4384	1.2129	0.7563	0.4071	
	1.5188	1.5367	1.6431	1.8723	1.6825	2.2330	4.7519	
14	1.9181	1.8967	1.7982	1.5387	0.8538	0.4070		
	1.4616	1.4777	1.5517	1.8018	2.6067	4.7528		
15	0.9368	0.9219	0.8559	0.6841	F-SUB-Q			
	2.7386	2.7771	2.9687	3.6909	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 19 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3167	1.4568	1.5413	1.6007	1.8877	1.8620	1.9417	0.9450
	1.9072	2.0381	1.9200	1.8375	1.5535	1.5709	1.5056	2.8348
9	1.4568	1.7196	1.7816	1.7940	1.7004	1.8380	1.9201	0.9321
	2.0381	1.7310	1.6599	1.6396	1.7239	1.5895	1.5219	2.8688
10	1.5413	1.7815	1.5142	1.4713	1.6768	1.7126	1.8242	0.8652
	1.9200	1.6600	1.9549	2.0026	1.7471	1.7020	1.5961	3.0611
11	1.6007	1.7941	1.4721	1.6171	1.2599	1.4618	1.5654	0.6933
	1.8375	1.6395	2.0015	1.8238	2.1592	1.9583	1.8579	3.8164
12	1.8877	1.7005	1.6771	1.2600	1.1225	1.2392	0.8713	
	1.5535	1.7237	1.7468	2.1592	1.8664	1.7578	2.7177	
13	1.8620	1.8382	1.7131	1.4622	1.2394	0.7737	0.4141	
	1.5709	1.5893	1.7016	1.9582	1.7578	2.3391	4.9981	
14	1.9417	1.9203	1.8246	1.5659	0.8714	0.4140		
	1.5056	1.5218	1.5958	1.8573	2.7169	4.9991		
15	0.9450	0.9317	0.8669	0.6941	F-SUB-Q			
	2.8348	2.8688	3.0573	3.8142	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3413	1.4699	1.5530	1.6120	1.9114	1.8823	1.9732	0.9452
	1.9725	2.1252	2.0313	1.9411	1.6272	1.6429	1.5652	2.9915
9	1.4699	1.7448	1.8002	1.8184	1.7122	1.8587	1.9520	0.9320
	2.1252	1.8196	1.7501	1.7203	1.8172	1.6632	1.5827	3.0298
10	1.5530	1.8002	1.5249	1.4815	1.7014	1.7359	1.8581	0.8661
	2.0313	1.7501	2.0694	2.1199	1.8305	1.7827	1.6609	3.2400
11	1.6120	1.8184	1.4824	1.6409	1.2743	1.4948	1.6009	0.6957
	1.9411	1.7202	2.1186	1.9178	2.2775	2.0460	1.9353	4.0486
12	1.9114	1.7123	1.7017	1.2745	1.1394	1.2754	0.8817	
	1.6272	1.8171	1.8302	2.2775	1.9608	1.8372	2.8762	
13	1.8823	1.8589	1.7363	1.4952	1.2755	0.7880	0.4185	
	1.6429	1.6629	1.7822	2.0459	1.8371	2.4866	5.3489	
14	1.9732	1.9522	1.8586	1.6014	0.8818	0.4184		
	1.5652	1.5826	1.6604	1.9347	2.8754	5.3499		
15	0.9452	0.9316	0.8679	0.6964	F-SUB-Q			
	2.9915	3.0300	3.2358	4.0462	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3609	1.4781	1.5566	1.6135	1.9183	1.8882	1.9852	0.9436
	2.1052	2.2794	2.1992	2.0977	1.7478	1.7602	1.6713	3.2159
9	1.4781	1.7577	1.8075	1.8263	1.7139	1.8658	1.9648	0.9310
	2.2794	1.9630	1.8902	1.8520	1.9590	1.7823	1.6902	3.2563
10	1.5566	1.8076	1.5280	1.4851	1.7123	1.7483	1.8765	0.8674
	2.1992	1.8902	2.2422	2.2949	1.9666	1.9111	1.7729	3.4836
11	1.6135	1.8263	1.4860	1.6539	1.2873	1.5176	1.6251	0.6993
	2.0977	1.8519	2.2934	2.0397	2.4209	2.1705	2.0480	4.3577
12	1.9183	1.7140	1.7126	1.2875	1.1610	1.3117	0.8974	
	1.7478	1.9589	1.9663	2.4209	2.0925	1.9519	3.0552	
13	1.8882	1.8661	1.7488	1.5181	1.3118	0.8113	0.4276	
	1.7602	1.7821	1.9106	2.1703	1.9518	2.6693	5.7555	
14	1.9852	1.9650	1.8770	1.6256	0.8975	0.4275		
	1.6713	1.6900	1.7724	2.0474	3.0544	5.7566		
15	0.9436	0.9306	0.8691	0.7001	F-SUB-Q			
	3.2159	3.2565	3.4790	4.3550	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 16 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4027	* 1.4984	* 1.5661	* 1.6184	* 1.9298	* 1.8966	* 2.0007	* 0.9405
	* 2.2864	* 2.4609	* 2.4151	* 2.2992	* 1.9026	* 1.9133	* 1.8094	* 3.5154
9	* 1.4984	* 1.7815	* 1.8216	* 1.8402	* 1.7190	* 1.8759	* 1.9815	* 0.9281
	* 2.4609	* 2.1218	* 2.0704	* 2.0197	* 2.1412	* 1.9374	* 1.8299	* 3.5610
10	* 1.5661	* 1.8217	* 1.5374	* 1.4938	* 1.7309	* 1.7657	* 1.9011	* 0.8671
	* 2.4151	* 2.0703	* 2.4636	* 2.5193	* 2.1392	* 2.0774	* 1.9186	* 3.8106
11	* 1.6184	* 1.8402	* 1.4948	* 1.6784	* 1.3127	* 1.5492	* 1.6574	* 0.7025
	* 2.2992	* 2.0196	* 2.5176	* 2.2022	* 2.6231	* 2.3300	* 2.1857	* 4.7631
12	* 1.9298	* 1.7191	* 1.7312	* 1.3129	* 1.2052	* 1.3761	* 0.9186	
	* 1.9026	* 2.1411	* 2.1388	* 2.6231	* 2.2597	* 2.0973	* 3.3136	
13	* 1.8966	* 1.8761	* 1.7661	* 1.5496	* 1.3762	* 0.8559	* 0.4431	
	* 1.9133	* 1.9371	* 2.0768	* 2.3294	* 2.0972	* 2.8946	* 6.2463	
14	* 2.0007	* 1.9817	* 1.9016	* 1.6580	* 0.9188	* 0.4430		
	* 1.8094	* 1.8297	* 1.9181	* 2.1850	* 3.3127	* 6.2475		
15	* 0.9405	* 0.9276	* 0.8688	* 0.7033	* F-SUB-Q			
	* 3.5154	* 3.5616	* 3.8053	* 4.7603	* M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4881	* 1.5094	* 1.5552	* 1.6001	* 1.9028	* 1.8735	* 1.9720	* 0.9390
	* 2.5418	* 2.7385	* 2.6735	* 2.5229	* 2.0879	* 2.0986	* 1.9900	* 3.7955
9	* 1.5094	* 1.7769	* 1.8079	* 1.8134	* 1.6999	* 1.8547	* 1.9547	* 0.9297
	* 2.7385	* 2.3675	* 2.2951	* 2.2246	* 2.3425	* 2.1227	* 2.0104	* 3.8297
10	* 1.5552	* 1.8081	* 1.5270	* 1.4847	* 1.7132	* 1.7557	* 1.8873	* 0.8742
	* 2.6735	* 2.2948	* 2.7323	* 2.7760	* 2.3479	* 2.2685	* 2.0965	* 4.0638
11	* 1.6001	* 1.8135	* 1.4858	* 1.6706	* 1.3339	* 1.5528	* 1.6598	* 0.7140
	* 2.5229	* 2.2245	* 2.7740	* 2.4415	* 2.9239	* 2.5687	* 2.4090	* 5.0582
12	* 1.9028	* 1.7000	* 1.7135	* 1.3341	* 1.2990	* 1.4584	* 0.9589	
	* 2.0879	* 2.3424	* 2.3475	* 2.9239	* 2.5210	* 2.3413	* 3.6174	
13	* 1.8735	* 1.8550	* 1.7562	* 1.5532	* 1.4585	* 0.9503	* 0.4711	
	* 2.0986	* 2.1224	* 2.2679	* 2.5680	* 2.3412	* 3.1858	* 6.8339	
14	* 1.9720	* 1.9549	* 1.8878	* 1.6603	* 0.9590	* 0.4710		
	* 1.9900	* 2.0102	* 2.0959	* 2.4083	* 3.6164	* 6.8352		
15	* 0.9390	* 0.9293	* 0.8759	* 0.7148	* F-SUB-Q			
	* 3.7955	* 3.8300	* 4.0587	* 5.0552	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6400	1.5538	1.5734	1.6111	1.9244	1.8895	1.9998	0.9302
	2.7838	3.0260	2.8591	2.6958	2.2119	2.2185	2.0887	4.0586
9	1.5538	1.8198	1.8331	1.8404	1.7109	1.8729	1.9840	0.9210
	3.0260	2.5542	2.4453	2.3575	2.4986	2.2460	2.1119	4.1047
10	1.5734	1.8334	1.5450	1.5001	1.7463	1.7835	1.9257	0.8666
	2.8591	2.4450	2.9210	2.9684	2.4860	2.4075	2.2104	4.3834
11	1.6111	1.8405	1.5013	1.7143	1.3844	1.6023	1.7092	0.7114
	2.6958	2.3574	2.9662	2.6552	3.2089	2.7749	2.5784	5.4858
12	1.9244	1.7109	1.7466	1.3846	1.4748	1.6222	0.9866	
	2.2119	2.4985	2.4855	3.2090	2.7617	2.5492	4.0184	
13	1.8895	1.8732	1.7839	1.6027	1.6223	1.0561	0.4929	
	2.2185	2.2456	2.4069	2.7740	2.5491	3.5531	7.6551	
14	1.9998	1.9842	1.9262	1.7097	0.9867	0.4928		
	2.0887	2.1116	2.2098	2.5776	4.0172	7.6567		
15	0.9302	0.9205	0.8684	0.7122	F-SUB-Q			
	4.0586	4.1057	4.3774	5.4824	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6989	1.5711	1.5715	1.6030	1.9164	1.8805	1.9936	0.9226
	2.7929	3.0368	3.0387	2.8922	2.3911	2.3945	2.2490	4.3767
9	1.5711	1.8301	1.8325	1.8353	1.7020	1.8658	1.9794	0.9149
	3.0368	2.6173	2.6100	2.5345	2.7072	2.4237	2.2735	4.4230
10	1.5715	1.8329	1.5433	1.4984	1.7481	1.7862	1.9315	0.8637
	3.0387	2.6095	3.1118	3.1891	2.6855	2.5961	2.3759	4.7178
11	1.6030	1.8354	1.4996	1.7289	1.4120	1.6217	1.7279	0.7132
	2.8922	2.5344	3.1866	2.7648	3.3622	2.9593	2.7702	5.9070
12	1.9164	1.7021	1.7484	1.4122	1.5835	1.7190	1.0130	
	2.3911	2.7071	2.6850	3.3618	2.9569	2.7261	4.3065	
13	1.8805	1.8662	1.7867	1.6221	1.7192	1.1260	0.5122	
	2.3945	2.4233	2.5954	2.9585	2.7259	3.8259	8.3177	
14	1.9936	1.9796	1.9320	1.7285	1.0131	0.5120		
	2.2490	2.2733	2.3753	2.7694	4.3051	8.3194		
15	0.9226	0.9144	0.8655	0.7140	F-SUB-Q			
	4.3767	4.4241	4.7113	5.9035	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6892	1.5569	1.5489	1.5758	1.8804	1.8484	1.9566	0.9143
	2.8332	3.0725	2.9427	2.8043	2.3385	2.3783	2.2450	4.3680
9	1.5569	1.8063	1.8059	1.7997	1.6729	1.8353	1.9439	0.9077
	3.0725	2.6278	2.5270	2.4641	2.6386	2.4133	2.2735	4.4094
10	1.5489	1.8063	1.5213	1.4784	1.7196	1.7651	1.9061	0.8627
	2.9427	2.5264	3.0161	3.0880	2.6571	2.6045	2.4002	4.7301
11	1.5758	1.7997	1.4796	1.7132	1.4089	1.6094	1.7146	0.7167
	2.8044	2.4640	3.0855	2.7925	3.4036	2.9951	2.8146	5.9924
12	1.8804	1.6730	1.7199	1.4091	1.6069	1.7397	1.0307	
	2.3385	2.6386	2.6566	3.4032	2.9949	2.7632	4.2996	
13	1.8484	1.8357	1.7655	1.6098	1.7398	1.1576	0.5250	
	2.3783	2.4128	2.6039	2.9943	2.7630	3.8374	8.3235	
14	1.9566	1.9441	1.9066	1.7151	1.0308	0.5249		
	2.2451	2.2732	2.3996	2.8137	4.2985	8.3253		
15	0.9143	0.9072	0.8644	0.7175	F-SUB-Q			
	4.3680	4.4100	4.7241	5.9887	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7023	1.5548	1.5451	1.5683	1.8810	1.8456	1.9643	0.8971
	2.6898	2.9341	2.8282	2.6986	2.2390	2.2801	2.1407	4.2607
9	1.5548	1.8124	1.8047	1.8046	1.6658	1.8338	1.9526	0.8919
	2.9341	2.5095	2.4224	2.3542	2.5402	2.3133	2.1675	4.3127
10	1.5451	1.8053	1.5159	1.4723	1.7277	1.7697	1.9196	0.8459
	2.8282	2.4217	2.8999	2.9732	2.5378	2.4956	2.2885	4.6269
11	1.5683	1.8047	1.4736	1.7252	1.4161	1.6272	1.7326	0.7034
	2.6986	2.3541	2.9706	2.6561	3.2448	2.8347	2.6644	5.8709
12	1.8810	1.6659	1.7280	1.4160	1.6311	1.7731	1.0214	
	2.2390	2.5401	2.5373	3.2444	2.8574	2.6178	4.1398	
13	1.8456	1.8342	1.7701	1.6277	1.7732	1.1585	0.5208	
	2.2801	2.3128	2.4950	2.8340	2.6176	3.6888	7.9766	
14	1.9643	1.9528	1.9201	1.7331	1.0215	0.5207		
	2.1407	2.1673	2.2879	2.6636	4.1386	7.9783		
15	0.8971	0.8914	0.8477	0.7042	F-SUB-Q			
	4.2607	4.3136	4.6206	5.8671	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6848	1.5332	1.5232	1.5449	1.8573	1.8220	1.9444	0.8799
	2.4637	2.6969	2.6353	2.5242	2.0996	2.1471	2.0088	3.9974
9	1.5332	1.7914	1.7813	1.7831	1.6412	1.8112	1.9335	0.8756
	2.6969	2.3127	2.2581	2.1963	2.3853	2.1755	2.0321	4.0422
10	1.5232	1.7819	1.4937	1.4512	1.7092	1.7520	1.9050	0.8310
	2.6353	2.2575	2.6992	2.7667	2.3658	2.3338	2.1363	4.3230
11	1.5449	1.7832	1.4527	1.7095	1.4035	1.6182	1.7231	0.6921
	2.5242	2.1962	2.7642	2.4354	2.9791	2.5942	2.4382	5.4498
12	1.8573	1.6413	1.7096	1.4035	1.6258	1.7699	1.0099	
	2.0996	2.3853	2.3653	2.9788	2.6199	2.3954	3.8196	
13	1.8220	1.8116	1.7524	1.6186	1.7700	1.1494	0.5145	
	2.1471	2.1751	2.3332	2.5935	2.3953	3.4022	7.3948	
14	1.9444	1.9337	1.9055	1.7235	1.0100	0.5144		
	2.0088	2.0319	2.1358	2.4375	3.8185	7.3965		
15	0.8799	0.8750	0.8328	0.6929	F-SUB-Q			
	3.9974	4.0435	4.3170	5.4464	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6521	1.5013	1.4918	1.5124	1.8208	1.7865	1.9084	0.8628
	2.2770	2.4903	2.3987	2.3025	1.9146	1.9595	1.8318	3.6557
9	1.5013	1.7567	1.7461	1.7475	1.6070	1.7762	1.8981	0.8591
	2.4903	2.1119	2.0531	2.0016	2.1771	1.9846	1.8525	3.6927
10	1.4918	1.7468	1.4624	1.4216	1.6767	1.7208	1.8734	0.8174
	2.3987	2.0525	2.4569	2.5190	2.1553	2.1245	1.9424	3.9383
11	1.5124	1.7476	1.4229	1.6800	1.3790	1.5927	1.6963	0.6812
	2.3025	2.0015	2.5166	2.2401	2.7644	2.4000	2.2526	4.9554
12	1.8208	1.6070	1.6770	1.3790	1.6035	1.7458	0.9972	
	1.9146	2.1771	2.1549	2.7641	2.4354	2.2246	3.5440	
13	1.7865	1.7766	1.7212	1.5931	1.7459	1.1346	0.5075	
	1.9595	1.9842	2.1240	2.3994	2.2244	3.1585	6.8835	
14	1.9084	1.8984	1.8739	1.6968	0.9973	0.5074		
	1.8318	1.8523	1.9419	2.2519	3.5430	6.8851		
15	0.8628	0.8586	0.8191	0.6820	F-SUB-Q			
	3.6557	3.6935	3.9329	4.9522	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6013	* 1.4584	* 1.4495	* 1.4696	* 1.7673	* 1.7365	* 1.8523	* 0.8459
	* 2.2903	* 2.4995	* 2.3968	* 2.3058	* 1.9218	* 1.9652	* 1.8403	* 3.6438
9	* 1.4584	* 1.7049	* 1.6965	* 1.6937	* 1.5611	* 1.7267	* 1.8426	* 0.8426
	* 2.4995	* 2.1092	* 2.0512	* 2.0098	* 2.1811	* 1.9894	* 1.8602	* 3.6704
10	* 1.4495	* 1.6972	* 1.4206	* 1.3827	* 1.6258	* 1.6745	* 1.8218	* 0.8053
	* 2.3968	* 2.0504	* 2.4547	* 2.5154	* 2.1625	* 2.1239	* 1.9433	* 3.8998
11	* 1.4696	* 1.6938	* 1.3840	* 1.6330	* 1.3428	* 1.5490	* 1.6507	* 0.6727
	* 2.3059	* 2.0096	* 2.5130	* 2.2412	* 2.7761	* 2.4101	* 2.2523	* 4.8832
12	* 1.7673	* 1.5611	* 1.6261	* 1.3427	* 1.5642	* 1.7005	* 0.9853	
	* 1.9218	* 2.1811	* 2.1621	* 2.7758	* 2.4516	* 2.2412	* 3.5146	
13	* 1.7365	* 1.7270	* 1.6749	* 1.5494	* 1.7006	* 1.1177	* 0.5008	
	* 1.9652	* 1.9890	* 2.1234	* 2.4095	* 2.2410	* 3.1539	* 6.8710	
14	* 1.8523	* 1.8429	* 1.8222	* 1.6511	* 0.9854	* 0.5007		
	* 1.8403	* 1.8600	* 1.9428	* 2.2516	* 3.5137	* 6.8726		
15	* 0.8459	* 0.8420	* 0.8069	* 0.6734	* F-SUB-Q			
	* 3.6438	* 3.6712	* 3.8948	* 4.8802	* M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5894	* 1.4365	* 1.4280	* 1.4479	* 1.7513	* 1.7163	* 1.8416	* 0.8203
	* 2.0844	* 2.2791	* 2.2047	* 2.1276	* 1.7656	* 1.8113	* 1.6868	* 3.4313
9	* 1.4365	* 1.6890	* 1.6765	* 1.6822	* 1.5389	* 1.7070	* 1.8323	* 0.8177
	* 2.2791	* 1.9242	* 1.8812	* 1.8397	* 2.0147	* 1.8320	* 1.7039	* 3.4586
10	* 1.4280	* 1.6772	* 1.3992	* 1.3608	* 1.6150	* 1.6569	* 1.8116	* 0.7783
	* 2.2047	* 1.8805	* 2.2572	* 2.3169	* 1.9766	* 1.9487	* 1.7744	* 3.6755
11	* 1.4479	* 1.6823	* 1.3622	* 1.6196	* 1.3246	* 1.5413	* 1.6418	* 0.6486
	* 2.1276	* 1.8396	* 2.3145	* 2.0398	* 2.5478	* 2.1840	* 2.0474	* 4.5939
12	* 1.7513	* 1.5389	* 1.6153	* 1.3245	* 1.5512	* 1.6922	* 0.9530	
	* 1.7656	* 2.0146	* 1.9762	* 2.5475	* 2.2409	* 2.0466	* 3.3101	
13	* 1.7163	* 1.7074	* 1.6574	* 1.5418	* 1.6923	* 1.0875	* 0.4832	
	* 1.8113	* 1.8316	* 1.9482	* 2.1834	* 2.0465	* 2.9426	* 6.4852	
14	* 1.8416	* 1.8325	* 1.8121	* 1.6423	* 0.9530	* 0.4831		
	* 1.6868	* 1.7037	* 1.7740	* 2.0468	* 3.3092	* 6.4868		
15	* 0.8203	* 0.8171	* 0.7800	* 0.6494	* F-SUB-Q			
	* 3.4313	* 3.4599	* 3.6701	* 4.5909	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5494	1.3991	1.3914	1.4105	1.7077	1.6742	1.7973	0.7972
	1.9408	2.1401	2.0703	2.0068	1.6659	1.7099	1.5919	3.2594
9	1.3991	1.6464	1.6353	1.6406	1.4997	1.6652	1.7885	0.7950
	2.1401	1.7973	1.7648	1.7329	1.9007	1.7277	1.6069	3.2811
10	1.3914	1.6360	1.3634	1.3260	1.5759	1.6171	1.7689	0.7571
	2.0703	1.7640	2.1182	2.1762	1.8563	1.8293	1.6659	3.4769
11	1.4105	1.6407	1.3275	1.5809	1.2921	1.5048	1.6026	0.6306
	2.0068	1.7328	2.1739	1.9044	2.3782	2.0395	1.9082	4.3241
12	1.7077	1.4997	1.5762	1.2920	1.5162	1.6535	0.9277	
	1.6659	1.9007	1.8560	2.3780	2.0770	1.8976	3.0848	
13	1.6742	1.6656	1.6175	1.5052	1.6536	1.0601	0.4700	
	1.7099	1.7273	1.8289	2.0389	1.8975	2.7425	6.0607	
14	1.7973	1.7887	1.7693	1.6031	0.9278	0.4699		
	1.5919	1.6067	1.6654	1.9077	3.0840	6.0622		
15	0.7972	0.7944	0.7587	0.6313	F-SUB-Q			
	3.2594	3.2824	3.4719	4.3212	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4773	1.3445	1.3376	1.3555	1.6319	1.6068	1.7135	0.7765
	1.8920	2.0325	1.9918	1.9411	1.6227	1.6591	1.5556	3.1256
9	1.3445	1.5722	1.5696	1.5644	1.4418	1.5983	1.7052	0.7741
	2.0325	1.7284	1.7007	1.6890	1.8379	1.6747	1.5690	3.1430
10	1.3376	1.5703	1.3113	1.2768	1.5050	1.5525	1.6878	0.7417
	1.9918	1.6999	2.0360	2.0913	1.8002	1.7635	1.6173	3.3030
11	1.3555	1.5645	1.2781	1.5136	1.2447	1.4350	1.5283	0.6187
	1.9411	1.6888	2.0892	1.8336	2.2826	1.9614	1.8381	4.0750
12	1.6319	1.4418	1.5053	1.2446	1.4566	1.5800	0.9094	
	1.6227	1.8379	1.7998	2.2823	1.9900	1.8317	2.9184	
13	1.6068	1.5987	1.5529	1.4354	1.5801	1.0352	0.4618	
	1.6591	1.6743	1.7631	1.9608	1.8316	2.5860	5.6983	
14	1.7135	1.7054	1.6883	1.5288	0.9094	0.4616		
	1.5556	1.5688	1.6169	1.8375	2.9177	5.6997		
15	0.7765	0.7736	0.7432	0.6194	F-SUB-Q			
	3.1256	3.1437	3.2987	4.0724	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4394	1.3085	1.3003	1.3200	1.5832	1.5628	1.6630	0.7459
	1.7763	1.9396	1.9184	1.8751	1.5757	1.6076	1.5112	3.0753
9	1.3085	1.5226	1.5265	1.5237	1.4051	1.5552	1.6551	0.7436
	1.9396	1.6589	1.6377	1.6310	1.7756	1.6205	1.5230	3.0905
10	1.3003	1.5273	1.2756	1.2432	1.4692	1.5129	1.6375	0.7095
	1.9184	1.6369	1.9591	2.0131	1.7282	1.6945	1.5631	3.2521
11	1.3200	1.5238	1.2446	1.4742	1.2167	1.3958	1.4834	0.5896
	1.8751	1.6308	2.0111	1.7490	2.1538	1.8795	1.7638	4.0018
12	1.5832	1.4051	1.4695	1.2167	1.4195	1.5363	0.8692	
	1.5757	1.7756	1.7279	2.1535	1.9051	1.7574	2.8249	
13	1.5628	1.5555	1.5133	1.3962	1.5364	0.9930	0.4412	
	1.6076	1.6201	1.6942	1.8789	1.7573	2.5328	5.5896	
14	1.6630	1.6553	1.6379	1.4839	0.8693	0.4411		
	1.5112	1.5228	1.5627	1.7632	2.8242	5.5910		
15	0.7459	0.7430	0.7110	0.5903	F-SUB-Q			
	3.0753	3.0917	3.2475	3.9991	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3620	1.2403	1.2136	1.2521	1.4861	1.4603	1.5449	0.7132
	1.6790	1.9368	1.9533	1.8836	1.5924	1.6419	1.5526	3.0779
9	1.2403	1.4286	1.4251	1.4336	1.3256	1.4526	1.5371	0.7110
	1.9368	1.6615	1.6661	1.6287	1.7894	1.6545	1.5645	3.0912
10	1.2136	1.4258	1.1889	1.1842	1.3799	1.4194	1.5242	0.6762
	1.9533	1.6653	1.9969	2.0164	1.6992	1.7155	1.5969	3.2576
11	1.2521	1.4337	1.1850	1.4000	1.1600	1.3188	1.3927	0.5586
	1.8836	1.6285	2.0151	1.7142	2.1217	1.7970	1.7747	4.0136
12	1.4861	1.3256	1.3801	1.1601	1.3323	1.4352	0.8331	
	1.5924	1.7895	1.6988	2.1215	1.8928	1.7590	2.7769	
13	1.4603	1.4529	1.4197	1.3191	1.4352	0.9322	0.4153	
	1.6419	1.6541	1.7151	1.7967	1.7589	2.5181	5.5719	
14	1.5449	1.5373	1.5246	1.3931	0.8331	0.4151		
	1.5526	1.5643	1.5965	1.7742	2.7763	5.5733		
15	0.7132	0.7105	0.6775	0.5593	F-SUB-Q			
	3.0779	3.0923	3.2535	4.0110	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3667	1.0624	0.9906	1.0641	1.4367	1.2004	1.4024	0.6163
	1.6790	2.1566	2.3035	2.1381	1.5924	1.9275	1.6504	3.4489
9	1.0624	1.3767	1.1864	1.4014	1.1341	1.1933	1.3946	0.6185
	2.1566	1.6615	1.9262	1.6287	2.0150	1.9436	1.6635	3.4391
10	0.9906	1.1871	0.9668	1.0192	1.3660	1.1732	1.3590	0.5847
	2.3035	1.9252	2.3656	2.2524	1.6992	1.9977	1.7247	3.6418
11	1.0641	1.4016	1.0198	1.3668	1.0071	1.3213	1.2382	0.4788
	2.1381	1.6285	2.2510	1.7142	2.3395	1.7970	1.9226	4.5165
12	1.4367	1.1341	1.3663	1.0072	1.1089	1.2679	0.7372	
	1.5924	2.0151	1.6988	2.3392	2.1786	1.9071	3.0166	
13	1.2004	1.1936	1.1735	1.3216	1.2679	0.7839	0.3481	
	1.9275	1.9432	1.9973	1.7967	1.9070	2.8693	6.3856	
14	1.4024	1.3947	1.3593	1.2384	0.7373	0.3480		
	1.6504	1.6633	1.7243	1.9221	3.0160	6.3871		
15	0.6163	0.6182	0.5854	0.4793	F-SUB-Q			
	3.4489	3.4399	3.6403	4.5139	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.5328	0.4536	0.4240	0.4622	0.5503	0.4658	0.4977	0.2563
	4.1471	4.8780	5.2098	4.7771	4.0174	4.7774	4.5006	8.0535
9	0.4536	0.5265	0.4631	0.5340	0.4780	0.4599	0.4946	0.2563
	4.8780	4.1935	4.7716	4.1371	4.6360	4.8773	4.5386	8.0582
10	0.4240	0.4633	0.4135	0.4471	0.5274	0.4543	0.4791	0.2448
	5.2098	4.7694	5.3569	4.9814	4.2563	4.9681	4.7303	8.4386
11	0.4622	0.5341	0.4472	0.5090	0.4407	0.5031	0.4401	0.2048
	4.7770	4.1364	4.9795	4.4399	5.1623	4.5531	5.2227	10.2358
12	0.5503	0.4780	0.5275	0.4408	0.4264	0.4513	0.3042	
	4.0174	4.6360	4.2554	5.1617	5.4716	5.1749	7.0570	
13	0.4658	0.4600	0.4544	0.5032	0.4513	0.3144	0.1519	
	4.7774	4.8764	4.9673	4.5524	5.1745	6.9136	14.1856	
14	0.4977	0.4946	0.4792	0.4401	0.3042	0.1519		
	4.5006	4.5381	4.7293	5.2215	7.0552	14.1879		
15	0.2563	0.2562	0.2450	0.2050	F-SUB-Q			
	8.0534	8.0577	8.4389	10.2323	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.3484	* 0.3998	* 0.4301	* 0.4859	* 0.5768	* 0.4979	* 0.5180	* 0.2796
	* 4.6992	* 5.5094	* 5.8675	* 5.1748	* 4.3649	* 5.0872	* 4.9355	* 8.3439
9	* 0.3998	* 0.4900	* 0.4658	* 0.5522	* 0.5055	* 0.4873	* 0.5112	* 0.2780
	* 5.5094	* 4.8564	* 5.4394	* 4.5553	* 4.9735	* 5.1894	* 4.9963	* 8.3745
10	* 0.4301	* 0.4659	* 0.4192	* 0.4565	* 0.5283	* 0.4610	* 0.4757	* 0.2570
	* 5.8676	* 5.4383	* 6.0607	* 5.5114	* 4.7401	* 5.4266	* 5.2624	* 8.8752
11	* 0.4859	* 0.5523	* 0.4566	* 0.4764	* 0.4132	* 0.4535	* 0.4183	* 0.2085
	* 5.1748	* 4.5549	* 5.5102	* 4.8808	* 5.5587	* 4.9576	* 5.7157	* 10.7980
12	* 0.5768	* 0.5056	* 0.5284	* 0.4132	* 0.3126	* 0.3394	* 0.2595	*
	* 4.3649	* 4.9732	* 4.7394	* 5.5583	* 5.6132	* 5.4148	* 7.3577	*
13	* 0.4979	* 0.4873	* 0.4611	* 0.4536	* 0.3395	* 0.2064	* 0.1232	*
	* 5.0872	* 5.1890	* 5.4257	* 4.9570	* 5.4146	* 6.9190	* 13.4227	*
14	* 0.5180	* 0.5112	* 0.4758	* 0.4184	* 0.2595	* 0.1231	*	*
	* 4.9355	* 4.9958	* 5.2611	* 5.7145	* 7.3556	* 13.4246	*	*
15	* 0.2796	* 0.2780	* 0.2573	* 0.2086	* F-SUB-Q			
	* 8.3439	* 8.3729	* 8.8698	* 10.7947	* M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.8631	* 0.9224	* 0.9789	* 1.0967	* 1.4264	* 1.2246	* 1.3735	* 0.6789
	* 1.9806	* 2.4718	* 2.6629	* 2.3715	* 1.8285	* 2.1381	* 1.9239	* 3.5568
9	* 0.9224	* 1.2375	* 1.1492	* 1.3745	* 1.1668	* 1.2107	* 1.3565	* 0.6730
	* 2.4718	* 2.0095	* 2.2746	* 1.8936	* 2.2300	* 2.1650	* 1.9362	* 3.5586
10	* 0.9789	* 1.1493	* 0.9570	* 1.0244	* 1.3113	* 1.1397	* 1.2722	* 0.6209
	* 2.6629	* 2.2744	* 2.7372	* 2.5355	* 1.9748	* 2.2756	* 2.0362	* 3.7905
11	* 1.0967	* 1.3746	* 1.0247	* 1.2249	* 0.9183	* 1.1380	* 1.1000	* 0.4958
	* 2.3715	* 1.8935	* 2.5348	* 1.9692	* 2.5388	* 2.0381	* 2.2132	* 4.6789
12	* 1.4264	* 1.1669	* 1.3115	* 0.9185	* 0.7609	* 0.8917	* 0.6362	*
	* 1.8285	* 2.2299	* 1.9745	* 2.5386	* 2.3150	* 2.0986	* 3.0997	*
13	* 1.2246	* 1.2108	* 1.1400	* 1.1382	* 0.8918	* 0.5155	* 0.2896	*
	* 2.1381	* 2.1648	* 2.2751	* 2.0379	* 2.0985	* 2.8504	* 5.9006	*
14	* 1.3735	* 1.3566	* 1.2725	* 1.1003	* 0.6363	* 0.2895	*	*
	* 1.9239	* 1.9360	* 2.0357	* 2.2128	* 3.0988	* 5.9016	*	*
15	* 0.6789	* 0.6729	* 0.6216	* 0.4962	* F-SUB-Q			
	* 3.5568	* 3.5582	* 3.7885	* 4.6772	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.9906	* 1.1330	* 1.2107	* 1.3262	* 1.5712	* 1.5060	* 1.5612	* 0.8220
	* 1.9457	* 2.1268	* 2.2114	* 2.0152	* 1.7028	* 1.7814	* 1.7189	* 2.9780
9	* 1.1330	* 1.3661	* 1.3986	* 1.4937	* 1.4043	* 1.4896	* 1.5374	* 0.8117
	* 2.1268	* 1.8962	* 1.9172	* 1.7895	* 1.9034	* 1.7971	* 1.7421	* 3.0065
10	* 1.2107	* 1.3986	* 1.1893	* 1.2282	* 1.3936	* 1.4031	* 1.4840	* 0.7534
	* 2.2114	* 1.9172	* 2.2550	* 2.1697	* 1.9122	* 1.8968	* 1.7909	* 3.1999
11	* 1.3262	* 1.4938	* 1.2286	* 1.3347	* 1.0907	* 1.2305	* 1.2916	* 0.6055
	* 2.0152	* 1.7893	* 2.1691	* 1.8581	* 2.1846	* 1.9961	* 1.9515	* 3.9383
12	* 1.5712	* 1.4043	* 1.3938	* 1.0908	* 0.9280	* 1.0297	* 0.7625	
	* 1.7028	* 1.9033	* 1.9119	* 2.1845	* 1.9490	* 1.8441	* 2.6602	
13	* 1.5060	* 1.4898	* 1.4034	* 1.2308	* 1.0298	* 0.6347	* 0.3600	
	* 1.7814	* 1.7969	* 1.8963	* 1.9958	* 1.8441	* 2.4012	* 4.8985	
14	* 1.5612	* 1.5376	* 1.4844	* 1.2920	* 0.7626	* 0.3600		
	* 1.7189	* 1.7419	* 1.7904	* 1.9510	* 2.6594	* 4.8994		
15	* 0.8220	* 0.8115	* 0.7545	* 0.6061	* F-SUB-Q			
	* 2.9780	* 3.0061	* 3.1974	* 3.9366	* M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1407	* 1.2538	* 1.3398	* 1.4580	* 1.7672	* 1.6791	* 1.7683	* 0.8842
	* 1.8206	* 2.0168	* 2.0653	* 1.8934	* 1.5619	* 1.6437	* 1.5603	* 2.8453
9	* 1.2538	* 1.5426	* 1.5575	* 1.6739	* 1.5476	* 1.6608	* 1.7409	* 0.8709
	* 2.0168	* 1.7510	* 1.7784	* 1.6497	* 1.7824	* 1.6596	* 1.5832	* 2.8822
10	* 1.3398	* 1.5575	* 1.3169	* 1.3435	* 1.5605	* 1.5641	* 1.6841	* 0.8088
	* 2.0653	* 1.7784	* 2.1016	* 2.0498	* 1.7645	* 1.7556	* 1.6274	* 3.0744
11	* 1.4580	* 1.6740	* 1.3439	* 1.4938	* 1.1908	* 1.3853	* 1.4594	* 0.6522
	* 1.8934	* 1.6496	* 2.0491	* 1.7222	* 2.0662	* 1.8543	* 1.7916	* 3.7912
12	* 1.7672	* 1.5477	* 1.5608	* 1.1909	* 1.0327	* 1.1677	* 0.8234	
	* 1.5619	* 1.7823	* 1.7642	* 2.0661	* 1.8172	* 1.6906	* 2.5626	
13	* 1.6791	* 1.6609	* 1.5645	* 1.3857	* 1.1678	* 0.7031	* 0.3887	
	* 1.6437	* 1.6594	* 1.7551	* 1.8541	* 1.6905	* 2.2814	* 4.7342	
14	* 1.7683	* 1.7410	* 1.6845	* 1.4599	* 0.8235	* 0.3887		
	* 1.5603	* 1.5830	* 1.6270	* 1.7911	* 2.5618	* 4.7351		
15	* 0.8842	* 0.8706	* 0.8103	* 0.6528	* F-SUB-Q			
	* 2.8453	* 2.8821	* 3.0707	* 3.7893	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 20 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2211	1.3107	1.3961	1.5218	1.8693	1.7607	1.8746	0.9229
	1.8099	2.0309	2.0710	1.8937	1.5389	1.6305	1.5304	2.8360
9	1.3107	1.6338	1.6308	1.7701	1.6148	1.7410	1.8453	0.9111
	2.0309	1.7384	1.7736	1.6282	1.7810	1.6473	1.5537	2.8669
10	1.3961	1.6307	1.3703	1.4020	1.6449	1.6419	1.7912	0.8467
	2.0710	1.7736	2.1100	2.0520	1.7469	1.7429	1.5938	3.0606
11	1.5218	1.7702	1.4025	1.5787	1.2455	1.4746	1.5559	0.6841
	1.8937	1.6281	2.0512	1.7086	2.0775	1.8299	1.7597	3.7828
12	1.8693	1.6149	1.6452	1.2456	1.0908	1.2524	0.8712	
	1.5389	1.7809	1.7466	2.0775	1.8156	1.6686	2.5503	
13	1.7607	1.7412	1.6423	1.4750	1.2526	0.7486	0.4078	
	1.6305	1.6471	1.7424	1.8296	1.6685	2.2807	4.7729	
14	1.8746	1.8454	1.7917	1.5564	0.8714	0.4077		
	1.5304	1.5535	1.5934	1.7592	2.5496	4.7738		
15	0.9229	0.9108	0.8483	0.6848	F-SUB-Q			
	2.8360	2.8669	3.0568	3.7808	M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 19 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2614	1.3425	1.4246	1.5560	1.9225	1.8045	1.9319	0.9488
	1.8624	2.1015	2.1407	1.9574	1.5784	1.6750	1.5631	2.9053
9	1.3425	1.6804	1.6685	1.8212	1.6509	1.7846	1.9020	0.9386
	2.1015	1.7740	1.8268	1.6725	1.8387	1.6928	1.5872	2.9316
10	1.4246	1.6685	1.3970	1.4353	1.6907	1.6870	1.8531	0.8743
	2.1407	1.8268	2.1785	2.1126	1.7908	1.7835	1.6214	3.1259
11	1.5560	1.8213	1.4358	1.6264	1.2800	1.5296	1.6154	0.7086
	1.9575	1.6724	2.1118	1.7540	2.1497	1.8654	1.7862	3.8285
12	1.9225	1.6510	1.6910	1.2801	1.1268	1.3066	0.9079	
	1.5784	1.8385	1.7905	2.1497	1.8763	1.7133	2.6091	
13	1.8045	1.7849	1.6874	1.5300	1.3068	0.7813	0.4232	
	1.6750	1.6926	1.7829	1.8651	1.7132	2.3499	4.9346	
14	1.9319	1.9022	1.8536	1.6160	0.9081	0.4231		
	1.5631	1.5871	1.6209	1.7858	2.6083	4.9355		
15	0.9488	0.9382	0.8760	0.7093	F-SUB-Q			
	2.9053	2.9316	3.1221	3.8265	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3023	1.3693	1.4522	1.5882	1.9758	1.8478	1.9910	0.9630
	1.9187	2.1755	2.2353	2.0494	1.6391	1.7432	1.6163	3.0487
9	1.3693	1.7283	1.7064	1.8726	1.6849	1.8284	1.9608	0.9524
	2.1755	1.8253	1.9006	1.7336	1.9230	1.7615	1.6412	3.0774
10	1.4522	1.7064	1.4238	1.4666	1.7406	1.7343	1.9174	0.8885
	2.2353	1.9005	2.2729	2.1985	1.8471	1.8386	1.6612	3.2756
11	1.5882	1.8727	1.4672	1.6774	1.3145	1.5887	1.6782	0.7213
	2.0494	1.7335	2.1976	1.8093	2.2249	1.9096	1.8181	3.9768
12	1.9758	1.6850	1.7409	1.3147	1.1604	1.3658	0.9332	
	1.6391	1.9229	1.8468	2.2246	1.9481	1.7680	2.7281	
13	1.8478	1.8286	1.7348	1.5892	1.3659	0.8070	0.4339	
	1.7432	1.7613	1.8381	1.9092	1.7679	2.4678	5.2138	
14	1.9910	1.9610	1.9179	1.6787	0.9334	0.4338		
	1.6163	1.6410	1.6608	1.8176	2.7273	5.2147		
15	0.9630	0.9521	0.8902	0.7221	F-SUB-Q			
	3.0487	3.0775	3.2715	3.9747	M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3362	1.3913	1.4689	1.6064	2.0048	1.8723	2.0249	0.9725
	2.0318	2.3149	2.3750	2.1867	1.7387	1.8463	1.7045	3.2348
9	1.3913	1.7594	1.7296	1.9021	1.7041	1.8539	1.9953	0.9625
	2.3149	1.9377	2.0172	1.8410	2.0481	1.8658	1.7311	3.2644
10	1.4689	1.7297	1.4404	1.4870	1.7715	1.7664	1.9594	0.9003
	2.3750	2.0171	2.4134	2.3292	1.9467	1.9357	1.7452	3.4722
11	1.6064	1.9022	1.4877	1.7135	1.3426	1.6322	1.7254	0.7337
	2.1867	1.8408	2.3282	1.9040	2.3482	2.0023	1.9036	4.1817
12	2.0048	1.7041	1.7718	1.3428	1.1941	1.4191	0.9603	
	1.7387	2.0480	1.9463	2.3479	2.0576	1.8590	2.8682	
13	1.8723	1.8542	1.7669	1.6327	1.4193	0.8382	0.4477	
	1.8463	1.8655	1.9352	2.0019	1.8589	2.6215	5.5491	
14	2.0249	1.9955	1.9600	1.7260	0.9605	0.4476		
	1.7045	1.7309	1.7447	1.9031	2.8673	5.5500		
15	0.9725	0.9621	0.9020	0.7344	F-SUB-Q			
	3.2348	3.2646	3.4678	4.1795	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3882	1.4224	1.4878	1.6236	2.0337	1.8946	2.0572	0.9777
	2.2074	2.5177	2.5635	2.3307	1.8407	1.9547	1.7973	3.4345
9	1.4224	1.7981	1.7554	1.9323	1.7228	1.8778	2.0287	0.9667
	2.5177	2.0718	2.1726	1.9633	2.1769	1.9751	1.8251	3.4700
10	1.4878	1.7557	1.4598	1.5084	1.8054	1.7989	2.0019	0.9078
	2.5635	2.1724	2.6039	2.5057	2.0754	2.0678	1.8591	3.6936
11	1.6236	1.9325	1.5091	1.7581	1.3787	1.6810	1.7769	0.7434
	2.3307	1.9632	2.5045	2.0459	2.5313	2.1323	2.0198	4.4840
12	2.0338	1.7228	1.8057	1.3789	1.2441	1.4950	0.9896	
	1.8407	2.1768	2.0750	2.5310	2.2164	1.9895	3.0973	
13	1.8946	1.8781	1.7994	1.6815	1.4952	0.8858	0.4662	
	1.9547	1.9748	2.0672	2.1318	1.9894	2.8326	5.9985	
14	2.0572	2.0290	2.0024	1.7774	0.9897	0.4661		
	1.7973	1.8248	1.8586	2.0193	3.0964	5.9996		
15	0.9777	0.9663	0.9096	0.7442	F-SUB-Q			
	3.4345	3.4704	3.6889	4.4815	M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4799	1.4467	1.4866	1.6153	2.0162	1.8823	2.0401	0.9827
	2.4548	2.7865	2.8260	2.5323	2.0040	2.1252	1.9590	3.6865
9	1.4467	1.8044	1.7526	1.9194	1.7147	1.8675	2.0141	0.9760
	2.7865	2.3090	2.3983	2.1418	2.3622	2.1450	1.9864	3.7066
10	1.4866	1.7529	1.4588	1.5095	1.7986	1.8007	1.9991	0.9213
	2.8260	2.3980	2.8993	2.7504	2.2756	2.2501	2.0141	3.9176
11	1.6153	1.9196	1.5102	1.7719	1.4087	1.6963	1.7923	0.7608
	2.5323	2.1416	2.7490	2.2615	2.7845	2.3460	2.2202	4.8205
12	2.0162	1.7147	1.7989	1.4090	1.3496	1.5761	1.0370	
	2.0040	2.3621	2.2752	2.7841	2.4717	2.2176	3.3572	
13	1.8823	1.8678	1.8012	1.6967	1.5762	0.9801	0.4968	
	2.1252	2.1446	2.2495	2.3454	2.2174	3.1111	6.5472	
14	2.0401	2.0143	1.9996	1.7929	1.0371	0.4967		
	1.9590	1.9862	2.0136	2.2196	3.3562	6.5484		
15	0.9827	0.9756	0.9231	0.7615	F-SUB-Q			
	3.6865	3.7069	3.9130	4.8178	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6568	1.4993	1.5089	1.6316	2.0486	1.9042	2.0767	0.9778
	2.6910	3.0724	3.0234	2.7047	2.1182	2.2427	2.0509	3.9302
9	1.4993	1.8594	1.7831	1.9545	1.7324	1.8916	2.0529	0.9693
	3.0724	2.5500	2.5532	2.2694	2.5161	2.2655	2.0820	3.9651
10	1.5089	1.7835	1.4812	1.5317	1.8418	1.8366	2.0485	0.9173
	3.0234	2.5527	3.0946	2.9385	2.4059	2.3834	2.1180	4.2133
11	1.6316	1.9547	1.5325	1.8351	1.4642	1.7597	1.8568	0.7608
	2.7047	2.2692	2.9371	2.4770	3.0673	2.5575	2.4169	5.2104
12	2.0486	1.7324	1.8422	1.4645	1.5168	1.7428	1.0695	
	2.1182	2.5160	2.4054	3.0669	2.6983	2.4059	3.7357	
13	1.9042	1.8919	1.8371	1.7602	1.7429	1.0897	0.5202	
	2.2427	2.2651	2.3827	2.5569	2.4057	3.4575	7.3055	
14	2.0767	2.0531	2.0491	1.8573	1.0696	0.5200		
	2.0509	2.0818	2.1175	2.4163	3.7346	7.3069		
15	0.9778	0.9687	0.9192	0.7616	F-SUB-Q			
	3.9302	3.9656	4.2078	5.2073	M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7440	1.5333	1.5108	1.6269	2.0447	1.8987	2.0751	0.9725
	2.7222	3.1070	3.1638	2.8476	2.2557	2.4152	2.2029	4.2263
9	1.5333	1.8770	1.7866	1.9545	1.7277	1.8882	2.0544	0.9656
	3.1070	2.5658	2.6813	2.3947	2.6806	2.4394	2.2358	4.2591
10	1.5108	1.7871	1.4834	1.5345	1.8513	1.8447	2.0598	0.9168
	3.1638	2.6806	3.2484	3.1140	2.5819	2.5631	2.2711	4.5222
11	1.6269	1.9547	1.5354	1.8705	1.4943	1.7889	1.8854	0.7648
	2.8476	2.3945	3.1124	2.5627	3.2002	2.6946	2.5615	5.6003
12	2.0447	1.7277	1.8517	1.4945	1.6399	1.8437	1.1001	
	2.2557	2.6805	2.5814	3.1998	2.8727	2.5616	3.9838	
13	1.8987	1.8885	1.8451	1.7894	1.8438	1.1659	0.5412	
	2.4152	2.4389	2.5624	2.6939	2.5614	3.7065	7.9034	
14	2.0751	2.0547	2.0604	1.8859	1.1003	0.5411		
	2.2029	2.2356	2.2705	2.5608	3.9826	7.9049		
15	0.9725	0.9650	0.9186	0.7656	F-SUB-Q			
	4.2263	4.2597	4.5163	5.5971	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7470	1.5315	1.4910	1.6008	2.0068	1.8679	2.0386	0.9652
	2.7622	3.1454	3.0765	2.7735	2.2015	2.3576	2.1604	4.1420
9	1.5315	1.8547	1.7626	1.9207	1.7009	1.8589	2.0209	0.9608
	3.1454	2.6025	2.6107	2.3380	2.6108	2.3868	2.1973	4.1666
10	1.4910	1.7631	1.4642	1.5162	1.8288	1.8247	2.0345	0.9172
	3.0765	2.6099	3.1633	3.0318	2.5220	2.5297	2.2563	4.4494
11	1.6008	1.9209	1.5171	1.8605	1.4931	1.7795	1.8757	0.7700
	2.7735	2.3378	3.0301	2.5967	3.2345	2.7248	2.5884	5.5670
12	2.0068	1.7009	1.8292	1.4934	1.6654	1.8653	1.1204	
	2.2015	2.6107	2.5215	3.2340	2.9064	2.5933	3.9712	
13	1.8679	1.8593	1.8252	1.7799	1.8654	1.2002	0.5552	
	2.3576	2.3864	2.5290	2.7241	2.5931	3.7108	7.8948	
14	2.0386	2.0212	2.0350	1.8763	1.1205	0.5550		
	2.1604	2.1970	2.2556	2.5877	3.9701	7.8963		
15	0.9652	0.9603	0.9189	0.7708	F-SUB-Q			
	4.1420	4.1671	4.4440	5.5638	M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7600	1.5319	1.4834	1.5912	2.0066	1.8619	2.0447	0.9466
	2.6236	2.9932	2.9792	2.6854	2.1186	2.2748	2.0714	4.0537
9	1.5319	1.8605	1.7589	1.9218	1.6908	1.8544	2.0290	0.9423
	2.9932	2.4635	2.5185	2.2495	2.5282	2.3026	2.1067	4.0895
10	1.4834	1.7594	1.4570	1.5094	1.8361	1.8272	2.0489	0.8989
	2.9792	2.5177	3.0594	2.9357	2.4240	2.4371	2.1615	4.3681
11	1.5912	1.9220	1.5103	1.8747	1.4975	1.7980	1.8972	0.7550
	2.6854	2.2492	2.9340	2.4607	3.0806	2.5774	2.4459	5.4778
12	2.0066	1.6907	1.8365	1.4977	1.6884	1.8993	1.1097	
	2.1186	2.5282	2.4235	3.0801	2.7760	2.4584	3.8291	
13	1.8619	1.8548	1.8277	1.7985	1.8995	1.1997	0.5500	
	2.2748	2.3021	2.4364	2.5768	2.4582	3.5731	7.5861	
14	2.0447	2.0294	2.0495	1.8977	1.1098	0.5499		
	2.0714	2.1065	2.1609	2.4452	3.8280	7.5877		
15	0.9466	0.9417	0.9007	0.7558	F-SUB-Q			
	4.0537	4.0902	4.3623	5.4744	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7371	1.5081	1.4572	1.5629	1.9757	1.8326	2.0187	0.9263
	2.4327	2.7823	2.7607	2.5008	1.9769	2.1300	1.9331	3.7925
9	1.5081	1.8336	1.7307	1.8926	1.6609	1.8260	2.0046	0.9230
	2.7823	2.2880	2.3330	2.0890	2.3588	2.1536	1.9643	3.8271
10	1.4572	1.7312	1.4312	1.4841	1.8123	1.8038	2.0297	0.8811
	2.7607	2.3323	2.8315	2.7229	2.2498	2.2674	2.0071	4.0713
11	1.5629	1.8928	1.4850	1.8542	1.4787	1.7832	1.8838	0.7411
	2.5008	2.0887	2.7212	2.2819	2.8616	2.3860	2.2621	5.0774
12	1.9757	1.6609	1.8127	1.4789	1.6762	1.8909	1.0946	
	1.9769	2.3589	2.2494	2.8612	2.5703	2.2705	3.5662	
13	1.8327	1.8264	1.8043	1.7837	1.8910	1.1871	0.5418	
	2.1300	2.1532	2.2668	2.3854	2.2703	3.3265	7.0991	
14	2.0187	2.0049	2.0303	1.8843	1.0947	0.5416		
	1.9331	1.9641	2.0066	2.2614	3.5652	7.1006		
15	0.9263	0.9224	0.8829	0.7419	F-SUB-Q			
	3.7925	3.8279	4.0658	5.0743	M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6948	1.4701	1.4199	1.5222	1.9267	1.7882	1.9720	0.9041
	2.2814	2.6081	2.5528	2.3169	1.8307	1.9736	1.7894	3.5195
9	1.4701	1.7881	1.6881	1.8450	1.6185	1.7827	1.9591	0.9015
	2.6081	2.1233	2.1549	1.9326	2.1851	1.9948	1.8174	3.5436
10	1.4199	1.6887	1.3945	1.4465	1.7698	1.7632	1.9872	0.8626
	2.5527	2.1541	2.6179	2.5192	2.0815	2.0953	1.8527	3.7644
11	1.5222	1.8453	1.4474	1.8134	1.4449	1.7463	1.8463	0.7261
	2.3169	1.9324	2.5177	2.1391	2.6872	2.2347	2.1133	4.6872
12	1.9267	1.6184	1.7702	1.4451	1.6432	1.8560	1.0758	
	1.8307	2.1852	2.0811	2.6868	2.4207	2.1364	3.3454	
13	1.7882	1.7832	1.7637	1.7467	1.8561	1.1665	0.5319	
	1.9736	1.9944	2.0947	2.2342	2.1362	3.1278	6.6939	
14	1.9720	1.9594	1.9877	1.8468	1.0759	0.5317		
	1.7894	1.8171	1.8522	2.1126	3.3444	6.6953		
15	0.9041	0.9009	0.8644	0.7269	F-SUB-Q			
	3.5196	3.5443	3.7594	4.6843	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6309	1.4179	1.3701	1.4681	1.8543	1.7261	1.9003	0.8802
	2.3288	2.6560	2.5924	2.3587	1.8693	2.0116	1.8269	3.5643
9	1.4179	1.7205	1.6283	1.7750	1.5617	1.7216	1.8884	0.8779
	2.6560	2.1577	2.1887	1.9712	2.2243	2.0324	1.8544	3.5786
10	1.3701	1.6290	1.3451	1.3958	1.7046	1.7035	1.9182	0.8439
	2.5924	2.1878	2.6587	2.5589	2.1233	2.1285	1.8849	3.7885
11	1.4681	1.7753	1.3967	1.7480	1.3963	1.6852	1.7832	0.7122
	2.3587	1.9709	2.5573	2.1848	2.7389	2.2745	2.1431	4.6946
12	1.8543	1.5617	1.7050	1.3965	1.5894	1.7938	1.0549	
	1.8693	2.2243	2.1228	2.7385	2.4687	2.1805	3.3673	
13	1.7261	1.7221	1.7040	1.6856	1.7939	1.1410	0.5210	
	2.0116	2.0320	2.1279	2.2738	2.1803	3.1634	6.7679	
14	1.9003	1.8888	1.9187	1.7837	1.0550	0.5209		
	1.8269	1.8542	1.8844	2.1424	3.3664	6.7694		
15	0.8802	0.8773	0.8455	0.7129	F-SUB-Q			
	3.5643	3.5792	3.7838	4.6917	M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5979	1.3816	1.3345	1.4304	1.8184	1.6870	1.8693	0.8445
	2.1673	2.4792	2.4316	2.2179	1.7482	1.8897	1.7056	3.4184
9	1.3816	1.6872	1.5912	1.7403	1.5213	1.6838	1.8580	0.8430
	2.4792	2.0029	2.0456	1.8406	2.0924	1.9078	1.7303	3.4412
10	1.3345	1.5918	1.3101	1.3592	1.6715	1.6670	1.8882	0.8069
	2.4316	2.0447	2.4915	2.4033	1.9794	1.9906	1.7534	3.6377
11	1.4304	1.7405	1.3602	1.7154	1.3614	1.6571	1.7554	0.6790
	2.2179	1.8404	2.4017	2.0209	2.5557	2.1029	1.9840	4.5051
12	1.8184	1.5213	1.6719	1.3616	1.5570	1.7659	1.0094	
	1.7482	2.0925	1.9790	2.5553	2.2987	2.0279	3.2210	
13	1.6870	1.6842	1.6674	1.6576	1.7661	1.0981	0.4971	
	1.8897	1.9073	1.9901	2.1024	2.0277	3.0046	6.5043	
14	1.8693	1.8583	1.8887	1.7559	1.0095	0.4970		
	1.7056	1.7300	1.7529	1.9833	3.2201	6.5057		
15	0.8445	0.8424	0.8086	0.6797	F-SUB-Q			
	3.4184	3.4424	3.6326	4.5022	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5336	1.3264	1.2822	1.3732	1.7464	1.6222	1.7982	0.8091
	2.0477	2.3549	2.3309	2.1365	1.6851	1.8216	1.6438	3.3157
9	1.3264	1.6208	1.5302	1.6708	1.4608	1.6195	1.7877	0.8079
	2.3549	1.9065	1.9587	1.7709	2.0158	1.8374	1.6661	3.3338
10	1.2822	1.5308	1.2588	1.3047	1.6052	1.6032	1.8168	0.7736
	2.3309	1.9578	2.3860	2.3071	1.8999	1.9090	1.6822	3.5155
11	1.3732	1.6710	1.3056	1.6486	1.3072	1.5927	1.6880	0.6504
	2.1365	1.7707	2.3055	1.9296	2.4378	2.0042	1.8895	4.3358
12	1.7464	1.4607	1.6056	1.3074	1.4985	1.6999	0.9681	
	1.6851	2.0159	1.8995	2.4374	2.1721	1.9179	3.0664	
13	1.6222	1.6199	1.6036	1.5931	1.7000	1.0551	0.4764	
	1.8216	1.8370	1.9085	2.0036	1.9178	2.8548	6.1986	
14	1.7982	1.7880	1.8173	1.6885	0.9682	0.4763		
	1.6438	1.6659	1.6817	1.8889	3.0656	6.2000		
15	0.8091	0.8073	0.7753	0.6512	F-SUB-Q			
	3.3157	3.3351	3.5105	4.3329	M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4346	1.2508	1.2115	1.2945	1.6339	1.5290	1.6816	0.7730
	2.0387	2.3210	2.2926	2.1173	1.6849	1.8099	1.6465	3.2588
9	1.2508	1.5171	1.4429	1.5624	1.3779	1.5261	1.6722	0.7717
	2.3210	1.8753	1.9310	1.7672	1.9970	1.8240	1.6667	3.2667
10	1.2115	1.4436	1.1897	1.2308	1.5026	1.5101	1.6989	0.7431
	2.2926	1.9301	2.3450	2.2728	1.8900	1.8865	1.6760	3.4250
11	1.2945	1.5627	1.2317	1.5447	1.2328	1.4878	1.5763	0.6259
	2.1173	1.7669	2.2713	1.8998	2.3935	1.9768	1.8666	4.1922
12	1.6339	1.3778	1.5029	1.2330	1.4123	1.5915	0.9298	
	1.6849	1.9971	1.8896	2.3930	2.1350	1.8987	2.9748	
13	1.5290	1.5266	1.5104	1.4882	1.5916	1.0111	0.4590	
	1.8099	1.8236	1.8860	1.9763	1.8986	2.7569	5.9716	
14	1.6816	1.6725	1.6994	1.5768	0.9299	0.4589		
	1.6465	1.6665	1.6756	1.8661	2.9741	5.9730		
15	0.7730	0.7711	0.7446	0.6265	F-SUB-Q			
	3.2588	3.2674	3.4207	4.1895	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3574	1.1876	1.1503	1.2277	1.5442	1.4507	1.5907	0.7230
	1.9859	2.2550	2.2682	2.1086	1.6860	1.8055	1.6480	3.3065
9	1.1876	1.4340	1.3703	1.4769	1.3065	1.4484	1.5820	0.7216
	2.2550	1.8528	1.9110	1.7639	1.9895	1.8173	1.6664	3.3194
10	1.1503	1.3710	1.1306	1.1687	1.4227	1.4334	1.6056	0.6920
	2.2682	1.9101	2.3176	2.2529	1.8728	1.8695	1.6706	3.4788
11	1.2277	1.4771	1.1695	1.4631	1.1711	1.4061	1.4878	0.5801
	2.1086	1.7636	2.2514	1.8651	2.3388	1.9546	1.8509	4.2527
12	1.5442	1.3065	1.4230	1.1713	1.3432	1.5065	0.8644	
	1.6860	1.9896	1.8724	2.3385	2.1046	1.8775	2.9700	
13	1.4507	1.4488	1.4337	1.4065	1.5066	0.9456	0.4275	
	1.8055	1.8169	1.8691	1.9541	1.8773	2.7790	6.0288	
14	1.5907	1.5823	1.6060	1.4882	0.8645	0.4273		
	1.6480	1.6662	1.6702	1.8503	2.9692	6.0303		
15	0.7230	0.7211	0.6935	0.5808	F-SUB-Q			
	3.3065	3.3206	3.4740	4.2499	M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2400	1.0915	1.0440	1.1240	1.3932	1.3146	1.4265	0.6658
	2.0514	2.3216	2.3806	2.2017	1.7860	1.9077	1.7598	3.4462
9	1.0915	1.2966	1.2427	1.3371	1.1971	1.3123	1.4187	0.6646
	2.3216	1.9447	2.0074	1.8602	2.0756	1.9192	1.7780	3.4569
10	1.0440	1.2433	1.0268	1.0751	1.2975	1.3011	1.4404	0.6359
	2.3806	2.0063	2.4302	2.3336	1.9631	1.9625	1.7769	3.6248
11	1.1240	1.3373	1.0758	1.3320	1.0806	1.2760	1.3426	0.5302
	2.2017	1.8599	2.3321	1.9448	2.4011	2.0428	1.9427	4.4347
12	1.3932	1.1971	1.2978	1.0808	1.2221	1.3564	0.7957	
	1.7860	2.0757	1.9627	2.4008	2.1678	1.9551	3.0491	
13	1.3146	1.3126	1.3014	1.2762	1.3565	0.8606	0.3901	
	1.9077	1.9188	1.9621	2.0423	1.9550	2.8581	6.2138	
14	1.4265	1.4189	1.4407	1.3429	0.7958	0.3900		
	1.7598	1.7778	1.7765	1.9422	3.0484	6.2153		
15	0.6658	0.6642	0.6371	0.5308	F-SUB-Q			
	3.4461	3.4581	3.6203	4.4319	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 50 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.1616	* 0.8980	* 0.8315	* 0.9164	* 1.2451	* 1.0454	* 1.2361	* 0.5518
	* 2.0931	* 2.7013	* 2.8848	* 2.6108	* 1.9303	* 2.3208	* 1.9655	* 4.0331
9	* 0.8980	* 1.1608	* 1.0014	* 1.2115	* 0.9812	* 1.0443	* 1.2318	* 0.5548
	* 2.7013	* 2.0840	* 2.4016	* 1.9821	* 2.4481	* 2.3360	* 1.9778	* 4.0146
10	* 0.8315	* 1.0019	* 0.8141	* 0.8864	* 1.2060	* 1.0373	* 1.2122	* 0.5273
	* 2.8848	* 2.4004	* 2.9578	* 2.7286	* 2.0275	* 2.3746	* 2.0337	* 4.2329
11	* 0.9164	* 1.2117	* 0.8868	* 1.2054	* 0.8976	* 1.1897	* 1.1258	* 0.4364
	* 2.6108	* 1.9819	* 2.7270	* 2.0522	* 2.7690	* 2.1030	* 2.2278	* 5.2022
12	* 1.2451	* 0.9812	* 1.2062	* 0.8977	* 0.9867	* 1.1406	* 0.6695	*
	* 1.9303	* 2.4482	* 2.0271	* 2.7686	* 2.5768	* 2.2325	* 3.4887	*
13	* 1.0454	* 1.0445	* 1.0375	* 1.1899	* 1.1406	* 0.6999	* 0.3168	*
	* 2.3208	* 2.3355	* 2.3741	* 2.1027	* 2.2323	* 3.3719	* 7.3547	*
14	* 1.2361	* 1.2319	* 1.2124	* 1.1261	* 0.6696	* 0.3167	*	*
	* 1.9655	* 1.9776	* 2.0332	* 2.2272	* 3.4879	* 7.3563	*	*
15	* 0.5518	* 0.5545	* 0.5278	* 0.4369	* F-SUB-Q			
	* 4.0331	* 4.0155	* 4.2312	* 5.1994	* M-SUB-Q			

AT 50% POWER, 50 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4424	* 0.3746	* 0.3512	* 0.3891	* 0.4676	* 0.3970	* 0.4317	* 0.2241
	* 5.2929	* 6.2492	* 6.6263	* 5.9715	* 4.9771	* 5.9182	* 5.4473	* 9.6466
9	* 0.3746	* 0.4355	* 0.3852	* 0.4523	* 0.4048	* 0.3959	* 0.4299	* 0.2246
	* 6.2492	* 5.3595	* 6.0467	* 5.1440	* 5.7584	* 5.9641	* 5.4838	* 9.6340
10	* 0.3512	* 0.3854	* 0.3435	* 0.3793	* 0.4557	* 0.3947	* 0.4205	* 0.2157
	* 6.6263	* 6.0440	* 6.7971	* 6.1961	* 5.1939	* 6.0548	* 5.6681	* 10.0440
11	* 0.3891	* 0.4524	* 0.3795	* 0.4394	* 0.3830	* 0.4428	* 0.3909	* 0.1824
	* 5.9715	* 5.1432	* 6.1938	* 5.4325	* 6.2741	* 5.4516	* 6.1928	* 12.0712
12	* 0.4676	* 0.4048	* 0.4558	* 0.3831	* 0.3723	* 0.3988	* 0.2694	*
	* 4.9771	* 5.7584	* 5.1929	* 6.2733	* 6.5968	* 6.1675	* 8.3837	*
13	* 0.3970	* 0.3960	* 0.3947	* 0.4429	* 0.3988	* 0.2762	* 0.1355	*
	* 5.9182	* 5.9631	* 6.0537	* 5.4508	* 6.1671	* 8.2637	* 16.6763	*
14	* 0.4317	* 0.4299	* 0.4206	* 0.3910	* 0.2694	* 0.1354	*	*
	* 5.4473	* 5.4833	* 5.6668	* 6.1914	* 8.3817	* 16.6790	*	*
15	* 0.2241	* 0.2245	* 0.2159	* 0.1826	* F-SUB-Q			
	* 9.6466	* 9.6342	* 10.0445	* 12.0671	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.3172	* 0.3620	* 0.3940	* 0.4495	* 0.5374	* 0.4650	* 0.4915	* 0.2660
	* 5.0417	* 5.9356	* 6.0823	* 5.3227	* 4.4634	* 5.1906	* 4.9660	* 8.3532
9	* 0.3620	* 0.4478	* 0.4275	* 0.5138	* 0.4698	* 0.4575	* 0.4857	* 0.2648
	* 5.9356	* 5.2273	* 5.6322	* 4.6586	* 5.0945	* 5.2697	* 5.0195	* 8.3719
10	* 0.3940	* 0.4276	* 0.3863	* 0.4233	* 0.4974	* 0.4353	* 0.4553	* 0.2460
	* 6.0823	* 5.6310	* 6.2933	* 5.6594	* 4.7865	* 5.4714	* 5.2390	* 8.8129
11	* 0.4495	* 0.5138	* 0.4234	* 0.4475	* 0.3867	* 0.4345	* 0.4027	* 0.2015
	* 5.3227	* 4.6583	* 5.6583	* 5.1284	* 5.8258	* 5.1432	* 5.8742	* 10.6472
12	* 0.5373	* 0.4698	* 0.4975	* 0.3867	* 0.2961	* 0.3278	* 0.2498	
	* 4.4634	* 5.0943	* 4.7859	* 5.8252	* 5.8369	* 5.5839	* 7.5987	
13	* 0.4650	* 0.4575	* 0.4354	* 0.4345	* 0.3278	* 0.1991	* 0.1203	
	* 5.1906	* 5.2694	* 5.4705	* 5.1426	* 5.5837	* 7.1433	* 13.6892	
14	* 0.4915	* 0.4857	* 0.4554	* 0.4028	* 0.2499	* 0.1203		
	* 4.9660	* 5.0190	* 5.2379	* 5.8728	* 7.5966	* 13.6912		
15	* 0.2660	* 0.2648	* 0.2464	* 0.2017	* F-SUB-Q			
	* 8.3532	* 8.3703	* 8.8077	* 10.6438	* M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.7855	* 0.8367	* 0.8966	* 1.0197	* 1.3289	* 1.1489	* 1.2970	* 0.6493
	* 2.1247	* 2.6513	* 2.7614	* 2.4269	* 1.8696	* 2.1754	* 1.9472	* 3.5420
9	* 0.8367	* 1.1246	* 1.0550	* 1.2761	* 1.0887	* 1.1405	* 1.2828	* 0.6443
	* 2.6513	* 2.1639	* 2.3542	* 1.9409	* 2.2745	* 2.1892	* 1.9507	* 3.5308
10	* 0.8966	* 1.0551	* 0.8794	* 0.9589	* 1.2352	* 1.0815	* 1.2118	* 0.5970
	* 2.7614	* 2.3540	* 2.8439	* 2.5760	* 1.9957	* 2.2837	* 2.0364	* 3.7471
11	* 1.0197	* 1.2762	* 0.9592	* 1.1482	* 0.8703	* 1.0925	* 1.0576	* 0.4814
	* 2.4269	* 1.9407	* 2.5754	* 2.0679	* 2.6418	* 2.1155	* 2.2801	* 4.6126
12	* 1.3289	* 1.0887	* 1.2353	* 0.8704	* 0.7232	* 0.8615	* 0.6157	
	* 1.8696	* 2.2744	* 1.9954	* 2.6415	* 2.4034	* 2.1726	* 3.1850	
13	* 1.1489	* 1.1406	* 1.0817	* 1.0928	* 0.8616	* 0.4956	* 0.2837	
	* 2.1754	* 2.1890	* 2.2832	* 2.1152	* 2.1725	* 2.9533	* 5.9989	
14	* 1.2970	* 1.2829	* 1.2120	* 1.0579	* 0.6158	* 0.2837		
	* 1.9472	* 1.9505	* 2.0359	* 2.2797	* 3.1841	* 5.9998		
15	* 0.6493	* 0.6441	* 0.5977	* 0.4818	* F-SUB-Q			
	* 3.5420	* 3.5304	* 3.7452	* 4.6109	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.9324	1.0410	1.1197	1.2586	1.5310	1.4363	1.5101	0.8018
	1.9774	2.2346	2.2708	2.0198	1.6624	1.7791	1.6935	2.9023
9	1.0410	1.2925	1.3010	1.4534	1.3365	1.4230	1.4845	0.7934
	2.2346	1.9518	1.9574	1.7479	1.9021	1.7918	1.7174	2.9234
10	1.1197	1.3011	1.1003	1.1748	1.3803	1.3520	1.4522	0.7389
	2.2708	1.9573	2.3109	2.1561	1.8345	1.8737	1.7429	3.1010
11	1.2586	1.4535	1.1751	1.3092	1.0625	1.2314	1.2786	0.5994
	2.0198	1.7478	2.1555	1.8616	2.2257	1.9583	1.9479	3.8052
12	1.5310	1.3365	1.3805	1.0626	0.8935	1.0305	0.7577	
	1.6624	1.9020	1.8342	2.2254	2.0025	1.8632	2.6634	
13	1.4363	1.4231	1.3523	1.2317	1.0306	0.6163	0.3573	
	1.7791	1.7916	1.8733	1.9580	1.8632	2.4553	4.9164	
14	1.5101	1.4847	1.4525	1.2790	0.7578	0.3572		
	1.6935	1.7173	1.7425	1.9474	2.6626	4.9173		
15	0.8018	0.7932	0.7398	0.6000	F-SUB-Q			
	2.9023	2.9231	3.0992	3.8038	M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0799	1.1568	1.2462	1.3996	1.7481	1.6160	1.7300	0.8750
	1.8088	2.0910	2.1078	1.8755	1.5012	1.6260	1.5189	2.7326
9	1.1568	1.4769	1.4600	1.6566	1.4883	1.6011	1.7018	0.8640
	2.0910	1.7788	1.8008	1.5831	1.7621	1.6389	1.5410	2.7601
10	1.2462	1.4600	1.2251	1.3043	1.5747	1.5230	1.6706	0.8047
	2.1078	1.8007	2.1410	2.0056	1.6605	1.7142	1.5612	2.9347
11	1.3995	1.6567	1.3047	1.4920	1.1797	1.4162	1.4719	0.6543
	1.8755	1.5830	2.0049	1.6922	2.0746	1.7729	1.7546	3.6016
12	1.7481	1.4884	1.5750	1.1798	1.0032	1.1852	0.8329	
	1.5012	1.7620	1.6603	2.0743	1.8442	1.6826	2.5200	
13	1.6160	1.6012	1.5234	1.4165	1.1853	0.6891	0.3904	
	1.6260	1.6387	1.7137	1.7726	1.6826	2.3084	4.6957	
14	1.7300	1.7020	1.6709	1.4723	0.8330	0.3903		
	1.5189	1.5409	1.5609	1.7542	2.5192	4.6966		
15	0.8750	0.8637	0.8062	0.6550	F-SUB-Q			
	2.7326	2.7600	2.9314	3.5998	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1708	1.2170	1.3047	1.4711	1.8606	1.7024	1.8439	0.9206
	1.7791	2.0902	2.1037	1.8615	1.4692	1.6048	1.4809	2.7010
9	1.2170	1.5714	1.5351	1.7640	1.5651	1.6864	1.8208	0.9111
	2.0902	1.7501	1.7872	1.5509	1.7481	1.6184	1.4963	2.7227
10	1.3047	1.5351	1.2806	1.3714	1.6787	1.6107	1.7887	0.8491
	2.1037	1.7872	2.1390	1.9918	1.6246	1.6882	1.5176	2.8971
11	1.4711	1.7641	1.3718	1.5905	1.2470	1.5278	1.5845	0.6922
	1.8615	1.5508	1.9911	1.6623	2.0607	1.7285	1.7063	3.5525
12	1.8606	1.5652	1.6790	1.2472	1.0753	1.2837	0.8900	
	1.4692	1.7480	1.6243	2.0605	1.8278	1.6458	2.4826	
13	1.7024	1.6866	1.6111	1.5282	1.2839	0.7420	0.4134	
	1.6048	1.6182	1.6878	1.7282	1.6457	2.2903	4.6924	
14	1.8439	1.8210	1.7892	1.5849	0.8901	0.4133		
	1.4809	1.4961	1.5172	1.7059	2.4819	4.6933		
15	0.9206	0.9108	0.8507	0.6929	F-SUB-Q			
	2.7010	2.7226	2.8937	3.5507	M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2184	1.2517	1.3420	1.5095	1.9192	1.7485	1.9054	0.9502
	1.8223	2.1568	2.1674	1.9172	1.5025	1.6451	1.5060	2.7559
9	1.2517	1.6194	1.5745	1.8207	1.6066	1.7325	1.8871	0.9424
	2.1568	1.7963	1.8434	1.5879	1.7985	1.6593	1.5198	2.7729
10	1.3420	1.5746	1.3088	1.4092	1.7366	1.6610	1.8565	0.8806
	2.1674	1.8433	2.2155	2.0506	1.6587	1.7265	1.5410	2.9459
11	1.5095	1.8208	1.4097	1.6459	1.2945	1.5961	1.6528	0.7205
	1.9172	1.5878	2.0498	1.6963	2.1091	1.7509	1.7228	3.6052
12	1.9192	1.6067	1.7369	1.2947	1.1204	1.3467	0.9322	
	1.5025	1.7985	1.6584	2.1088	1.8796	1.6794	2.5231	
13	1.7485	1.7327	1.6615	1.5965	1.3468	0.7807	0.4313	
	1.6451	1.6591	1.7260	1.7506	1.6793	2.3474	4.8223	
14	1.9054	1.8873	1.8569	1.6533	0.9323	0.4312		
	1.5060	1.5196	1.5406	1.7224	2.5223	4.8231		
15	0.9502	0.9421	0.8821	0.7212	F-SUB-Q			
	2.7559	2.7729	2.9428	3.6035	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2578	1.2753	1.3647	1.5410	1.9753	1.7908	1.9693	0.9664
	1.8763	2.2361	2.2879	2.0127	1.5615	1.7142	1.5542	2.8912
9	1.2753	1.6662	1.6101	1.8751	1.6421	1.7752	1.9515	0.9581
	2.2361	1.8443	1.9348	1.6526	1.8845	1.7288	1.5680	2.9105
10	1.3647	1.6102	1.3340	1.4417	1.7934	1.7086	1.9231	0.8965
	2.2879	1.9346	2.3344	2.1506	1.7203	1.7944	1.5894	3.0919
11	1.5410	1.8752	1.4422	1.7006	1.3291	1.6632	1.7203	0.7343
	2.0127	1.6525	2.1497	1.7417	2.1739	1.7829	1.7469	3.7874
12	1.9753	1.6422	1.7937	1.3293	1.1535	1.4084	0.9589	
	1.5615	1.8845	1.7199	2.1736	1.9467	1.7264	2.6271	
13	1.7908	1.7754	1.7091	1.6636	1.4085	0.8057	0.4421	
	1.7142	1.7285	1.7939	1.7826	1.7263	2.4578	5.0761	
14	1.9693	1.9517	1.9235	1.7208	0.9590	0.4420		
	1.5542	1.5678	1.5890	1.7465	2.6263	5.0770		
15	0.9664	0.9577	0.8981	0.7350	F-SUB-Q			
	2.8912	2.9107	3.0883	3.7855	M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2847	1.2924	1.3794	1.5582	2.0050	1.8135	2.0056	0.9769
	1.9812	2.3742	2.4690	2.1664	1.6702	1.8328	1.6514	3.0944
9	1.2924	1.6939	1.6304	1.9052	1.6615	1.7989	1.9889	0.9691
	2.3742	1.9525	2.0842	1.7708	2.0255	1.8482	1.6657	3.1138
10	1.3794	1.6306	1.3482	1.4615	1.8284	1.7387	1.9648	0.9089
	2.4690	2.0840	2.5214	2.3130	1.8364	1.9145	1.6877	3.3056
11	1.5582	1.9054	1.4621	1.7359	1.3570	1.7099	1.7668	0.7467
	2.1664	1.7707	2.3121	1.8297	2.2910	1.8662	1.8264	4.0378
12	2.0050	1.6615	1.8288	1.3572	1.1834	1.4560	0.9838	
	1.6702	2.0255	1.8360	2.2907	2.0510	1.8083	2.7556	
13	1.8135	1.7992	1.7392	1.7104	1.4562	0.8304	0.4536	
	1.8328	1.8479	1.9140	1.8657	1.8082	2.6031	5.3836	
14	2.0056	1.9891	1.9652	1.7673	0.9839	0.4535		
	1.6514	1.6655	1.6872	1.8260	2.7548	5.3845		
15	0.9769	0.9687	0.9106	0.7475	F-SUB-Q			
	3.0944	3.1140	3.3016	4.0358	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 16 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3221	1.3146	1.3921	1.5735	2.0343	1.8338	2.0393	0.9825
	2.1490	2.5820	2.6875	2.3432	1.7958	1.9733	1.7691	3.3363
9	1.3146	1.7274	1.6522	1.9358	1.6792	1.8204	2.0241	0.9735
	2.5820	2.0908	2.2595	1.9082	2.1881	1.9899	1.7841	3.3620
10	1.3921	1.6524	1.3640	1.4811	1.8657	1.7681	2.0058	0.9165
	2.6875	2.2592	2.7268	2.5027	1.9614	2.0614	1.8090	3.5636
11	1.5735	1.9360	1.4818	1.7767	1.3881	1.7600	1.8153	0.7559
	2.3432	1.9081	2.5017	1.9615	2.4641	1.9786	1.9327	4.3274
12	2.0343	1.6792	1.8660	1.3883	1.2261	1.5149	1.0073	
	1.7958	2.1881	1.9610	2.4638	2.2092	1.9342	2.9742	
13	1.8338	1.8206	1.7685	1.7604	1.5150	0.8615	0.4672	
	1.9733	1.9896	2.0608	1.9782	1.9340	2.8126	5.8182	
14	2.0393	2.0243	2.0062	1.8158	1.0075	0.4671		
	1.7691	1.7839	1.8086	1.9323	2.9733	5.8193		
15	0.9825	0.9731	0.9182	0.7567				F-SUB-Q
	3.3363	3.3623	3.5592	4.3253				M-SUB-Q

AT 50% POWER, 100 EFPD, THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3568	1.3312	1.4022	1.5679	2.0174	1.8225	2.0244	0.9886
	2.3940	2.8607	2.9069	2.5461	1.9586	2.1504	1.9327	3.5900
9	1.3312	1.7306	1.6499	1.9235	1.6722	1.8111	2.0113	0.9842
	2.8607	2.3277	2.4722	2.0834	2.3776	2.1654	1.9456	3.5987
10	1.4022	1.6502	1.3625	1.4823	1.8626	1.7694	2.0026	0.9308
	2.9069	2.4718	2.9945	2.7231	2.1496	2.2319	1.9630	3.7874
11	1.5679	1.9236	1.4829	1.7858	1.4155	1.7763	1.8285	0.7740
	2.5461	2.0832	2.7219	2.1664	2.7054	2.1769	2.1257	4.6065
12	2.0174	1.6722	1.8629	1.4158	1.2843	1.5668	1.0484	
	1.9586	2.3776	2.1492	2.7051	2.4553	2.1468	3.2140	
13	1.8225	1.8114	1.7699	1.7767	1.5670	0.9199	0.4924	
	2.1504	2.1651	2.2313	2.1764	2.1467	3.0889	6.3469	
14	2.0244	2.0115	2.0031	1.8290	1.0485	0.4923		
	1.9327	1.9454	1.9625	2.1252	3.2132	6.3480		
15	0.9886	0.9838	0.9323	0.7747				F-SUB-Q
	3.5900	3.5990	3.7840	4.6042				M-SUB-Q

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5039	1.3803	1.4111	1.5837	2.0535	1.8442	2.0644	0.9849
	2.6345	3.1759	3.1472	2.7348	2.0795	2.2811	2.0301	3.8437
9	1.3803	1.7881	1.6790	1.9630	1.6909	1.8346	2.0534	0.9784
	3.1759	2.5697	2.6479	2.2165	2.5494	2.2999	2.0465	3.8664
10	1.4111	1.6794	1.3834	1.5059	1.9128	1.8050	2.0543	0.9279
	3.1472	2.6473	3.2146	2.9253	2.2855	2.3780	2.0745	4.0921
11	1.5837	1.9632	1.5066	1.8611	1.4633	1.8493	1.8981	0.7743
	2.7348	2.2163	2.9239	2.3749	2.9886	2.3735	2.3080	5.0056
12	2.0535	1.6909	1.9132	1.4636	1.4236	1.7019	1.0803	
	2.0795	2.5494	2.2851	2.9883	2.6853	2.3335	3.5799	
13	1.8442	1.8349	1.8055	1.8497	1.7021	1.0154	0.5140	
	2.2811	2.2995	2.3774	2.3730	2.3334	3.4274	7.0726	
14	2.0644	2.0536	2.0547	1.8985	1.0804	0.5139		
	2.0301	2.0463	2.0740	2.3073	3.5789	7.0739		
15	0.9849	0.9779	0.9297	0.7751	F-SUB-Q			
	3.8437	3.8669	4.0872	5.0030	M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6883	1.4289	1.4169	1.5833	2.0549	1.8421	2.0678	0.9819
	2.6869	3.2306	3.3387	2.9176	2.2409	2.4718	2.1926	4.1575
9	1.4289	1.8175	1.6880	1.9696	1.6907	1.8353	2.0592	0.9771
	3.2306	2.6167	2.8203	2.3702	2.7336	2.4913	2.2095	4.1767
10	1.4169	1.6885	1.3903	1.5140	1.9313	1.8176	2.0723	0.9300
	3.3387	2.8195	3.4284	3.1375	2.4775	2.5727	2.2381	4.4174
11	1.5833	1.9697	1.5147	1.9096	1.5036	1.8913	1.9363	0.7810
	2.9176	2.3700	3.1359	2.4732	3.1324	2.5156	2.4680	5.4134
12	2.0549	1.6907	1.9317	1.5038	1.5679	1.8300	1.1190	
	2.2409	2.7337	2.4771	3.1320	2.8708	2.4934	3.8301	
13	1.8421	1.8357	1.8180	1.8917	1.8301	1.1182	0.5401	
	2.4718	2.4909	2.5721	2.5150	2.4932	3.6861	7.6682	
14	2.0678	2.0594	2.0728	1.9368	1.1191	0.5399		
	2.1926	2.2093	2.2376	2.4674	3.8291	7.6696		
15	0.9819	0.9766	0.9318	0.7817	F-SUB-Q			
	4.1575	4.1773	4.4121	5.4106	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7458	1.4582	1.4153	1.5661	2.0239	1.8180	2.0384	0.9781
	2.7233	3.2645	3.2258	2.8383	2.1858	2.4240	2.1652	4.0853
9	1.4582	1.8115	1.6751	1.9439	1.6714	1.8181	2.0320	0.9761
	3.2645	2.6496	2.7438	2.3129	2.6607	2.4476	2.1866	4.0968
10	1.4153	1.6755	1.3807	1.5040	1.9154	1.8062	2.0579	0.9342
	3.2258	2.7430	3.3352	3.0522	2.4217	2.5477	2.2312	4.3555
11	1.5661	1.9441	1.5048	1.9167	1.5173	1.8955	1.9387	0.7910
	2.8383	2.3127	3.0506	2.5000	3.1548	2.5386	2.4881	5.3816
12	2.0239	1.6713	1.9158	1.5175	1.6398	1.8893	1.1508	
	2.1858	2.6607	2.4212	3.1543	2.8957	2.5176	3.8094	
13	1.8180	1.8185	1.8066	1.8959	1.8894	1.1813	0.5621	
	2.4240	2.4472	2.5471	2.5380	2.5174	3.6796	7.6346	
14	2.0384	2.0322	2.0584	1.9392	1.1509	0.5620		
	2.1652	2.1863	2.2307	2.4875	3.8084	7.6361		
15	0.9781	0.9757	0.9357	0.7918	F-SUB-Q			
	4.0853	4.0973	4.3514	5.3788	M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7864	1.4768	1.4044	1.5620	2.0335	1.8178	2.0530	0.9629
	2.5848	3.1036	3.1420	2.7480	2.1006	2.3386	2.0736	3.9945
9	1.4768	1.8328	1.6798	1.9563	1.6685	1.8224	2.0483	0.9595
	3.1036	2.5044	2.6466	2.2217	2.5744	2.3613	2.0938	4.0177
10	1.4044	1.6803	1.3819	1.5051	1.9345	1.8162	2.0839	0.9196
	3.1420	2.6458	3.2279	2.9531	2.3258	2.4546	2.1357	4.2724
11	1.5620	1.9565	1.5059	1.9477	1.5319	1.9311	1.9743	0.7792
	2.7480	2.2215	2.9515	2.3744	3.0172	2.4098	2.3602	5.2955
12	2.0335	1.6685	1.9349	1.5322	1.6838	1.9464	1.1512	
	2.1006	2.5744	2.3253	3.0167	2.7769	2.3966	3.6843	
13	1.8178	1.8228	1.8166	1.9315	1.9466	1.1970	0.5630	
	2.3386	2.3609	2.4540	2.4093	2.3965	3.5576	7.3685	
14	2.0530	2.0485	2.0844	1.9748	1.1513	0.5629		
	2.0736	2.0936	2.1352	2.3596	3.6832	7.3700		
15	0.9629	0.9589	0.9214	0.7800	F-SUB-Q			
	3.9945	4.0184	4.2672	5.2926	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 10 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7800	1.4670	1.3874	1.5415	2.0120	1.7961	2.0355	0.9464
	2.3873	2.8744	2.9075	2.5544	1.9565	2.1868	1.9331	3.7339
9	1.4670	1.8200	1.6620	1.9375	1.6469	1.8042	2.0321	0.9440
	2.8744	2.3175	2.4437	2.0583	2.3970	2.2053	1.9502	3.7571
10	1.3874	1.6626	1.3653	1.4885	1.9195	1.8015	2.0748	0.9057
	2.9075	2.4429	2.9802	2.7341	2.1550	2.2824	1.9824	3.9794
11	1.5415	1.9377	1.4893	1.9395	1.5225	1.9283	1.9728	0.7692
	2.5544	2.0581	2.7326	2.1936	2.7950	2.2223	2.1754	4.9069
12	2.0120	1.6469	1.9199	1.5227	1.6864	1.9541	1.1439	
	1.9565	2.3971	2.1546	2.7946	2.5619	2.2050	3.4210	
13	1.7961	1.8047	1.8019	1.9287	1.9542	1.1954	0.5594	
	2.1868	2.2049	2.2819	2.2219	2.2048	3.2997	6.8695	
14	2.0355	2.0323	2.0753	1.9732	1.1439	0.5592		
	1.9331	1.9500	1.9820	2.1749	3.4202	6.8709		
15	0.9464	0.9434	0.9075	0.7700	F-SUB-Q			
	3.7339	3.7578	3.9744	4.9043	M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 9 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7476	1.4396	1.3603	1.5092	1.9710	1.7599	1.9965	0.9275
	2.2341	2.6876	2.6780	2.3613	1.8080	2.0225	1.7862	3.4584
9	1.4396	1.7862	1.6300	1.8987	1.6125	1.7703	1.9946	0.9259
	2.6876	2.1601	2.2526	1.8998	2.2162	2.0388	1.8011	3.4711
10	1.3603	1.6306	1.3377	1.4586	1.8832	1.7695	2.0408	0.8907
	2.6780	2.2518	2.7511	2.5244	1.9895	2.1050	1.8263	3.6724
11	1.5091	1.8989	1.4594	1.9069	1.4963	1.8982	1.9439	0.7573
	2.3613	1.8996	2.5230	2.0484	2.6135	2.0749	2.0285	4.5211
12	1.9710	1.6124	1.8836	1.4965	1.6641	1.9301	1.1319	
	1.8080	2.2163	1.9891	2.6132	2.4037	2.0660	3.1935	
13	1.7599	1.7707	1.7699	1.8986	1.9303	1.1826	0.5528	
	2.0225	2.0384	2.1045	2.0745	2.0658	3.0945	6.4582	
14	1.9965	1.9950	2.0413	1.9444	1.1320	0.5526		
	1.7862	1.8009	1.8259	2.0280	3.1926	6.4595		
15	0.9275	0.9253	0.8924	0.7581	F-SUB-Q			
	3.4584	3.4718	3.6679	4.5187	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6885	* 1.3959	* 1.3281	* 1.4634	* 1.9042	* 1.7061	* 1.9303	* 0.9064
	* 2.2794	* 2.7324	* 2.6977	* 2.3979	* 1.8437	* 2.0579	* 1.8220	* 3.4973
9	* 1.3959	* 1.7268	* 1.5803	* 1.8344	* 1.5627	* 1.7175	* 1.9298	* 0.9064
	* 2.7324	* 2.1974	* 2.2836	* 1.9346	* 2.2523	* 2.0733	* 1.8363	* 3.5004
10	* 1.3281	* 1.5809	* 1.2966	* 1.4143	* 1.8204	* 1.7176	* 1.9777	* 0.8747
	* 2.6977	* 2.2827	* 2.7907	* 2.5603	* 2.0265	* 2.1349	* 1.8558	* 3.6912
11	* 1.4634	* 1.8346	* 1.4150	* 1.8454	* 1.4537	* 1.8383	* 1.8855	* 0.7464
	* 2.3979	* 1.9343	* 2.5588	* 2.0893	* 2.6572	* 2.1169	* 2.0556	* 4.5198
12	* 1.9042	* 1.5626	* 1.8208	* 1.4540	* 1.6186	* 1.8744	* 1.1141	
	* 1.8437	* 2.2524	* 2.0261	* 2.6568	* 2.4450	* 2.1054	* 3.2118	
13	* 1.7061	* 1.7179	* 1.7180	* 1.8387	* 1.8746	* 1.1629	* 0.5444	
	* 2.0579	* 2.0729	* 2.1345	* 2.1164	* 2.1052	* 3.1200	* 6.5086	
14	* 1.9303	* 1.9302	* 1.9781	* 1.8860	* 1.1142	* 0.5443		
	* 1.8220	* 1.8361	* 1.8554	* 2.0551	* 3.2111	* 6.5100		
15	* 0.9064	* 0.9059	* 0.8763	* 0.7472	* F-SUB-Q			
	* 3.4973	* 3.5011	* 3.6869	* 4.5174	* M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6606	* 1.3646	* 1.2871	* 1.4277	* 1.8734	* 1.6702	* 1.9027	* 0.8715
	* 2.1251	* 2.5557	* 2.5539	* 2.2579	* 1.7229	* 1.9350	* 1.7015	* 3.3547
9	* 1.3646	* 1.6994	* 1.5477	* 1.8047	* 1.5260	* 1.6824	* 1.9032	* 0.8719
	* 2.5557	* 2.0257	* 2.1361	* 1.8047	* 2.1192	* 1.9480	* 1.7137	* 3.3707
10	* 1.2871	* 1.5483	* 1.2661	* 1.3804	* 1.7909	* 1.6835	* 1.9519	* 0.8384
	* 2.5539	* 2.1352	* 2.6183	* 2.4051	* 1.8893	* 1.9985	* 1.7262	* 3.5449
11	* 1.4277	* 1.8049	* 1.3812	* 1.8164	* 1.4191	* 1.8128	* 1.8615	* 0.7129
	* 2.2579	* 1.8045	* 2.4036	* 1.9313	* 2.4802	* 1.9517	* 1.9006	* 4.3426
12	* 1.8734	* 1.5259	* 1.7912	* 1.4193	* 1.5891	* 1.8506	* 1.0693	
	* 1.7229	* 2.1193	* 1.8889	* 2.4798	* 2.2796	* 1.9587	* 3.0692	
13	* 1.6702	* 1.6828	* 1.6839	* 1.8132	* 1.8508	* 1.1223	* 0.5206	
	* 1.9350	* 1.9476	* 1.9981	* 1.9513	* 1.9586	* 2.9646	* 6.2641	
14	* 1.9027	* 1.9036	* 1.9524	* 1.8620	* 1.0694	* 0.5204		
	* 1.7015	* 1.7135	* 1.7259	* 1.9002	* 3.0684	* 6.2656		
15	* 0.8715	* 0.8712	* 0.8401	* 0.7136	* F-SUB-Q			
	* 3.3547	* 3.3714	* 3.5403	* 4.3402	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5946	1.3118	1.2383	1.3719	1.8011	1.6072	1.8301	0.8354
	2.0058	2.4250	2.4548	2.1787	1.6629	1.8689	1.6439	3.2600
9	1.3118	1.6341	1.4900	1.7343	1.4665	1.6194	1.8309	0.8362
	2.4250	1.9333	2.0488	1.7388	2.0450	1.8798	1.6545	3.2727
10	1.2383	1.4907	1.2180	1.3259	1.7190	1.6202	1.8796	0.8042
	2.4548	2.0479	2.5141	2.3135	1.8178	1.9209	1.6591	3.4332
11	1.3719	1.7345	1.3267	1.7460	1.3631	1.7415	1.7914	0.6832
	2.1787	1.7386	2.3121	1.8482	2.3743	1.8736	1.8145	4.1903
12	1.8011	1.4664	1.7194	1.3633	1.5304	1.7823	1.0262	
	1.6629	2.0451	1.8174	2.3740	2.1586	1.8557	2.9301	
13	1.6072	1.6198	1.6205	1.7419	1.7824	1.0792	0.4991	
	1.8689	1.8794	1.9204	1.8732	1.8556	2.8216	5.9828	
14	1.8301	1.8313	1.8800	1.7918	1.0263	0.4989		
	1.6439	1.6543	1.6587	1.8141	2.9294	5.9842		
15	0.8354	0.8356	0.8058	0.6839	F-SUB-Q			
	3.2600	3.2739	3.4287	4.1879	M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4856	1.2351	1.1776	1.2931	1.6809	1.5129	1.7053	0.7963
	2.0074	2.4066	2.4059	2.1653	1.6705	1.8639	1.6564	3.2187
9	1.2351	1.5266	1.4040	1.6175	1.3809	1.5245	1.7058	0.7968
	2.4066	1.9064	2.0268	1.7436	2.0345	1.8731	1.6657	3.2171
10	1.1776	1.4047	1.1502	1.2481	1.5998	1.5237	1.7533	0.7705
	2.4059	2.0259	2.4827	2.2906	1.8185	1.9065	1.6607	3.3619
11	1.2931	1.6178	1.2489	1.6297	1.2831	1.6184	1.6683	0.6560
	2.1653	1.7434	2.2892	1.8317	2.3396	1.8581	1.8005	4.0718
12	1.6809	1.3808	1.6001	1.2833	1.4392	1.6638	0.9826	
	1.6705	2.0346	1.8181	2.3392	2.1329	1.8494	2.8592	
13	1.5129	1.5249	1.5240	1.6188	1.6639	1.0322	0.4795	
	1.8639	1.8727	1.9061	1.8577	1.8493	2.7391	5.7983	
14	1.7053	1.7062	1.7537	1.6687	0.9826	0.4794		
	1.6564	1.6655	1.6604	1.8000	2.8585	5.7996		
15	0.7963	0.7964	0.7719	0.6567	F-SUB-Q			
	3.2187	3.2178	3.3579	4.0696	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3934	1.1646	1.1040	1.2158	1.5784	1.4257	1.5986	0.7390
	1.9889	2.3604	2.4239	2.1801	1.6858	1.8766	1.6765	3.2981
9	1.1646	1.4354	1.3254	1.5181	1.2995	1.4362	1.5987	0.7393
	2.3604	1.8992	2.0242	1.7561	2.0466	1.8844	1.6846	3.3066
10	1.1040	1.3261	1.0869	1.1752	1.4996	1.4351	1.6452	0.7118
	2.4239	2.0232	2.4725	2.2946	1.8242	1.9094	1.6705	3.4495
11	1.2158	1.5184	1.1760	1.5310	1.2061	1.5129	1.5617	0.6026
	2.1802	1.7559	2.2932	1.8187	2.3190	1.8596	1.8032	4.1783
12	1.5784	1.2994	1.4999	1.2062	1.3566	1.5617	0.9059	
	1.6858	2.0467	1.8238	2.3187	2.1267	1.8466	2.8859	
13	1.4257	1.4366	1.4354	1.5132	1.5618	0.9586	0.4430	
	1.8766	1.8840	1.9090	1.8592	1.8465	2.7869	5.9141	
14	1.5986	1.5990	1.6455	1.5621	0.9060	0.4428		
	1.6765	1.6845	1.6701	1.8028	2.8851	5.9156		
15	0.7390	0.7388	0.7132	0.6033	F-SUB-Q			
	3.2981	3.3084	3.4451	4.1759	M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2457	1.0544	0.9934	1.0958	1.3994	1.2783	1.4132	0.6689
	2.0982	2.4688	2.5695	2.3162	1.8220	2.0077	1.8191	3.5034
9	1.0544	1.2755	1.1899	1.3485	1.1714	1.2858	1.4099	0.6689
	2.4688	2.0289	2.1523	1.8908	2.1744	2.0154	1.8309	3.5091
10	0.9934	1.1905	0.9782	1.0633	1.3343	1.2859	1.4528	0.6434
	2.5695	2.1511	2.6198	2.4221	1.9549	2.0342	1.8062	3.6604
11	1.0958	1.3487	1.0639	1.3627	1.0921	1.3396	1.3814	0.5419
	2.3162	1.8906	2.4206	1.9407	2.4328	1.9962	1.9363	4.4369
12	1.3994	1.1713	1.3345	1.0922	1.2170	1.3839	0.8175	
	1.8220	2.1746	1.9545	2.4325	2.2265	1.9616	3.0297	
13	1.2783	1.2861	1.2862	1.3399	1.3840	0.8616	0.3990	
	2.0077	2.0148	2.0338	1.9958	1.9615	2.9102	6.1918	
14	1.4133	1.4101	1.4531	1.3817	0.8175	0.3988		
	1.8191	1.8307	1.8058	1.9358	3.0291	6.1933		
15	0.6689	0.6684	0.6444	0.5425	F-SUB-Q			
	3.5034	3.5103	3.6572	4.4344	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 100 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0997	* 0.8495	* 0.7838	* 0.8752	* 1.1875	* 1.0018	* 1.1928	* 0.5420
	* 2.2843	* 2.9473	* 3.1460	* 2.8071	* 2.0771	* 2.4813	* 2.0875	* 4.1983
9	* 0.8495	* 1.0937	* 0.9450	* 1.1567	* 0.9392	* 1.0069	* 1.1910	* 0.5458
	* 2.9473	* 2.2849	* 2.6157	* 2.1330	* 2.6250	* 2.4887	* 2.0967	* 4.1711
10	* 0.7838	* 0.9455	* 0.7691	* 0.8580	* 1.1770	* 1.0098	* 1.1827	* 0.5212
	* 3.1460	* 2.6144	* 3.2182	* 2.9014	* 2.1457	* 2.5067	* 2.1378	* 4.3798
11	* 0.8752	* 1.1568	* 0.8584	* 1.1741	* 0.8826	* 1.1731	* 1.1165	* 0.4364
	* 2.8071	* 2.1327	* 2.9000	* 2.1639	* 2.8905	* 2.1898	* 2.3048	* 5.3252
12	* 1.1875	* 0.9391	* 1.1771	* 0.8827	* 0.9685	* 1.1273	* 0.6671	
	* 2.0771	* 2.6251	* 2.1453	* 2.8902	* 2.6891	* 2.3147	* 3.5785	
13	* 1.0018	* 1.0071	* 1.0100	* 1.1733	* 1.1274	* 0.6893	* 0.3191	
	* 2.4813	* 2.4882	* 2.5063	* 2.1895	* 2.3146	* 3.4943	* 7.4520	
14	* 1.1928	* 1.1911	* 1.1829	* 1.1167	* 0.6671	* 0.3190		
	* 2.0875	* 2.0965	* 2.1373	* 2.3044	* 3.5778	* 7.4537		
15	* 0.5420	* 0.5455	* 0.5217	* 0.4369	* F-SUB-Q			
	* 4.1983	* 4.1722	* 4.3781	* 5.3226	* M-SUB-Q			

AT 50% POWER, 100 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4181	* 0.3525	* 0.3313	* 0.3697	* 0.4467	* 0.3812	* 0.4181	* 0.2187
	* 5.7843	* 6.8537	* 7.2215	* 6.4553	* 5.3509	* 6.3222	* 5.7687	*10.1144
9	* 0.3525	* 0.4104	* 0.3638	* 0.4323	* 0.3861	* 0.3823	* 0.4172	* 0.2195
	* 6.8537	* 5.8638	* 6.5846	* 5.5311	* 6.1999	* 6.3493	* 5.7966	*10.0799
10	* 0.3313	* 0.3640	* 0.3255	* 0.3646	* 0.4427	* 0.3841	* 0.4118	* 0.2119
	* 7.2215	* 6.5817	* 7.3811	* 6.6247	* 5.4996	* 6.3940	* 5.9395	*10.4611
11	* 0.3697	* 0.4323	* 0.3647	* 0.4274	* 0.3736	* 0.4359	* 0.3878	* 0.1812
	* 6.4553	* 5.5305	* 6.6221	* 5.7395	* 6.6049	* 5.6869	* 6.4097	*12.4448
12	* 0.4467	* 0.3861	* 0.4428	* 0.3736	* 0.3654	* 0.3949	* 0.2664	
	* 5.3509	* 6.2000	* 5.4986	* 6.6042	* 6.8908	* 6.3861	* 8.6764	
13	* 0.3812	* 0.3823	* 0.3842	* 0.4359	* 0.3949	* 0.2719	* 0.1357	
	* 6.3222	* 6.3481	* 6.3931	* 5.6862	* 6.3858	* 8.5739	*16.9904	
14	* 0.4181	* 0.4172	* 0.4119	* 0.3879	* 0.2664	* 0.1357		
	* 5.7686	* 5.7960	* 5.9383	* 6.4085	* 8.6744	*16.9932		
15	* 0.2187	* 0.2194	* 0.2121	* 0.1813	* F-SUB-Q			
	*10.1144	*10.0802	*10.4607	*12.4411	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.3131	* 0.3519	* 0.3893	* 0.4501	* 0.5373	* 0.4578	* 0.4190	* 0.2271
	* 5.0620	* 5.9774	* 6.1182	* 5.3265	* 4.4651	* 5.1139	* 4.8551	* 8.0565
9	* 0.3519	* 0.4247	* 0.4161	* 0.5145	* 0.4719	* 0.4545	* 0.4718	* 0.2547
	* 5.9774	* 5.2807	* 5.6662	* 4.6516	* 5.0759	* 5.1806	* 4.8969	* 8.0629
10	* 0.3893	* 0.4161	* 0.3453	* 0.4211	* 0.5092	* 0.4465	* 0.4685	* 0.2499
	* 6.1182	* 5.6651	* 6.2767	* 5.6075	* 4.7036	* 5.3209	* 5.0623	* 8.4352
11	* 0.4501	* 0.5146	* 0.4211	* 0.4492	* 0.3980	* 0.4574	* 0.4258	* 0.2144
	* 5.3265	* 4.6513	* 5.6067	* 5.0595	* 5.7082	* 5.0106	* 5.6179	*10.0514
12	* 0.5373	* 0.4719	* 0.5092	* 0.3981	* 0.3071	* 0.3516	* 0.2672	*
	* 4.4651	* 5.0757	* 4.7031	* 5.7078	* 5.6371	* 5.3726	* 7.3172	*
13	* 0.4578	* 0.4545	* 0.4466	* 0.4574	* 0.3517	* 0.2147	* 0.1326	*
	* 5.1139	* 5.1804	* 5.3202	* 5.0101	* 5.3724	* 6.8455	*12.8513	*
14	* 0.4190	* 0.4719	* 0.4686	* 0.4259	* 0.2672	* 0.1326	*	*
	* 4.8551	* 4.8966	* 5.0614	* 5.6168	* 7.3154	*12.8532	*	*
15	* 0.2271	* 0.2547	* 0.2502	* 0.2146	* F-SUB-Q			
	* 8.0565	* 8.0615	* 8.4305	*10.0487	* M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.7610	* 0.8065	* 0.8736	* 1.0095	* 1.3052	* 1.1188	* 1.1255	* 0.5946
	* 2.1827	* 2.7154	* 2.8405	* 2.4700	* 1.9092	* 2.1830	* 1.9567	* 3.4696
9	* 0.8065	* 1.0621	* 1.0187	* 1.2562	* 1.0802	* 1.1119	* 1.2380	* 0.6293
	* 2.7154	* 2.2356	* 2.4229	* 1.9844	* 2.3072	* 2.1895	* 1.9572	* 3.4538
10	* 0.8736	* 1.0188	* 0.8097	* 0.9487	* 1.2411	* 1.0909	* 1.2217	* 0.6047
	* 2.8405	* 2.4226	* 2.9036	* 2.5935	* 2.0062	* 2.2581	* 2.0226	* 3.6477
11	* 1.0095	* 1.2563	* 0.9489	* 1.1377	* 0.8931	* 1.1313	* 1.0930	* 0.5056
	* 2.4700	* 1.9843	* 2.5931	* 2.0774	* 2.6210	* 2.1017	* 2.2505	* 4.4258
12	* 1.3052	* 1.0802	* 1.2413	* 0.8932	* 0.7397	* 0.9037	* 0.6482	*
	* 1.9092	* 2.3071	* 2.0060	* 2.6208	* 2.3763	* 2.1455	* 3.1122	*
13	* 1.1188	* 1.1121	* 1.0911	* 1.1315	* 0.9038	* 0.5208	* 0.3071	*
	* 2.1830	* 2.1893	* 2.2577	* 2.1015	* 2.1455	* 2.9005	* 5.7232	*
14	* 1.1255	* 1.2381	* 1.2220	* 1.0932	* 0.6483	* 0.3070	*	*
	* 1.9567	* 1.9571	* 2.0222	* 2.2501	* 3.1114	* 5.7242	*	*
15	* 0.5946	* 0.6292	* 0.6054	* 0.5060	* F-SUB-Q			
	* 3.4696	* 3.4535	* 3.6460	* 4.4244	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are numerical and include F-SUB-Q and M-SUB-Q labels.

AT 50% POWER, 175 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are numerical and include F-SUB-Q and M-SUB-Q labels.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1243	1.1656	1.2788	1.4680	1.9116	1.6990	1.9150	0.9558
	1.7321	2.1324	2.1801	1.8926	1.4550	1.6207	1.4446	2.6298
9	1.1656	1.5658	1.4998	1.8268	1.5689	1.6857	1.9004	0.9487
	2.1324	1.7477	1.8558	1.5202	1.7690	1.6364	1.4548	2.6429
10	1.2788	1.4998	1.2539	1.3883	1.7843	1.6347	1.8421	0.8885
	2.1801	1.8557	2.2154	1.9895	1.5464	1.6735	1.4924	2.8008
11	1.4680	1.8269	1.3887	1.6561	1.2984	1.6571	1.6648	0.7333
	1.8926	1.5202	1.9890	1.6081	2.0203	1.6147	1.6273	3.3733
12	1.9116	1.5689	1.7845	1.2985	1.0700	1.3530	0.9406	
	1.4550	1.7689	1.5462	2.0201	1.8228	1.6062	2.3845	
13	1.6990	1.6859	1.6351	1.6574	1.3531	0.7466	0.4374	
	1.6207	1.6363	1.6732	1.6145	1.6061	2.2610	4.4825	
14	1.9150	1.9005	1.8425	1.6652	0.9407	0.4373		
	1.4446	1.4547	1.4920	1.6270	2.3839	4.4833		
15	0.9558	0.9484	0.8897	0.7340	F-SUB-Q			
	2.6298	2.6429	2.7991	3.3719	M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1516	1.1900	1.3047	1.4935	1.9559	1.7336	1.9733	0.9830
	1.7848	2.2134	2.2395	1.9381	1.4837	1.6619	1.4680	2.6830
9	1.1900	1.5981	1.5244	1.8695	1.5965	1.7200	1.9579	0.9773
	2.2134	1.8013	1.9151	1.5490	1.8101	1.6764	1.4772	2.6901
10	1.3047	1.5245	1.2769	1.4147	1.8311	1.6710	1.8973	0.9154
	2.2395	1.9150	2.2865	2.0374	1.5620	1.6993	1.5065	2.8418
11	1.4935	1.8696	1.4151	1.7003	1.3371	1.7126	1.7183	0.7581
	1.9381	1.5489	2.0369	1.6477	2.0762	1.6343	1.6274	3.3633
12	1.9559	1.5965	1.8314	1.3373	1.1011	1.4000	0.9733	
	1.4837	1.8100	1.5618	2.0760	1.8835	1.6454	2.4323	
13	1.7336	1.7201	1.6714	1.7129	1.4002	0.7714	0.4502	
	1.6619	1.6762	1.6989	1.6340	1.6454	2.3305	4.6275	
14	1.9733	1.9580	1.8977	1.7187	0.9734	0.4501		
	1.4680	1.4771	1.5062	1.6271	2.4317	4.6284		
15	0.9830	0.9770	0.9165	0.7588	F-SUB-Q			
	2.6830	2.6901	2.8403	3.3619	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1838	1.1948	1.3113	1.5078	1.9922	1.7569	2.0203	0.9911
	1.8546	2.3169	2.3189	1.9995	1.5124	1.7060	1.4957	2.7827
9	1.1948	1.6259	1.5406	1.9047	1.6130	1.7444	2.0050	0.9850
	2.3169	1.8662	1.9713	1.5824	1.8647	1.7167	1.5006	2.7868
10	1.3113	1.5408	1.2830	1.4305	1.8714	1.6984	1.9451	0.9227
	2.3189	1.9711	2.3669	2.0976	1.5948	1.7385	1.5245	2.9185
11	1.5078	1.9048	1.4310	1.7407	1.3561	1.7623	1.7660	0.7629
	1.9995	1.5823	2.0970	1.6968	2.1514	1.6654	1.6589	3.4912
12	1.9922	1.6130	1.8717	1.3562	1.1333	1.4451	0.9882	
	1.5124	1.8647	1.5946	2.1512	1.9636	1.7009	2.5451	
13	1.7569	1.7445	1.6988	1.7627	1.4453	0.7894	0.4555	
	1.7060	1.7165	1.7381	1.6651	1.7008	2.4530	4.8915	
14	2.0203	2.0052	1.9455	1.7664	0.9883	0.4554		
	1.4957	1.5005	1.5241	1.6585	2.5444	4.8924		
15	0.9911	0.9846	0.9239	0.7636	F-SUB-Q			
	2.7827	2.7869	2.9169	3.4899	M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2080	1.1958	1.3090	1.5064	1.9992	1.7586	2.0349	0.9916
	1.9675	2.4719	2.4689	2.1248	1.5950	1.7916	1.5568	2.9085
9	1.1958	1.6320	1.5403	1.9124	1.6121	1.7477	2.0202	0.9862
	2.4719	1.9838	2.0946	1.6732	1.9793	1.8040	1.5651	2.9150
10	1.3090	1.5405	1.2812	1.4316	1.8839	1.7053	1.9637	0.9248
	2.4689	2.0943	2.5170	2.2289	1.6846	1.8354	1.5983	3.0718
11	1.5064	1.9125	1.4322	1.7569	1.3652	1.7859	1.7881	0.7655
	2.1248	1.6731	2.2282	1.7961	2.2824	1.7543	1.7469	3.6978
12	1.9992	1.6121	1.8842	1.3654	1.1608	1.4724	0.9985	
	1.5950	1.9793	1.6843	2.2822	2.0797	1.7903	2.6883	
13	1.7586	1.7479	1.7057	1.7862	1.4726	0.8062	0.4598	
	1.7916	1.8039	1.8350	1.7539	1.7902	2.6113	5.2108	
14	2.0349	2.0203	1.9641	1.7885	0.9986	0.4597		
	1.5568	1.5649	1.5980	1.7465	2.6876	5.2118		
15	0.9916	0.9858	0.9259	0.7662	F-SUB-Q			
	2.9085	2.9152	3.0701	3.6963	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2232	1.1967	1.3034	1.5027	2.0056	1.7574	2.0463	0.9868
	2.1418	2.6987	2.6905	2.3070	1.7169	1.9266	1.6617	3.1319
9	1.1967	1.6392	1.5395	1.9197	1.6091	1.7477	2.0323	0.9800
	2.6987	2.1522	2.2735	1.8057	2.1464	1.9411	1.6719	3.1452
10	1.3034	1.5398	1.2762	1.4307	1.8955	1.7094	1.9797	0.9214
	2.6905	2.2731	2.7373	2.4210	1.8149	1.9794	1.7119	3.3202
11	1.5027	1.9198	1.4312	1.7723	1.3682	1.8065	1.8073	0.7631
	2.3070	1.8056	2.4202	1.9324	2.4695	1.8852	1.8768	4.0158
12	2.0056	1.6090	1.8958	1.3683	1.1772	1.4950	1.0024	
	1.7169	2.1464	1.8146	2.4692	2.2534	1.9251	2.9155	
13	1.7574	1.7479	1.7097	1.8069	1.4952	0.8163	0.4618	
	1.9266	1.9409	1.9790	1.8849	1.9250	2.8387	5.6649	
14	2.0463	2.0324	1.9801	1.8076	1.0025	0.4617		
	1.6617	1.6718	1.7116	1.8764	2.9148	5.6660		
15	0.9868	0.9796	0.9225	0.7638	F-SUB-Q			
	3.1319	3.1455	3.3184	4.0141	M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2097	1.1905	1.2981	1.4819	1.9702	1.7313	2.0120	0.9845
	2.4018	3.0082	2.9907	2.5848	1.9268	2.1459	1.8527	3.4358
9	1.1905	1.6125	1.5179	1.8860	1.5861	1.7226	1.9992	0.9823
	3.0082	2.3997	2.5526	2.0314	2.4042	2.1632	1.8648	3.4360
10	1.2981	1.5183	1.2719	1.4171	1.8663	1.6887	1.9517	0.9255
	2.9907	2.5520	3.0476	2.7076	2.0378	2.2082	1.9125	3.6306
11	1.4819	1.8861	1.4175	1.7498	1.3714	1.7879	1.7882	0.7712
	2.5848	2.0313	2.7069	2.1425	2.7233	2.0926	2.0989	4.3756
12	1.9702	1.5861	1.8666	1.3716	1.1803	1.4871	1.0140	
	1.9268	2.4042	2.0375	2.7230	2.5150	2.1479	3.1685	
13	1.7313	1.7228	1.6891	1.7882	1.4872	0.8275	0.4691	
	2.1459	2.1630	2.2078	2.0923	2.1478	3.1291	6.2025	
14	2.0120	1.9993	1.9521	1.7886	1.0141	0.4690		
	1.8527	1.8647	1.9122	2.0985	3.1678	6.2038		
15	0.9845	0.9819	0.9266	0.7719	F-SUB-Q			
	3.4358	3.4363	3.6289	4.3739	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

CNEI-0400-379
Appendix A, Rev. 0
Page 211 of 350

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2319	* 1.1914	* 1.2909	* 1.4836	* 1.9897	* 1.7363	* 2.0365	* 0.9739
	* 2.6412	* 3.3395	* 3.3014	* 2.8252	* 2.0883	* 2.3420	* 2.0055	* 3.7926
9	* 1.1914	* 1.6358	* 1.5265	* 1.9082	* 1.5891	* 1.7292	* 2.0248	* 0.9697
	* 3.3395	* 2.6439	* 2.7892	* 2.2011	* 2.6261	* 2.3588	* 2.0174	* 3.8002
10	* 1.2909	* 1.5269	* 1.2649	* 1.4186	* 1.8932	* 1.7009	* 1.9830	* 0.9147
	* 3.3014	* 2.7886	* 3.3659	* 2.9679	* 2.2069	* 2.4045	* 2.0649	* 4.0098
11	* 1.4836	* 1.9084	* 1.4192	* 1.7808	* 1.3717	* 1.8259	* 1.8232	* 0.7611
	* 2.8252	* 2.2010	* 2.9668	* 2.3552	* 3.0171	* 2.2754	* 2.2614	* 4.8450
12	* 1.9897	* 1.5890	* 1.8935	* 1.3718	* 1.1962	* 1.5228	* 1.0136	
	* 2.0883	* 2.6262	* 2.2066	* 3.0168	* 2.7633	* 2.3417	* 3.5427	
13	* 1.7363	* 1.7294	* 1.7012	* 1.8262	* 1.5229	* 0.8333	* 0.4685	
	* 2.3420	* 2.3585	* 2.4041	* 2.2750	* 2.3416	* 3.4882	* 6.9430	
14	* 2.0365	* 2.0250	* 1.9834	* 1.8235	* 1.0136	* 0.4684		
	* 2.0055	* 2.0172	* 2.0645	* 2.2610	* 3.5420	* 6.9445		
15	* 0.9739	* 0.9693	* 0.9158	* 0.7618	* F-SUB-Q			
	* 3.7926	* 3.8006	* 4.0078	* 4.8429	* M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2516	* 1.1988	* 1.2891	* 1.4773	* 1.9836	* 1.7272	* 2.0322	* 0.9680
	* 2.6973	* 3.4014	* 3.5764	* 3.0792	* 2.3017	* 2.5854	* 2.2064	* 4.1781
9	* 1.1988	* 1.6435	* 1.5256	* 1.9064	* 1.5821	* 1.7218	* 2.0221	* 0.9653
	* 3.4014	* 2.6929	* 3.0349	* 2.4073	* 2.8774	* 2.6033	* 2.2190	* 4.1811
10	* 1.2891	* 1.5260	* 1.2637	* 1.4181	* 1.8976	* 1.7009	* 1.9882	* 0.9128
	* 3.5764	* 3.0340	* 3.6580	* 3.2511	* 2.4266	* 2.6519	* 2.2695	* 4.4089
11	* 1.4773	* 1.9065	* 1.4187	* 1.7951	* 1.3811	* 1.8447	* 1.8390	* 0.7631
	* 3.0792	* 2.4071	* 3.2499	* 2.4459	* 3.1539	* 2.4191	* 2.4653	* 5.3304
12	* 1.9836	* 1.5821	* 1.8979	* 1.3813	* 1.2201	* 1.5516	* 1.0275	
	* 2.3017	* 2.8775	* 2.4263	* 3.1535	* 2.9410	* 2.4936	* 3.7723	
13	* 1.7272	* 1.7220	* 1.7012	* 1.8450	* 1.5517	* 0.8545	* 0.4776	
	* 2.5854	* 2.6030	* 2.6515	* 2.4188	* 2.4935	* 3.7315	* 7.4794	
14	* 2.0322	* 2.0222	* 1.9886	* 1.8394	* 1.0276	* 0.4774		
	* 2.2064	* 2.2188	* 2.2691	* 2.4649	* 3.7715	* 7.4810		
15	* 0.9680	* 0.9649	* 0.9139	* 0.7638	* F-SUB-Q			
	* 4.1780	* 4.1817	* 4.4067	* 5.3284	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values range from approximately 0.7741 to 5.3095. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the table.

AT 50% POWER, 175 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values range from approximately 0.5157 to 5.2298. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the table.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 10 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6607	1.3203	1.2959	1.4688	1.9803	1.7081	2.0310	0.9474
	2.3473	2.9686	3.0890	2.6820	2.0017	2.2975	1.9579	3.7574
9	1.3203	1.7232	1.5453	1.9187	1.5718	1.7202	2.0275	0.9447
	2.9686	2.3401	2.6094	2.0800	2.5138	2.3158	1.9712	3.7676
10	1.2959	1.5458	1.2721	1.4366	1.9461	1.7246	2.0272	0.9056
	3.0890	2.6085	3.1624	2.8167	2.1200	2.3629	2.0214	3.9758
11	1.4688	1.9188	1.4373	1.9106	1.4661	1.9597	1.9340	0.7698
	2.6820	2.0798	2.8155	2.1482	2.7906	2.1237	2.1636	4.8342
12	1.9803	1.5717	1.9463	1.4663	1.5218	1.8350	1.1123	
	2.0017	2.5139	2.1197	2.7903	2.6012	2.1852	3.3376	
13	1.7081	1.7205	1.7250	1.9600	1.8351	1.0828	0.5368	
	2.2975	2.3154	2.3626	2.1234	2.1852	3.3064	6.6218	
14	2.0310	2.0276	2.0276	1.9343	1.1124	0.5366		
	1.9579	1.9710	2.0211	2.1633	3.3369	6.6233		
15	0.9474	0.9441	0.9066	0.7705	F-SUB-Q			
	3.7574	3.7684	3.9739	4.8321	M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 9 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7362	1.3611	1.2973	1.4608	1.9692	1.6949	2.0174	0.9401
	2.1617	2.7342	2.7992	2.4400	1.8192	2.0934	1.7813	3.4267
9	1.3611	1.7466	1.5454	1.9116	1.5628	1.7120	2.0165	0.9405
	2.7342	2.1530	2.3674	1.8890	2.2874	2.1092	1.7925	3.4248
10	1.2973	1.5460	1.2729	1.4363	1.9572	1.7294	2.0256	0.9035
	2.7992	2.3665	2.8652	2.5585	1.9244	2.1463	1.8336	3.6127
11	1.4608	1.9117	1.4369	1.9335	1.4837	1.9790	1.9488	0.7731
	2.4400	1.8889	2.5574	1.9750	2.5692	1.9523	1.9873	4.3785
12	1.9692	1.5627	1.9575	1.4839	1.5902	1.8983	1.1357	
	1.8192	2.2875	1.9241	2.5689	2.4032	2.0161	3.0699	
13	1.6949	1.7123	1.7298	1.9793	1.8983	1.1339	0.5532	
	2.0934	2.1089	2.1460	1.9521	2.0160	3.0550	6.1279	
14	2.0174	2.0168	2.0259	1.9491	1.1357	0.5530		
	1.7813	1.7924	1.8333	1.9870	3.0693	6.1293		
15	0.9401	0.9400	0.9045	0.7737	F-SUB-Q			
	3.4268	3.4255	3.6111	4.3768	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7408	1.3664	1.2937	1.4423	1.9347	1.6684	1.9801	0.9325
	2.1692	2.7342	2.7718	2.4374	1.8245	2.0971	1.7885	3.4108
9	1.3664	1.7384	1.5299	1.8811	1.5418	1.6888	1.9834	0.9354
	2.7342	2.1610	2.3608	1.8924	2.2866	2.1119	1.7987	3.4000
10	1.2937	1.5306	1.2742	1.4252	1.9365	1.7141	1.9968	0.9020
	2.7718	2.3599	2.8368	2.5520	1.9267	2.1423	1.8347	3.5745
11	1.4423	1.8812	1.4257	1.9193	1.4791	1.9634	1.9330	0.7770
	2.4374	1.8922	2.5511	1.9835	2.5717	1.9607	1.9905	4.3083
12	1.9347	1.5417	1.9367	1.4792	1.6015	1.9031	1.1494	
	1.8245	2.2867	1.9264	2.5714	2.4085	2.0246	3.0408	
13	1.6684	1.6891	1.7145	1.9637	1.9031	1.1565	0.5633	
	2.0971	2.1116	2.1420	1.9604	2.0245	3.0326	6.0839	
14	1.9801	1.9836	1.9971	1.9333	1.1494	0.5632		
	1.7885	1.7986	1.8344	1.9902	3.0402	6.0853		
15	0.9325	0.9349	0.9030	0.7777	F-SUB-Q			
	3.4108	3.4006	3.5731	4.3065	M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7598	1.3689	1.2758	1.4323	1.9366	1.6583	1.9838	0.9108
	1.9884	2.5298	2.5867	2.2604	1.6783	1.9444	1.6446	3.2224
9	1.3689	1.7544	1.5275	1.8862	1.5318	1.6815	1.9900	0.9123
	2.5298	1.9687	2.1753	1.7368	2.1197	1.9568	1.6528	3.2259
10	1.2758	1.5281	1.2529	1.4193	1.9469	1.7134	2.0067	0.8798
	2.5867	2.1744	2.6505	2.3604	1.7661	1.9772	1.6798	3.3799
11	1.4323	1.8864	1.4199	1.9325	1.4762	1.9798	1.9483	0.7554
	2.2604	1.7366	2.3592	1.8059	2.3655	1.7808	1.8070	4.0824
12	1.9366	1.5317	1.9472	1.4763	1.6126	1.9283	1.1311	
	1.6783	2.1198	1.7658	2.3652	2.2177	1.8576	2.8571	
13	1.6583	1.6818	1.7137	1.9801	1.9283	1.1458	0.5527	
	1.9444	1.9565	1.9769	1.7806	1.8576	2.8454	5.7822	
14	1.9838	1.9903	2.0071	1.9487	1.1312	0.5525		
	1.6446	1.6527	1.6795	1.8067	2.8564	5.7836		
15	0.9108	0.9116	0.8808	0.7561	F-SUB-Q			
	3.2224	3.2267	3.3783	4.0805	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7284	* 1.3448	* 1.2501	* 1.4014	* 1.8949	* 1.6220	* 1.9405	* 0.8874
	* 1.8507	* 2.3599	* 2.4491	* 2.1484	* 1.5951	* 1.8511	* 1.5650	* 3.0854
9	* 1.3448	* 1.7235	* 1.4987	* 1.8467	* 1.4987	* 1.6461	* 1.9480	* 0.8897
	* 2.3599	* 1.8484	* 2.0553	* 1.6474	* 2.0148	* 1.8579	* 1.5717	* 3.0878
10	* 1.2501	* 1.4993	* 1.2274	* 1.3899	* 1.9067	* 1.6791	* 1.9658	* 0.8584
	* 2.4491	* 2.0543	* 2.5080	* 2.2364	* 1.6716	* 1.8729	* 1.5912	* 3.2256
11	* 1.4014	* 1.8469	* 1.3904	* 1.8952	* 1.4466	* 1.9408	* 1.9119	* 0.7372
	* 2.1484	* 1.6473	* 2.2354	* 1.7036	* 2.2342	* 1.6833	* 1.7013	* 3.8828
12	* 1.8949	* 1.4986	* 1.9070	* 1.4467	* 1.5861	* 1.8963	* 1.1081	*
	* 1.5951	* 2.0149	* 1.6713	* 2.2340	* 2.0716	* 1.7359	* 2.6923	*
13	* 1.6220	* 1.6464	* 1.6795	* 1.9411	* 1.8964	* 1.1262	* 0.5413	*
	* 1.8511	* 1.8576	* 1.8727	* 1.6831	* 1.7358	* 2.6705	* 5.4470	*
14	* 1.9405	* 1.9482	* 1.9661	* 1.9122	* 1.1082	* 0.5411	*	*
	* 1.5650	* 1.5716	* 1.5910	* 1.7010	* 2.6917	* 5.4483	*	*
15	* 0.8874	* 0.8890	* 0.8594	* 0.7379	* F-SUB-Q			
	* 3.0854	* 3.0885	* 3.2240	* 3.8809	* M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6403	* 1.2911	* 1.2123	* 1.3434	* 1.7980	* 1.5524	* 1.8376	* 0.8590
	* 1.8260	* 2.3064	* 2.3648	* 2.1054	* 1.5795	* 1.8200	* 1.5544	* 3.0057
9	* 1.2911	* 1.6380	* 1.4374	* 1.7514	* 1.4359	* 1.5751	* 1.8450	* 0.8622
	* 2.3064	* 1.8140	* 2.0041	* 1.6293	* 1.9754	* 1.8230	* 1.5599	* 2.9932
10	* 1.2123	* 1.4380	* 1.1934	* 1.3318	* 1.8046	* 1.6042	* 1.8622	* 0.8351
	* 2.3648	* 2.0031	* 2.4214	* 2.1830	* 1.6486	* 1.8328	* 1.5736	* 3.1188
11	* 1.3434	* 1.7515	* 1.3323	* 1.7979	* 1.3851	* 1.8342	* 1.8117	* 0.7201
	* 2.1054	* 1.6292	* 2.1821	* 1.6703	* 2.1748	* 1.6513	* 1.6656	* 3.7224
12	* 1.7980	* 1.4358	* 1.8049	* 1.3852	* 1.5187	* 1.7989	* 1.0785	*
	* 1.5795	* 1.9755	* 1.6483	* 2.1745	* 2.0244	* 1.7127	* 2.5994	*
13	* 1.5524	* 1.5754	* 1.6045	* 1.8344	* 1.7990	* 1.0973	* 0.5293	*
	* 1.8200	* 1.8227	* 1.8326	* 1.6511	* 1.7126	* 2.5637	* 5.2259	*
14	* 1.8376	* 1.8452	* 1.8625	* 1.8120	* 1.0785	* 0.5291	*	*
	* 1.5544	* 1.5597	* 1.5733	* 1.6653	* 2.5990	* 5.2272	*	*
15	* 0.8590	* 0.8617	* 0.8360	* 0.7207	* F-SUB-Q			
	* 3.0057	* 2.9938	* 3.1175	* 3.7208	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5587	1.2312	1.1454	1.2779	1.7077	1.4797	1.7433	0.8058
	1.8018	2.2585	2.3673	2.1007	1.5791	1.8156	1.5575	3.0535
9	1.2312	1.5596	1.3737	1.6643	1.3673	1.5011	1.7501	0.8074
	2.2585	1.7813	1.9812	1.6252	1.9690	1.8146	1.5621	3.0526
10	1.1454	1.3744	1.1266	1.2660	1.7107	1.5269	1.7694	0.7799
	2.3673	1.9801	2.4159	2.1682	1.6389	1.8202	1.5696	3.1741
11	1.2779	1.6645	1.2664	1.7076	1.3146	1.7345	1.7169	0.6684
	2.1007	1.6250	2.1672	1.6460	2.1433	1.6386	1.6538	3.7933
12	1.7077	1.3672	1.7109	1.3147	1.4486	1.7077	1.0065	
	1.5791	1.9691	1.6387	2.1431	2.0019	1.6960	2.6020	
13	1.4797	1.5014	1.5272	1.7348	1.7078	1.0317	0.4945	
	1.8156	1.8142	1.8200	1.6384	1.6959	2.5851	5.2899	
14	1.7433	1.7503	1.7697	1.7172	1.0065	0.4943		
	1.5575	1.5620	1.5694	1.6535	2.6015	5.2913		
15	0.8058	0.8067	0.7808	0.6690	F-SUB-Q			
	3.0535	3.0533	3.1725	3.7916	M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3878	1.1175	1.0336	1.1566	1.5176	1.3344	1.5423	0.7299
	1.9110	2.3595	2.5122	2.2280	1.7060	1.9356	1.6921	3.2484
9	1.1175	1.3883	1.2419	1.4787	1.2363	1.3528	1.5470	0.7310
	2.3595	1.9048	2.0956	1.7539	2.0898	1.9316	1.6964	3.2487
10	1.0336	1.2426	1.0219	1.1455	1.5185	1.3744	1.5682	0.7056
	2.5122	2.0945	2.5483	2.2895	1.7605	1.9346	1.6974	3.3731
11	1.1566	1.4788	1.1459	1.5177	1.1896	1.5322	1.5200	0.6017
	2.2280	1.7537	2.2886	1.7656	2.2568	1.7685	1.7816	4.0357
12	1.5176	1.2363	1.5187	1.1897	1.3069	1.5143	0.9074	
	1.7060	2.0899	1.7603	2.2565	2.0945	1.8101	2.7458	
13	1.3344	1.3530	1.3747	1.5324	1.5143	0.9326	0.4473	
	1.9356	1.9313	1.9343	1.7684	1.8101	2.6975	5.5420	
14	1.5423	1.5472	1.5684	1.5202	0.9074	0.4472		
	1.6921	1.6963	1.6971	1.7814	2.7453	5.5435		
15	0.7299	0.7305	0.7064	0.6023	F-SUB-Q			
	3.2484	3.2498	3.3715	4.0337	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 175 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1586	0.8953	0.8217	0.9204	1.2362	1.0506	1.2532	0.5866
	2.2066	2.8418	3.0580	2.7135	2.0289	2.3846	2.0203	3.9304
9	0.8953	1.1460	0.9880	1.2135	0.9871	1.0620	1.2552	0.5916
	2.8418	2.2271	2.5485	2.0697	2.5368	2.3831	2.0253	3.8970
10	0.8217	0.9885	0.8103	0.9182	1.2587	1.0822	1.2552	0.5673
	3.0580	2.5472	3.1099	2.7618	2.0454	2.3738	2.0464	4.0737
11	0.9204	1.2136	0.9185	1.2517	0.9524	1.2637	1.2095	0.4815
	2.7135	2.0695	2.7608	2.0612	2.7163	2.0634	2.1597	4.8852
12	1.2362	0.9870	1.2589	0.9525	1.0420	1.2167	0.7293	
	2.0289	2.5369	2.0452	2.7161	2.5299	2.1699	3.3015	
13	1.0506	1.0622	1.0824	1.2638	1.2167	0.7461	0.3576	
	2.3846	2.3827	2.3735	2.0632	2.1698	3.2480	6.6922	
14	1.2532	1.2553	1.2554	1.2097	0.7292	0.3575		
	2.0203	2.0252	2.0461	2.1594	3.3010	6.6938		
15	0.5866	0.5913	0.5678	0.4820	F-SUB-Q			
	3.9304	3.8980	4.0725	4.8831	M-SUB-Q			

AT 50% POWER, 175 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.4489	0.3777	0.3554	0.3955	0.4772	0.4095	0.4526	0.2398
	5.5114	6.5199	6.8699	6.1413	5.1048	5.9376	5.4284	9.3581
9	0.3777	0.4390	0.3893	0.4648	0.4133	0.4131	0.4525	0.2412
	6.5199	5.6005	6.2761	5.2451	5.8889	5.9429	5.4436	9.3039
10	0.3554	0.3895	0.3513	0.3954	0.4821	0.4199	0.4506	0.2339
	6.8699	6.2734	6.9719	6.2237	5.1530	5.9203	5.5252	9.6105
11	0.3955	0.4649	0.3955	0.4661	0.4084	0.4795	0.4303	0.2026
	6.1413	5.2446	6.2219	5.3536	6.1344	5.2563	5.8735	11.2845
12	0.4772	0.4133	0.4821	0.4084	0.4026	0.4380	0.2951	
	5.1048	5.8890	5.1524	6.1339	6.3460	5.8418	7.9184	
13	0.4095	0.4132	0.4200	0.4795	0.4380	0.3005	0.1543	
	5.9376	5.9421	5.9198	5.2559	5.8417	7.8206	15.0797	
14	0.4526	0.4525	0.4506	0.4304	0.2951	0.1542		
	5.4284	5.4433	5.5245	5.8726	7.9170	15.0824		
15	0.2398	0.2411	0.2340	0.2027	F-SUB-Q			
	9.3581	9.3044	9.6106	11.2819	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.3195	* 0.3566	* 0.3972	* 0.4631	* 0.5505	* 0.4614	* 0.4013	* 0.2118
	* 4.8377	* 5.6404	* 5.7350	* 4.9941	* 4.2592	* 4.7620	* 4.5638	* 7.4183
9	* 0.3566	* 0.4220	* 0.4188	* 0.5277	* 0.4865	* 0.4689	* 0.4781	* 0.2616
	* 5.6404	* 5.0850	* 5.3113	* 4.4362	* 4.7469	* 4.8024	* 4.5963	* 7.4256
10	* 0.3972	* 0.4188	* 0.3368	* 0.4337	* 0.5335	* 0.4704	* 0.4914	* 0.2599
	* 5.7349	* 5.3102	* 5.8423	* 5.2162	* 4.4435	* 4.9008	* 4.7212	* 7.7419
11	* 0.4631	* 0.5277	* 0.4337	* 0.4681	* 0.4269	* 0.4947	* 0.4619	* 0.2349
	* 4.9941	* 4.4359	* 5.2156	* 4.8027	* 5.3125	* 4.6526	* 5.0256	* 8.9326
12	* 0.5505	* 0.4865	* 0.5335	* 0.4269	* 0.3285	* 0.3904	* 0.2965	
	* 4.2592	* 4.7467	* 4.4431	* 5.3121	* 5.1997	* 5.0321	* 6.8121	
13	* 0.4614	* 0.4690	* 0.4704	* 0.4948	* 0.3904	* 0.2416	* 0.1534	
	* 4.7620	* 4.8020	* 4.9002	* 4.6521	* 5.0320	* 6.3505	* 11.5897	
14	* 0.4013	* 0.4782	* 0.4915	* 0.4620	* 0.2966	* 0.1534		
	* 4.5638	* 4.5961	* 4.7205	* 5.0248	* 6.8114	* 11.5900		
15	* 0.2118	* 0.2616	* 0.2603	* 0.2351	* F-SUB-Q			
	* 7.4183	* 7.4244	* 7.7378	* 8.9291	* M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.7495	* 0.7914	* 0.8641	* 1.0100	* 1.2909	* 1.0866	* 0.9925	* 0.5121
	* 2.1707	* 2.6444	* 2.7570	* 2.3919	* 1.8921	* 2.0969	* 1.9088	* 3.2929
9	* 0.7914	* 1.0032	* 0.9890	* 1.2442	* 1.0820	* 1.1000	* 1.2059	* 0.6176
	* 2.6444	* 2.2308	* 2.3553	* 1.9652	* 2.2300	* 2.1003	* 1.9097	* 3.2808
10	* 0.8641	* 0.9891	* 0.7318	* 0.9483	* 1.2563	* 1.1100	* 1.2362	* 0.6158
	* 2.7570	* 2.3550	* 2.8055	* 2.4905	* 1.9668	* 2.1460	* 1.9586	* 3.4538
11	* 1.0100	* 1.2442	* 0.9485	* 1.1448	* 0.9324	* 1.1855	* 1.1540	* 0.5384
	* 2.3919	* 1.9651	* 2.4902	* 2.0414	* 2.5109	* 2.0381	* 2.0958	* 4.0995
12	* 1.2909	* 1.0820	* 1.2564	* 0.9325	* 0.7691	* 0.9693	* 0.6982	
	* 1.8921	* 2.2298	* 1.9666	* 2.5108	* 2.2735	* 2.0816	* 2.9806	
13	* 1.0866	* 1.1001	* 1.1102	* 1.1857	* 0.9694	* 0.5649	* 0.3443	
	* 2.0969	* 2.1002	* 2.1457	* 2.0378	* 2.0816	* 2.7908	* 5.3130	
14	* 0.9925	* 1.2061	* 1.2364	* 1.1542	* 0.6983	* 0.3442		
	* 1.9088	* 1.9096	* 1.9583	* 2.0955	* 2.9803	* 5.3133		
15	* 0.5121	* 0.6175	* 0.6167	* 0.5388	* F-SUB-Q			
	* 3.2929	* 3.2806	* 3.4523	* 4.0976	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.9275	0.9829	1.0809	1.2555	1.5827	1.3625	1.3272	0.7052
	1.8775	2.2309	2.2993	2.0009	1.6041	1.7304	1.5992	2.7006
9	0.9829	1.2431	1.2363	1.5229	1.3389	1.3869	1.5038	0.7915
	2.2309	1.9060	1.9773	1.6709	1.8739	1.7412	1.6072	2.7071
10	1.0809	1.2364	0.9760	1.1835	1.5245	1.3923	1.5286	0.7748
	2.2993	1.9771	2.3242	2.0856	1.6807	1.7783	1.6477	2.8508
11	1.2555	1.5229	1.1837	1.3945	1.1558	1.4381	1.4271	0.6773
	2.0009	1.6708	2.0852	1.7468	2.1022	1.7353	1.7538	3.3744
12	1.5827	1.3389	1.5247	1.1559	0.9521	1.1883	0.8715	
	1.6041	1.8738	1.6806	2.1020	1.9243	1.7568	2.4543	
13	1.3625	1.3870	1.3925	1.4383	1.1884	0.6944	0.4286	
	1.7304	1.7411	1.7781	1.7351	1.7568	2.3388	4.3845	
14	1.3272	1.5039	1.5289	1.4274	0.8715	0.4285		
	1.5992	1.6071	1.6474	1.7535	2.4540	4.3848		
15	0.7052	0.7914	0.7758	0.6778	F-SUB-Q			
	2.7006	2.7069	2.8495	3.3727	M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0599	1.0931	1.2031	1.3992	1.8180	1.5438	1.7087	0.8610
	1.7163	2.1033	2.1762	1.8790	1.4626	1.6068	1.4392	2.5515
9	1.0931	1.4573	1.4001	1.7508	1.4948	1.5779	1.7776	0.8909
	2.1033	1.7449	1.8519	1.5239	1.7567	1.6189	1.4473	2.5661
10	1.2031	1.4002	1.1482	1.3292	1.7486	1.5706	1.7772	0.8631
	2.1762	1.8517	2.1894	1.9562	1.5283	1.6485	1.4855	2.7125
11	1.3992	1.7508	1.3295	1.6110	1.2801	1.6565	1.6380	0.7390
	1.8790	1.5238	1.9558	1.5915	1.9665	1.5534	1.5750	3.2037
12	1.8180	1.4948	1.7488	1.2802	1.0577	1.3540	0.9533	
	1.4626	1.7566	1.5281	1.9663	1.7945	1.5906	2.3230	
13	1.5438	1.5781	1.5709	1.6568	1.3541	0.7557	0.4605	
	1.6068	1.6188	1.6483	1.5531	1.5905	2.2252	4.2210	
14	1.7087	1.7778	1.7775	1.6382	0.9534	0.4604		
	1.4392	1.4472	1.4852	1.5747	2.3228	4.2213		
15	0.8610	0.8905	0.8642	0.7397	F-SUB-Q			
	2.5515	2.5661	2.7110	3.2019	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1173	1.1416	1.2634	1.4619	1.9276	1.6678	1.9253	0.9629
	1.7139	2.1300	2.1932	1.8916	1.4570	1.6153	1.4229	2.5573
9	1.1416	1.5574	1.4741	1.8534	1.5627	1.6683	1.9246	0.9613
	2.1300	1.7460	1.8692	1.5158	1.7672	1.6271	1.4310	2.5654
10	1.2634	1.4742	1.2370	1.3971	1.8486	1.6493	1.8967	0.9177
	2.1932	1.8691	2.2220	1.9642	1.5131	1.6481	1.4647	2.7137
11	1.4619	1.8535	1.3975	1.7122	1.3433	1.7588	1.7357	0.7770
	1.8916	1.5157	1.9638	1.5836	1.9748	1.5165	1.5375	3.1684
12	1.9276	1.5628	1.8488	1.3434	1.1066	1.4297	0.9982	
	1.4570	1.7671	1.5130	1.9747	1.8034	1.5759	2.3176	
13	1.6678	1.6685	1.6496	1.7590	1.4298	0.7850	0.4761	
	1.6153	1.6270	1.6478	1.5163	1.5759	2.2385	4.2654	
14	1.9253	1.9247	1.8971	1.7360	0.9983	0.4760		
	1.4229	1.4309	1.4645	1.5373	2.3174	4.2658		
15	0.9629	0.9609	0.9188	0.7777	F-SUB-Q			
	2.5573	2.5655	2.7123	3.1668	M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1370	1.1655	1.2886	1.4829	1.9674	1.7132	2.0027	1.0053
	1.7821	2.2264	2.2732	1.9571	1.5055	1.6729	1.4631	2.6361
9	1.1655	1.5910	1.4989	1.8901	1.5858	1.7071	1.9935	1.0032
	2.2264	1.8156	1.9485	1.5618	1.8269	1.6844	1.4702	2.6371
10	1.2886	1.4990	1.2683	1.4212	1.8851	1.6784	1.9462	0.9468
	2.2732	1.9483	2.3067	2.0270	1.5447	1.6926	1.4966	2.7821
11	1.4829	1.8901	1.4216	1.7499	1.3719	1.7988	1.7756	0.7979
	1.9571	1.5617	2.0265	1.6368	2.0228	1.5466	1.5674	3.2200
12	1.9675	1.5858	1.8853	1.3721	1.1264	1.4588	1.0208	
	1.5055	1.8268	1.5445	2.0226	1.8766	1.6286	2.3825	
13	1.7132	1.7073	1.6787	1.7990	1.4589	0.7979	0.4836	
	1.6729	1.6843	1.6923	1.5464	1.6286	2.3250	4.4327	
14	2.0027	1.9936	1.9465	1.7759	1.0208	0.4835		
	1.4631	1.4702	1.4963	1.5671	2.3823	4.4331		
15	1.0053	1.0029	0.9479	0.7986	F-SUB-Q			
	2.6361	2.6371	2.7807	3.2184	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 18 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1505	1.1638	1.2899	1.4897	1.9939	1.7348	2.0492	1.0156
	1.8689	2.3509	2.3749	2.0379	1.5481	1.7356	1.5074	2.7630
9	1.1638	1.6120	1.5093	1.9150	1.5943	1.7264	2.0371	1.0123
	2.3509	1.8975	2.0220	1.6112	1.8995	1.7383	1.5102	2.7598
10	1.2899	1.5095	1.2708	1.4298	1.9116	1.6943	1.9829	0.9511
	2.3749	2.0217	2.4076	2.1075	1.5939	1.7498	1.5308	2.8852
11	1.4897	1.9151	1.4302	1.7768	1.3773	1.8313	1.8078	0.7971
	2.0379	1.6111	2.1070	1.6979	2.1188	1.5960	1.6164	3.3727
12	1.9939	1.5943	1.9118	1.3774	1.1343	1.4822	1.0233	
	1.5481	1.8995	1.5937	2.1186	1.9728	1.6981	2.5096	
13	1.7348	1.7266	1.6946	1.8315	1.4823	0.7990	0.4821	
	1.7356	1.7381	1.7495	1.5958	1.6981	2.4640	4.7169	
14	2.0492	2.0372	1.9832	1.8081	1.0233	0.4819		
	1.5074	1.5102	1.5305	1.6162	2.5094	4.7174		
15	1.0156	1.0119	0.9522	0.7978	F-SUB-Q			
	2.7630	2.7600	2.8838	3.3710	M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1561	1.1570	1.2812	1.4798	1.9879	1.7295	2.0548	1.0133
	1.9907	2.5159	2.5446	2.1670	1.6451	1.8336	1.5802	2.9054
9	1.1570	1.6090	1.5013	1.9106	1.5840	1.7209	2.0421	1.0102
	2.5159	2.0250	2.1623	1.7084	2.0188	1.8444	1.5866	2.9052
10	1.2812	1.5015	1.2621	1.4222	1.9096	1.6890	1.9868	0.9481
	2.5446	2.1619	2.5769	2.2417	1.6743	1.8488	1.6136	3.0585
11	1.4798	1.9107	1.4227	1.7778	1.3735	1.8371	1.8135	0.7938
	2.1670	1.7084	2.2411	1.8054	2.2540	1.6885	1.7080	3.5570
12	1.9879	1.5840	1.9098	1.3736	1.1391	1.4891	1.0222	
	1.6451	2.0188	1.6742	2.2538	2.1000	1.7974	2.6679	
13	1.7295	1.7210	1.6893	1.8373	1.4892	0.8016	0.4804	
	1.8336	1.8442	1.8485	1.6883	1.7973	2.6343	5.0441	
14	2.0548	2.0422	1.9871	1.8138	1.0222	0.4803		
	1.5802	1.5865	1.6134	1.7077	2.6677	5.0446		
15	1.0133	1.0098	0.9492	0.7944	F-SUB-Q			
	2.9054	2.9054	3.0570	3.5552	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 16 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1722	1.1504	1.2680	1.4667	1.9794	1.7180	2.0532	1.0033
	2.1704	2.7518	2.7289	2.3225	1.7478	1.9760	1.6960	3.1432
9	1.1504	1.6066	1.4916	1.9039	1.5704	1.7095	2.0406	0.9984
	2.7518	2.2016	2.3133	1.8195	2.1611	1.9659	1.6976	3.1504
10	1.2680	1.4919	1.2492	1.4119	1.9064	1.6799	1.9866	0.9382
	2.7289	2.3128	2.7719	2.3990	1.7886	1.9694	1.7052	3.2709
11	1.4667	1.9040	1.4123	1.7786	1.3647	1.8411	1.8170	0.7844
	2.3225	1.8194	2.3984	1.9284	2.4405	1.8111	1.8295	3.8368
12	1.9794	1.5704	1.9066	1.3648	1.1503	1.4992	1.0163	
	1.7478	2.1612	1.7884	2.4402	2.2845	1.9415	2.9060	
13	1.7180	1.7097	1.6801	1.8413	1.4993	0.8057	0.4777	
	1.9760	1.9657	1.9691	1.8109	1.9414	2.8749	5.5061	
14	2.0532	2.0407	1.9869	1.8172	1.0163	0.4776		
	1.6960	1.6975	1.7049	1.8292	2.9058	5.5066		
15	1.0033	0.9980	0.9393	0.7850	F-SUB-Q			
	3.1432	3.1506	3.2694	3.8349	M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1643	1.1434	1.2570	1.4381	1.9311	1.6827	2.0062	0.9951
	2.4454	3.0785	2.9860	2.5676	1.9314	2.1478	1.8446	3.3687
9	1.1434	1.5723	1.4624	1.8592	1.5388	1.6745	1.9943	0.9951
	3.0785	2.4481	2.5568	2.0195	2.3884	2.1549	1.8500	3.3561
10	1.2570	1.4627	1.2387	1.3910	1.8636	1.6482	1.9438	0.9377
	2.9860	2.5562	3.0234	2.6506	1.9897	2.1714	1.8809	3.5082
11	1.4381	1.8592	1.3914	1.7438	1.3583	1.8063	1.7826	0.7869
	2.5676	2.0194	2.6500	2.1496	2.6807	2.0157	2.0324	4.1515
12	1.9311	1.5388	1.8638	1.3584	1.1537	1.4791	1.0192	
	1.9314	2.3884	1.9895	2.6805	2.5592	2.1752	3.1714	
13	1.6827	1.6747	1.6485	1.8065	1.4792	0.8145	0.4811	
	2.1478	2.1547	2.1711	2.0155	2.1752	3.1721	6.0402	
14	2.0062	1.9944	1.9441	1.7828	1.0193	0.4810		
	1.8446	1.8499	1.8806	2.0321	3.1712	6.0408		
15	0.9951	0.9947	0.9390	0.7875	F-SUB-Q			
	3.3687	3.3564	3.5059	4.1495	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1761	1.1325	1.2406	1.4298	1.9355	1.6756	2.0152	0.9785
	2.6754	3.3973	3.3540	2.8580	2.1242	2.3598	2.0046	3.7257
9	1.1325	1.5831	1.4604	1.8666	1.5306	1.6682	2.0040	0.9763
	3.3973	2.7006	2.8379	2.2274	2.6556	2.3765	2.0144	3.7244
10	1.2406	1.4608	1.2223	1.3810	1.8738	1.6457	1.9570	0.9185
	3.3540	2.8371	3.3964	2.9565	2.1898	2.3997	2.0600	3.9291
11	1.4298	1.8666	1.3814	1.7577	1.3450	1.8252	1.8009	0.7705
	2.8580	2.2273	2.9558	2.3712	3.0096	2.2159	2.2307	4.6652
12	1.9355	1.5305	1.8740	1.3451	1.1542	1.4990	1.0075	
	2.1242	2.6556	2.1896	3.0093	2.8175	2.3766	3.5526	
13	1.6756	1.6683	1.6459	1.8254	1.4990	0.8104	0.4745	
	2.3598	2.3763	2.3994	2.2156	2.3765	3.5510	6.7838	
14	2.0152	2.0041	1.9573	1.8012	1.0075	0.4744		
	2.0046	2.0143	2.0597	2.2303	3.5524	6.7845		
15	0.9785	0.9759	0.9195	0.7711	F-SUB-Q			
	3.7257	3.7248	3.9275	4.6629	M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1772	1.1276	1.2312	1.4156	1.9177	1.6572	1.9985	0.9676
	2.7213	3.4489	3.6719	3.1547	2.3801	2.6635	2.2552	4.1934
9	1.1276	1.5770	1.4499	1.8531	1.5149	1.6505	1.9883	0.9663
	3.4489	2.7408	3.1222	2.4705	2.9498	2.6820	2.2656	4.1890
10	1.2312	1.4503	1.2132	1.3702	1.8626	1.6328	1.9464	0.9107
	3.6719	3.1212	3.7251	3.2787	2.4357	2.7095	2.3157	4.4146
11	1.4156	1.8532	1.3706	1.7527	1.3395	1.8229	1.7985	0.7658
	3.1547	2.4704	3.2781	2.4668	3.1589	2.4116	2.4780	5.2660
12	1.9177	1.5148	1.8628	1.3396	1.1559	1.5032	1.0074	
	2.3801	2.9499	2.4355	3.1587	2.9721	2.5087	3.7466	
13	1.6572	1.6507	1.6330	1.8231	1.5033	0.8138	0.4752	
	2.6635	2.6818	2.7092	2.4114	2.5087	3.7610	7.2241	
14	1.9985	1.9884	1.9466	1.7987	1.0074	0.4751		
	2.2552	2.2655	2.3154	2.4777	3.7465	7.2250		
15	0.9676	0.9658	0.9117	0.7664	F-SUB-Q			
	4.1934	4.1896	4.4128	5.2633	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1782	1.1293	1.2289	1.3978	1.8846	1.6313	1.9636	0.9615
	2.7739	3.5019	3.5484	3.0756	2.3278	2.6167	2.2413	4.1240
9	1.1293	1.5616	1.4347	1.8250	1.4947	1.6280	1.9549	0.9630
	3.5019	2.7939	3.0438	2.4160	2.8774	2.6418	2.2572	4.1123
10	1.2289	1.4352	1.2115	1.3598	1.8379	1.6141	1.9198	0.9126
	3.5484	3.0429	3.6073	3.1992	2.4288	2.6926	2.3276	4.3559
11	1.3978	1.8251	1.3603	1.7377	1.3438	1.8083	1.7838	0.7712
	3.0756	2.4159	3.1984	2.5132	3.2070	2.4560	2.5228	5.2482
12	1.8846	1.4946	1.8381	1.3439	1.1671	1.5021	1.0197	
	2.3278	2.8776	2.4286	3.2068	3.0247	2.5567	3.7583	
13	1.6313	1.6282	1.6143	1.8085	1.5022	0.8295	0.4842	
	2.6167	2.6415	2.6923	2.4558	2.5567	3.7845	7.2477	
14	1.9636	1.9550	1.9200	1.7840	1.0197	0.4841		
	2.2413	2.2572	2.3274	2.5225	3.7582	7.2486		
15	0.9615	0.9625	0.9138	0.7718	F-SUB-Q			
	4.1240	4.1129	4.3533	5.2457	M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2236	1.1457	1.2256	1.4005	1.9005	1.6328	1.9818	0.9496
	2.6363	3.3344	3.4693	2.9858	2.2421	2.5342	2.1520	4.0443
9	1.1457	1.5957	1.4477	1.8463	1.4974	1.6339	1.9747	0.9488
	3.3344	2.6487	2.9443	2.3246	2.7927	2.5584	2.1672	4.0449
10	1.2256	1.4482	1.2079	1.3660	1.8650	1.6255	1.9481	0.9000
	3.4693	2.9433	3.5303	3.1136	2.3363	2.6047	2.2333	4.2932
11	1.4005	1.8464	1.3665	1.7779	1.3510	1.8526	1.8259	0.7626
	2.9858	2.3245	3.1127	2.4275	3.1231	2.3880	2.4482	5.1828
12	1.9005	1.4973	1.8651	1.3511	1.1990	1.5593	1.0283	
	2.2421	2.7929	2.3362	3.1229	2.9456	2.4759	3.6991	
13	1.6328	1.6342	1.6257	1.8528	1.5593	0.8531	0.4903	
	2.5342	2.5581	2.6044	2.3879	2.4759	3.7112	7.0726	
14	1.9818	1.9747	1.9483	1.8261	1.0282	0.4902		
	2.1520	2.1671	2.2331	2.4480	3.6990	7.0736		
15	0.9496	0.9483	0.9009	0.7632	F-SUB-Q			
	4.0443	4.0455	4.2916	5.1802	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.3252	* 1.1808	* 1.2305	* 1.4016	* 1.9041	* 1.6290	* 1.9846	* 0.9432
	* 2.3603	* 2.9973	* 3.1928	* 2.7738	* 2.0971	* 2.3887	* 2.0277	* 3.8011
9	* 1.1808	* 1.6283	* 1.4588	* 1.8563	* 1.4977	* 1.6354	* 1.9795	* 0.9408
	* 2.9973	* 2.3749	* 2.7041	* 2.1573	* 2.6051	* 2.4098	* 2.0404	* 3.8078
10	* 1.2305	* 1.4593	* 1.2119	* 1.3753	* 1.8832	* 1.6347	* 1.9636	* 0.8972
	* 3.1928	* 2.7032	* 3.2529	* 2.8837	* 2.1645	* 2.4430	* 2.0938	* 4.0210
11	* 1.4016	* 1.8564	* 1.3759	* 1.8189	* 1.3743	* 1.8929	* 1.8616	* 0.7638
	* 2.7738	* 2.1572	* 2.8829	* 2.1803	* 2.8162	* 2.1431	* 2.1973	* 4.8292
12	* 1.9041	* 1.4976	* 1.8833	* 1.3743	* 1.2883	* 1.6345	* 1.0553	*
	* 2.0971	* 2.6052	* 2.1644	* 2.8160	* 2.6526	* 2.2221	* 3.3428	*
13	* 1.6290	* 1.6356	* 1.6349	* 1.8930	* 1.6345	* 0.9207	* 0.5091	*
	* 2.3887	* 2.4096	* 2.4428	* 2.1430	* 2.2221	* 3.3582	* 6.4287	*
14	* 1.9846	* 1.9796	* 1.9638	* 1.8618	* 1.0553	* 0.5089	*	*
	* 2.0277	* 2.0403	* 2.0936	* 2.1971	* 3.3428	* 6.4296	*	*
15	* 0.9432	* 0.9403	* 0.8981	* 0.7644	* F-SUB-Q			
	* 3.8011	* 3.8085	* 4.0195	* 4.8270	* M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5502	* 1.2400	* 1.2419	* 1.4027	* 1.9046	* 1.6236	* 1.9804	* 0.9404
	* 2.1435	* 2.7229	* 2.8485	* 2.4857	* 1.8773	* 2.1462	* 1.8188	* 3.4166
9	* 1.2400	* 1.6621	* 1.4707	* 1.8621	* 1.4980	* 1.6356	* 1.9774	* 0.9418
	* 2.7229	* 2.1542	* 2.4162	* 1.9291	* 2.3353	* 2.1645	* 1.8292	* 3.4098
10	* 1.2419	* 1.4712	* 1.2239	* 1.3856	* 1.9102	* 1.6509	* 1.9727	* 0.8998
	* 2.8485	* 2.4153	* 2.9003	* 2.5791	* 1.9460	* 2.1878	* 1.8726	* 3.6007
11	* 1.4027	* 1.8622	* 1.3861	* 1.8632	* 1.4109	* 1.9307	* 1.8928	* 0.7719
	* 2.4857	* 1.9291	* 2.5783	* 1.9775	* 2.5591	* 1.9449	* 1.9935	* 4.3102
12	* 1.9046	* 1.4978	* 1.9103	* 1.4110	* 1.4196	* 1.7610	* 1.0927	*
	* 1.8773	* 2.3355	* 1.9458	* 2.5589	* 2.4197	* 2.0235	* 3.0363	*
13	* 1.6236	* 1.6358	* 1.6511	* 1.9308	* 1.7610	* 1.0223	* 0.5360	*
	* 2.1462	* 2.1642	* 2.1876	* 1.9448	* 2.0235	* 3.0623	* 5.8695	*
14	* 1.9804	* 1.9775	* 1.9729	* 1.8930	* 1.0927	* 0.5358	*	*
	* 1.8188	* 1.8292	* 1.8724	* 1.9934	* 3.0363	* 5.8703	*	*
15	* 0.9404	* 0.9413	* 0.9008	* 0.7725	* F-SUB-Q			
	* 3.4166	* 3.4105	* 3.5995	* 4.3081	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6905	* 1.3040	* 1.2548	* 1.3994	* 1.8910	* 1.6117	* 1.9606	* 0.9405
	* 2.1170	* 2.6805	* 2.7733	* 2.4432	* 1.8515	* 2.1175	* 1.7979	* 3.3485
9	* 1.3040	* 1.6901	* 1.4746	* 1.8535	* 1.4931	* 1.6284	* 1.9603	* 0.9446
	* 2.6805	* 2.1288	* 2.3708	* 1.9003	* 2.2971	* 2.1347	* 1.8072	* 3.3326
10	* 1.2548	* 1.4752	* 1.2415	* 1.3906	* 1.9209	* 1.6572	* 1.9650	* 0.9082
	* 2.7733	* 2.3698	* 2.8232	* 2.5264	* 1.9150	* 2.1503	* 1.8447	* 3.5019
11	* 1.3994	* 1.8536	* 1.3910	* 1.8889	* 1.4395	* 1.9481	* 1.9048	* 0.7848
	* 2.4432	* 1.9002	* 2.5257	* 1.9555	* 2.5238	* 1.9240	* 1.9724	* 4.1735
12	* 1.8910	* 1.4930	* 1.9210	* 1.4395	* 1.5152	* 1.8397	* 1.1306	
	* 1.8515	* 2.2973	* 1.9149	* 2.5236	* 2.3889	* 2.0022	* 2.9638	
13	* 1.6117	* 1.6286	* 1.6575	* 1.9482	* 1.8397	* 1.1023	* 0.5623	
	* 2.1175	* 2.1344	* 2.1501	* 1.9239	* 2.0022	* 2.9963	* 5.7412	
14	* 1.9606	* 1.9604	* 1.9652	* 1.9050	* 1.1305	* 0.5621		
	* 1.7979	* 1.8071	* 1.8445	* 1.9723	* 2.9638	* 5.7420		
15	* 0.9405	* 0.9441	* 0.9094	* 0.7855	* F-SUB-Q			
	* 3.3485	* 3.3332	* 3.4997	* 4.1715	* M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7684	* 1.3468	* 1.2543	* 1.4070	* 1.9155	* 1.6184	* 1.9851	* 0.9290
	* 1.9083	* 2.4469	* 2.5485	* 2.2302	* 1.6760	* 1.9343	* 1.6280	* 3.1122
9	* 1.3468	* 1.7513	* 1.4937	* 1.8829	* 1.5012	* 1.6393	* 1.9894	* 0.9287
	* 2.4469	* 1.9177	* 2.1496	* 1.7159	* 2.0964	* 1.9449	* 1.6352	* 3.1125
10	* 1.2543	* 1.4943	* 1.2391	* 1.4078	* 1.9638	* 1.6802	* 1.9994	* 0.8950
	* 2.5485	* 2.1487	* 2.5980	* 2.3017	* 1.7264	* 1.9545	* 1.6630	* 3.2637
11	* 1.4070	* 1.8830	* 1.4083	* 1.9397	* 1.4612	* 1.9990	* 1.9525	* 0.7741
	* 2.2302	* 1.7158	* 2.3009	* 1.7533	* 2.2874	* 1.7217	* 1.7621	* 3.8886
12	* 1.9155	* 1.5010	* 1.9640	* 1.4613	* 1.5683	* 1.9146	* 1.1371	
	* 1.6760	* 2.0966	* 1.7263	* 2.2873	* 2.1711	* 1.8111	* 2.7402	
13	* 1.6184	* 1.6396	* 1.6804	* 1.9991	* 1.9146	* 1.1272	* 0.5663	
	* 1.9343	* 1.9446	* 1.9543	* 1.7216	* 1.8111	* 2.7719	* 5.3793	
14	* 1.9851	* 1.9896	* 1.9996	* 1.9527	* 1.1370	* 0.5661		
	* 1.6280	* 1.6351	* 1.6629	* 1.7620	* 2.7402	* 5.3802		
15	* 0.9290	* 0.9282	* 0.8959	* 0.7748	* F-SUB-Q			
	* 3.1122	* 3.1132	* 3.2625	* 3.8867	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7823	1.3547	1.2495	1.3979	1.9044	1.6048	1.9699	0.9178
	1.7444	2.2403	2.3708	2.0828	1.5634	1.8109	1.5219	2.9285
9	1.3547	1.7598	1.4900	1.8742	1.4912	1.6281	1.9770	0.9188
	2.2403	1.7631	1.9957	1.5977	1.9582	1.8164	1.5275	2.9277
10	1.2495	1.4906	1.2351	1.4033	1.9595	1.6743	1.9902	0.8863
	2.3708	1.9948	2.4175	2.1416	1.6039	1.8202	1.5473	3.0606
11	1.3979	1.8744	1.4037	1.9408	1.4602	1.9976	1.9504	0.7680
	2.0828	1.5976	2.1408	1.6252	2.1249	1.5990	1.6343	3.6336
12	1.9044	1.4910	1.9596	1.4602	1.5784	1.9266	1.1372	
	1.5634	1.9584	1.6038	2.1248	1.9944	1.6626	2.5396	
13	1.6048	1.6283	1.6746	1.9977	1.9266	1.1345	0.5674	
	1.8108	1.8161	1.8200	1.5989	1.6626	2.5576	4.9808	
14	1.9699	1.9771	1.9904	1.9506	1.1372	0.5672		
	1.5219	1.5275	1.5472	1.6342	2.5397	4.9816		
15	0.9178	0.9181	0.8873	0.7687	F-SUB-Q			
	2.9285	2.9284	3.0595	3.6318	M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7320	1.3294	1.2348	1.3642	1.8419	1.5612	1.8982	0.9024
	1.6858	2.1476	2.2445	2.0022	1.5158	1.7482	1.4820	2.8024
9	1.3294	1.7097	1.4553	1.8113	1.4542	1.5855	1.9063	0.9076
	2.1476	1.7076	1.9098	1.5484	1.8836	1.7487	1.4863	2.7851
10	1.2348	1.4559	1.2246	1.3702	1.8934	1.6301	1.9211	0.8784
	2.2445	1.9089	2.2863	2.0501	1.5428	1.7483	1.4990	2.9001
11	1.3642	1.8115	1.3706	1.8790	1.4269	1.9288	1.8832	0.7634
	2.0022	1.5483	2.0494	1.5625	2.0270	1.5362	1.5697	3.4211
12	1.8419	1.4541	1.8935	1.4269	1.5439	1.8686	1.1291	
	1.5158	1.8838	1.5427	2.0269	1.9149	1.6101	2.4088	
13	1.5612	1.5857	1.6303	1.9290	1.8686	1.1294	0.5665	
	1.7482	1.7484	1.7481	1.5361	1.6101	2.4136	4.6994	
14	1.8982	1.9064	1.9213	1.8834	1.1291	0.5663		
	1.4820	1.4862	1.4989	1.5696	2.4088	4.7001		
15	0.9024	0.9070	0.8797	0.7640	F-SUB-Q			
	2.8024	2.7857	2.8979	3.4193	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6808	* 1.2909	* 1.1860	* 1.3198	* 1.7817	* 1.5118	* 1.8329	* 0.8598
	* 1.6338	* 2.0735	* 2.2092	* 1.9627	* 1.4862	* 1.7147	* 1.4568	* 2.7992
9	* 1.2909	* 1.6608	* 1.4150	* 1.7537	* 1.4077	* 1.5364	* 1.8412	* 0.8615
	* 2.0735	* 1.6396	* 1.8549	* 1.5144	* 1.8453	* 1.7102	* 1.4600	* 2.7923
10	* 1.1860	* 1.4157	* 1.1720	* 1.3246	* 1.8300	* 1.5786	* 1.8558	* 0.8325
	* 2.2092	* 1.8539	* 2.2515	* 2.0016	* 1.5022	* 1.7014	* 1.4669	* 2.9057
11	* 1.3198	* 1.7538	* 1.3250	* 1.8186	* 1.3783	* 1.8612	* 1.8169	* 0.7206
	* 1.9627	* 1.5142	* 2.0009	* 1.5120	* 1.9667	* 1.4947	* 1.5306	* 3.4272
12	* 1.7817	* 1.4076	* 1.8302	* 1.3783	* 1.5002	* 1.8099	* 1.0731	
	* 1.4862	* 1.8454	* 1.5021	* 1.9666	* 1.8584	* 1.5629	* 2.3677	
13	* 1.5118	* 1.5367	* 1.5788	* 1.8613	* 1.8099	* 1.0818	* 0.5387	
	* 1.7147	* 1.7100	* 1.7012	* 1.4946	* 1.5629	* 2.3885	* 4.6732	
14	* 1.8329	* 1.8413	* 1.8560	* 1.8170	* 1.0730	* 0.5385		
	* 1.4568	* 1.4600	* 1.4668	* 1.5304	* 2.3677	* 4.6740		
15	* 0.8598	* 0.8609	* 0.8334	* 0.7213	* F-SUB-Q			
	* 2.7992	* 2.7929	* 2.9046	* 3.4253	* M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5192	* 1.1880	* 1.0879	* 1.2112	* 1.6090	* 1.3847	* 1.6478	* 0.7882
	* 1.7074	* 2.1347	* 2.3051	* 2.0517	* 1.5784	* 1.7982	* 1.5555	* 2.9397
9	* 1.1880	* 1.5033	* 1.3010	* 1.5839	* 1.2923	* 1.4071	* 1.6545	* 0.7894
	* 2.1347	* 1.7202	* 1.9289	* 1.6058	* 1.9279	* 1.7901	* 1.5583	* 2.9401
10	* 1.0879	* 1.3016	* 1.0764	* 1.2153	* 1.6495	* 1.4436	* 1.6664	* 0.7624
	* 2.3051	* 1.9279	* 2.3371	* 2.0836	* 1.5870	* 1.7736	* 1.5626	* 3.0487
11	* 1.2112	* 1.5840	* 1.2156	* 1.6406	* 1.2625	* 1.6702	* 1.6281	* 0.6559
	* 2.0517	* 1.6057	* 2.0829	* 1.5980	* 2.0468	* 1.5878	* 1.6297	* 3.6065
12	* 1.6090	* 1.2922	* 1.6496	* 1.2625	* 1.3752	* 1.6296	* 0.9807	
	* 1.5784	* 1.9281	* 1.5869	* 2.0467	* 1.9166	* 1.6437	* 2.4675	
13	* 1.3847	* 1.4073	* 1.4438	* 1.6703	* 1.6296	* 0.9935	* 0.4944	
	* 1.7982	* 1.7899	* 1.7734	* 1.5877	* 1.6437	* 2.4580	* 4.8360	
14	* 1.6478	* 1.6546	* 1.6666	* 1.6283	* 0.9806	* 0.4942		
	* 1.5555	* 1.5583	* 1.5624	* 1.6295	* 2.4675	* 4.8369		
15	* 0.7882	* 0.7888	* 0.7633	* 0.6565	* F-SUB-Q			
	* 2.9397	* 2.9408	* 3.0475	* 3.6045	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 250 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2388	* 0.9626	* 0.8793	* 0.9764	* 1.2983	* 1.1093	* 1.3232	* 0.6377
	* 2.0170	* 2.5424	* 2.7585	* 2.4652	* 1.8929	* 2.1758	* 1.8777	* 3.5311
9	* 0.9626	* 1.2216	* 1.0517	* 1.2805	* 1.0446	* 1.1237	* 1.3273	* 0.6437
	* 2.5424	* 2.0435	* 2.3064	* 1.9212	* 2.3100	* 2.1696	* 1.8809	* 3.4991
10	* 0.8793	* 1.0521	* 0.8696	* 0.9826	* 1.3347	* 1.1518	* 1.3300	* 0.6178
	* 2.7585	* 2.3053	* 2.7964	* 2.4896	* 1.8874	* 2.1431	* 1.8930	* 3.6510
11	* 0.9764	* 1.2805	* 0.9828	* 1.3320	* 1.0193	* 1.3441	* 1.2931	* 0.5293
	* 2.4652	* 1.9211	* 2.4888	* 1.8946	* 2.4411	* 1.8967	* 1.9765	* 4.3280
12	* 1.2983	* 1.0445	* 1.3347	* 1.0193	* 1.1163	* 1.3009	* 0.7902	
	* 1.8929	* 2.3102	* 1.8873	* 2.4409	* 2.2745	* 1.9847	* 2.9598	
13	* 1.1093	* 1.1238	* 1.1519	* 1.3441	* 1.3009	* 0.8050	* 0.4001	
	* 2.1758	* 2.1694	* 2.1429	* 1.8966	* 1.9848	* 2.9235	* 5.7747	
14	* 1.3232	* 1.3273	* 1.3301	* 1.2932	* 0.7901	* 0.4000		
	* 1.8777	* 1.8808	* 1.8929	* 1.9763	* 2.9598	* 5.7756		
15	* 0.6377	* 0.6432	* 0.6184	* 0.5297	* F-SUB-Q			
	* 3.5311	* 3.5001	* 3.6501	* 4.3258	* M-SUB-Q			

AT 50% POWER, 250 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4974	* 0.4188	* 0.3935	* 0.4337	* 0.5206	* 0.4490	* 0.4975	* 0.2680
	* 4.8687	* 5.6589	* 5.9851	* 5.3940	* 4.5842	* 5.2130	* 4.8432	* 8.1731
9	* 0.4188	* 0.4858	* 0.4295	* 0.5101	* 0.4530	* 0.4539	* 0.4980	* 0.2697
	* 5.6589	* 4.9588	* 5.4759	* 4.6815	* 5.1735	* 5.2051	* 4.8522	* 8.1211
10	* 0.3935	* 0.4297	* 0.3903	* 0.4364	* 0.5304	* 0.4635	* 0.4975	* 0.2620
	* 5.9851	* 5.4736	* 6.0583	* 5.4347	* 4.5900	* 5.1577	* 4.9021	* 8.3713
11	* 0.4337	* 0.5101	* 0.4365	* 0.5143	* 0.4508	* 0.5295	* 0.4791	* 0.2288
	* 5.3940	* 4.6811	* 5.4334	* 4.7434	* 5.3422	* 4.6541	* 5.1597	* 9.7264
12	* 0.5206	* 0.4530	* 0.5305	* 0.4508	* 0.4473	* 0.4877	* 0.3290	
	* 4.5842	* 5.1736	* 4.5896	* 5.3420	* 5.5010	* 5.1272	* 6.8938	
13	* 0.4490	* 0.4539	* 0.4635	* 0.5296	* 0.4877	* 0.3354	* 0.1773	
	* 5.2130	* 5.2046	* 5.1573	* 4.6539	* 5.1272	* 6.8065	* 12.6756	
14	* 0.4975	* 0.4980	* 0.4975	* 0.4791	* 0.3289	* 0.1772		
	* 4.8432	* 4.8521	* 4.9017	* 5.1592	* 6.8938	* 12.6767		
15	* 0.2680	* 0.2696	* 0.2621	* 0.2290	* F-SUB-Q			
	* 8.1731	* 8.1217	* 8.3718	* 9.7232	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.3551	* 0.3968	* 0.4426	* 0.5141	* 0.6081	* 0.5076	* 0.4354	* 0.2320
	* 4.3448	* 4.9865	* 5.0415	* 4.4221	* 3.8705	* 4.1978	* 4.0765	* 6.3329
9	* 0.3968	* 0.4653	* 0.4636	* 0.5859	* 0.5411	* 0.5258	* 0.5333	* 0.2981
	* 4.9865	* 4.6134	* 4.6778	* 4.0148	* 4.1953	* 4.2034	* 4.1005	* 6.4200
10	* 0.4426	* 0.4637	* 0.3684	* 0.4858	* 0.6014	* 0.5326	* 0.5596	* 0.3008
	* 5.0415	* 4.6768	* 5.1086	* 4.5902	* 3.9635	* 4.2246	* 4.1902	* 6.5813
11	* 0.5141	* 0.5860	* 0.4859	* 0.5307	* 0.4906	* 0.5726	* 0.5366	* 0.2789
	* 4.4221	* 4.0146	* 4.5897	* 4.3451	* 4.5691	* 4.0720	* 4.3506	* 7.3977
12	* 0.6081	* 0.5411	* 0.6014	* 0.4906	* 0.3793	* 0.4628	* 0.3527	
	* 3.8705	* 4.1951	* 3.9633	* 4.5689	* 4.5094	* 4.4861	* 5.7783	
13	* 0.5076	* 0.5259	* 0.5327	* 0.5726	* 0.4628	* 0.2924	* 0.1930	
	* 4.1978	* 4.2031	* 4.2243	* 4.0718	* 4.4861	* 5.5698	* 9.6910	
14	* 0.4354	* 0.5334	* 0.5597	* 0.5367	* 0.3527	* 0.1930		
	* 4.0765	* 4.1003	* 4.1897	* 4.3501	* 5.7771	* 9.6914		
15	* 0.2320	* 0.2980	* 0.3012	* 0.2791	* F-SUB-Q			
	* 6.3330	* 6.4168	* 6.5806	* 7.3997	* M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.7774	* 0.8229	* 0.9016	* 1.0540	* 1.3372	* 1.1139	* 0.9892	* 0.5155
	* 2.0867	* 2.4760	* 2.5749	* 2.2446	* 1.8290	* 1.9590	* 1.8209	* 2.9743
9	* 0.8229	* 1.0296	* 1.0212	* 1.2911	* 1.1284	* 1.1504	* 1.2437	* 0.6583
	* 2.4760	* 2.1503	* 2.2053	* 1.8942	* 2.0931	* 1.9594	* 1.8243	* 3.0042
10	* 0.9016	* 1.0214	* 0.7458	* 0.9974	* 1.3262	* 1.1867	* 1.3096	* 0.6692
	* 2.5749	* 2.2050	* 2.6116	* 2.3195	* 1.8842	* 1.9850	* 1.8584	* 3.1077
11	* 1.0540	* 1.2911	* 0.9975	* 1.2092	* 1.0098	* 1.2894	* 1.2640	* 0.6021
	* 2.2446	* 1.8942	* 2.3192	* 1.9626	* 2.3311	* 1.9005	* 1.9400	* 3.6029
12	* 1.3372	* 1.1284	* 1.3263	* 1.0098	* 0.8441	* 1.0776	* 0.7834	
	* 1.8290	* 2.0930	* 1.8841	* 2.3310	* 2.1034	* 1.9773	* 2.7293	
13	* 1.1139	* 1.1505	* 1.1869	* 1.2895	* 1.0776	* 0.6395	* 0.4083	
	* 1.9590	* 1.9593	* 1.9848	* 1.9003	* 1.9773	* 2.6057	* 4.6861	
14	* 0.9892	* 1.2438	* 1.3098	* 1.2642	* 0.7834	* 0.4082		
	* 1.8209	* 1.8242	* 1.8582	* 1.9398	* 2.7287	* 4.6864		
15	* 0.5155	* 0.6583	* 0.6701	* 0.6026	* F-SUB-Q			
	* 2.9743	* 3.0028	* 3.1076	* 3.6037	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 22 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.9463	* 0.9873	* 1.0910	* 1.2739	* 1.6208	* 1.3432	* 1.2418	* 0.6560
	* 1.8055	* 2.1387	* 2.2042	* 1.9258	* 1.5630	* 1.6593	* 1.5315	* 2.4911
9	* 0.9873	* 1.2457	* 1.2302	* 1.5646	* 1.3571	* 1.3917	* 1.5257	* 0.8224
	* 2.1387	* 1.8440	* 1.9021	* 1.6206	* 1.8044	* 1.6678	* 1.5370	* 2.5208
10	* 1.0910	* 1.2303	* 0.9318	* 1.2115	* 1.6038	* 1.4418	* 1.5962	* 0.8175
	* 2.2042	* 1.9018	* 2.2259	* 1.9873	* 1.6113	* 1.6887	* 1.5740	* 2.6058
11	* 1.2739	* 1.5646	* 1.2117	* 1.4591	* 1.2261	* 1.5679	* 1.5408	* 0.7429
	* 1.9258	* 1.6206	* 1.9871	* 1.6823	* 1.9924	* 1.6121	* 1.6413	* 3.0217
12	* 1.6208	* 1.3571	* 1.6039	* 1.2262	* 1.0226	* 1.3022	* 0.9620	*
	* 1.5630	* 1.8043	* 1.6112	* 1.9923	* 1.8353	* 1.6812	* 2.2903	*
13	* 1.3432	* 1.3919	* 1.4421	* 1.5681	* 1.3023	* 0.7679	* 0.4961	*
	* 1.6593	* 1.6678	* 1.6885	* 1.6120	* 1.6812	* 2.2319	* 3.9497	*
14	* 1.2418	* 1.5258	* 1.5964	* 1.5410	* 0.9620	* 0.4960	*	*
	* 1.5315	* 1.5370	* 1.5739	* 1.6411	* 2.2898	* 3.9501	*	*
15	* 0.6560	* 0.8223	* 0.8187	* 0.7435	* F-SUB-Q			
	* 2.4911	* 2.5196	* 2.6053	* 3.0224	* M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0556	* 1.0766	* 1.1875	* 1.3924	* 1.8155	* 1.4805	* 1.4524	* 0.7513
	* 1.6899	* 2.0554	* 2.1324	* 1.8458	* 1.4611	* 1.5745	* 1.4121	* 2.3924
9	* 1.0766	* 1.4017	* 1.3599	* 1.7555	* 1.4841	* 1.5400	* 1.7505	* 0.8981
	* 2.0554	* 1.7264	* 1.8188	* 1.5145	* 1.7278	* 1.5845	* 1.4184	* 2.4290
10	* 1.1875	* 1.3600	* 1.0378	* 1.3262	* 1.7948	* 1.5849	* 1.8098	* 0.8889
	* 2.1324	* 1.8186	* 2.1414	* 1.9011	* 1.5020	* 1.5970	* 1.4520	* 2.5293
11	* 1.3924	* 1.7555	* 1.3265	* 1.6437	* 1.3306	* 1.7617	* 1.7345	* 0.7967
	* 1.8458	* 1.5145	* 1.9008	* 1.5657	* 1.9009	* 1.4824	* 1.5063	* 2.9232
12	* 1.8155	* 1.4841	* 1.7949	* 1.3307	* 1.1098	* 1.4561	* 1.0319	*
	* 1.4611	* 1.7277	* 1.5019	* 1.9008	* 1.7469	* 1.5560	* 2.2024	*
13	* 1.4805	* 1.5401	* 1.5852	* 1.7618	* 1.4561	* 0.8176	* 0.5226	*
	* 1.5745	* 1.5845	* 1.5967	* 1.4823	* 1.5560	* 2.1656	* 3.8684	*
14	* 1.4524	* 1.7506	* 1.8101	* 1.7347	* 1.0319	* 0.5224	*	*
	* 1.4121	* 1.4183	* 1.4518	* 1.5061	* 2.2019	* 3.8688	*	*
15	* 0.7513	* 0.8979	* 0.8904	* 0.7973	* F-SUB-Q			
	* 2.3924	* 2.4280	* 2.5291	* 2.9237	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 20 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0993	1.1141	1.2386	1.4386	1.8924	1.5528	1.6668	0.8818
	1.7197	2.1126	2.1832	1.8899	1.4846	1.6085	1.4251	2.4372
9	1.1141	1.4966	1.4243	1.8335	1.5334	1.6161	1.8759	0.9526
	2.1126	1.7588	1.8680	1.5366	1.7686	1.6186	1.4317	2.4688
10	1.2386	1.4244	1.1594	1.3816	1.8664	1.6360	1.9048	0.9302
	2.1832	1.8678	2.2045	1.9421	1.5112	1.6158	1.4607	2.5719
11	1.4386	1.8336	1.3819	1.7249	1.3751	1.8311	1.8062	0.8256
	1.8899	1.5366	1.9418	1.5869	1.9196	1.4841	1.5051	2.9486
12	1.8924	1.5334	1.8665	1.3752	1.1397	1.5063	1.0614	
	1.4846	1.7685	1.5112	1.9195	1.7839	1.5719	2.2244	
13	1.5528	1.6163	1.6363	1.8313	1.5063	0.8335	0.5308	
	1.6085	1.6185	1.6155	1.4839	1.5719	2.2129	3.9671	
14	1.6668	1.8761	1.9050	1.8064	1.0615	0.5307		
	1.4251	1.4317	1.4606	1.5050	2.2240	3.9675		
15	0.8818	0.9523	0.9318	0.8263	F-SUB-Q			
	2.4372	2.4678	2.5717	2.9491	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 19 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1154	1.1414	1.2662	1.4539	1.9194	1.6270	1.9132	0.9804
	1.8099	2.2307	2.2863	1.9786	1.5560	1.6877	1.4875	2.5435
9	1.1414	1.5503	1.4568	1.8619	1.5500	1.6590	1.9474	0.9949
	2.2307	1.8501	1.9714	1.6048	1.8506	1.6972	1.4934	2.5703
10	1.2662	1.4570	1.2355	1.4072	1.8866	1.6574	1.9452	0.9666
	2.2863	1.9712	2.3138	2.0286	1.5709	1.6865	1.5150	2.6653
11	1.4538	1.8619	1.4075	1.7563	1.3900	1.8458	1.8230	0.8412
	1.9786	1.6048	2.0282	1.6616	1.9967	1.5442	1.5637	3.0446
12	1.9194	1.5500	1.8867	1.3901	1.1456	1.5115	1.0699	
	1.5560	1.8506	1.5708	1.9966	1.8781	1.6467	2.3135	
13	1.6270	1.6591	1.6576	1.8460	1.5115	0.8345	0.5314	
	1.6877	1.6971	1.6862	1.5441	1.6467	2.3231	4.1638	
14	1.9132	1.9475	1.9454	1.8232	1.0699	0.5313		
	1.4875	1.4934	1.5148	1.5636	2.3131	4.1642		
15	0.9804	0.9944	0.9678	0.8418	F-SUB-Q			
	2.5435	2.5693	2.6647	3.0452	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1260	1.1427	1.2705	1.4592	1.9452	1.6789	2.0069	1.0221
	1.9160	2.3753	2.4111	2.0809	1.6187	1.7698	1.5513	2.6936
9	1.1427	1.5830	1.4743	1.8830	1.5566	1.6835	2.0054	1.0228
	2.3753	1.9524	2.0630	1.6750	1.9443	1.7680	1.5525	2.7187
10	1.2705	1.4745	1.2531	1.4141	1.9023	1.6698	1.9769	0.9729
	2.4111	2.0627	2.4356	2.1321	1.6427	1.7708	1.5695	2.8005
11	1.4592	1.8831	1.4145	1.7764	1.3835	1.8583	1.8375	0.8359
	2.0809	1.6750	2.1317	1.7434	2.1225	1.6201	1.6379	3.2300
12	1.9452	1.5565	1.9024	1.3835	1.1365	1.5158	1.0597	
	1.6187	1.9443	1.6426	2.1224	1.9913	1.7341	2.4716	
13	1.6789	1.6836	1.6700	1.8584	1.5159	0.8234	0.5222	
	1.7698	1.7678	1.7706	1.6200	1.7341	2.4812	4.4693	
14	2.0069	2.0055	1.9771	1.8377	1.0597	0.5221		
	1.5513	1.5525	1.5694	1.6378	2.4712	4.4698		
15	1.0221	1.0224	0.9739	0.8365	F-SUB-Q			
	2.6936	2.7178	2.8005	3.2307	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1236	1.1374	1.2642	1.4497	1.9407	1.6858	2.0290	1.0324
	2.0473	2.5474	2.5979	2.2335	1.7321	1.8818	1.6383	2.8496
9	1.1374	1.5840	1.4697	1.8771	1.5463	1.6806	2.0206	1.0315
	2.5474	2.0900	2.2191	1.7944	2.0862	1.8894	1.6437	2.8797
10	1.2642	1.4699	1.2494	1.4052	1.8925	1.6616	1.9760	0.9720
	2.5979	2.2187	2.6217	2.2906	1.7443	1.8843	1.6739	2.9900
11	1.4497	1.8771	1.4055	1.7689	1.3703	1.8482	1.8291	0.8288
	2.2335	1.7944	2.2902	1.8671	2.2795	1.7349	1.7507	3.4387
12	1.9407	1.5463	1.8926	1.3704	1.1235	1.5044	1.0481	
	1.7321	2.0862	1.7442	2.2793	2.1284	1.8457	2.6492	
13	1.6858	1.6807	1.6618	1.8483	1.5044	0.8122	0.5140	
	1.8818	1.8893	1.8840	1.7348	1.8457	2.6613	4.7936	
14	2.0290	2.0207	1.9762	1.8293	1.0481	0.5139		
	1.6383	1.6437	1.6738	1.7505	2.6488	4.7941		
15	1.0324	1.0311	0.9731	0.8294	F-SUB-Q			
	2.8496	2.8787	2.9901	3.4395	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 16 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1234	1.1260	1.2509	1.4359	1.9311	1.6777	2.0306	1.0263
	2.2305	2.7836	2.8063	2.4042	1.8554	2.0427	1.7671	3.0951
9	1.1260	1.5808	1.4602	1.8679	1.5318	1.6701	2.0201	1.0232
	2.7836	2.2723	2.3912	1.9207	2.2433	2.0319	1.7733	3.1339
10	1.2509	1.4605	1.2364	1.3918	1.8813	1.6478	1.9692	0.9614
	2.8063	2.3907	2.8415	2.4640	1.8760	2.0271	1.7809	3.2264
11	1.4359	1.8680	1.3921	1.7602	1.3526	1.8378	1.8201	0.8159
	2.4042	1.9207	2.4635	2.0120	2.4856	1.8778	1.8906	3.7321
12	1.9311	1.5318	1.8814	1.3526	1.1125	1.4967	1.0331	
	1.8554	2.2433	1.8759	2.4855	2.3187	1.9995	2.8923	
13	1.6777	1.6702	1.6479	1.8379	1.4967	0.8023	0.5055	
	2.0427	2.0318	2.0269	1.8777	1.9995	2.9088	5.2441	
14	2.0306	2.0201	1.9694	1.8203	1.0331	0.5053		
	1.7671	1.7732	1.7808	1.8904	2.8919	5.2447		
15	1.0263	1.0228	0.9624	0.8165	F-SUB-Q			
	3.0951	3.1329	3.2264	3.7328	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1161	1.1246	1.2410	1.4070	1.8829	1.6436	1.9844	1.0192
	2.5049	3.1108	3.0686	2.6599	2.0526	2.2257	1.9335	3.3366
9	1.1246	1.5469	1.4312	1.8223	1.4998	1.6353	1.9733	1.0204
	3.1108	2.5481	2.6444	2.1342	2.4817	2.2311	1.9381	3.3593
10	1.2410	1.4315	1.2268	1.3714	1.8343	1.6130	1.9214	0.9640
	3.0686	2.6437	3.0972	2.7215	2.0915	2.2399	1.9699	3.4518
11	1.4070	1.8223	1.3717	1.7194	1.3418	1.7938	1.7765	0.8157
	2.6599	2.1342	2.7210	2.2483	2.7408	2.0987	2.1094	4.0498
12	1.8829	1.4997	1.8343	1.3419	1.1110	1.4661	1.0300	
	2.0526	2.4817	2.0914	2.7406	2.5933	2.2399	3.1646	
13	1.6436	1.6354	1.6131	1.7939	1.4661	0.8049	0.5056	
	2.2257	2.2309	2.2397	2.0986	2.2399	3.2031	5.7430	
14	1.9844	1.9734	1.9216	1.7767	1.0300	0.5055		
	1.9335	1.9380	1.9697	2.1093	3.1641	5.7436		
15	1.0192	1.0200	0.9652	0.8163	F-SUB-Q			
	3.3366	3.3583	3.4510	4.0508	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1346	1.1061	1.2203	1.3945	1.8804	1.6317	1.9865	0.9999
	2.6806	3.3376	3.4493	2.9615	2.2596	2.4472	2.1037	3.6916
9	1.1061	1.5525	1.4248	1.8226	1.4868	1.6234	1.9753	0.9989
	3.3376	2.7105	2.9355	2.3559	2.7604	2.4651	2.1133	3.7292
10	1.2203	1.4251	1.2054	1.3529	1.8342	1.6021	1.9239	0.9370
	3.4493	2.9347	3.4829	3.0482	2.3119	2.4834	2.1633	3.8862
11	1.3945	1.8226	1.3532	1.7240	1.3199	1.7986	1.7822	0.7941
	2.9615	2.3558	3.0476	2.4508	3.0707	2.3171	2.3234	4.5725
12	1.8804	1.4867	1.8343	1.3199	1.1110	1.4776	1.0117	
	2.2596	2.7605	2.3118	3.0706	2.8610	2.4526	3.5391	
13	1.6317	1.6236	1.6023	1.7986	1.4776	0.8000	0.4954	
	2.4472	2.4649	2.4832	2.3170	2.4527	3.5915	6.4609	
14	1.9865	1.9754	1.9240	1.7823	1.0116	0.4952		
	2.1037	2.1133	2.1631	2.3233	3.5387	6.4617		
15	0.9999	0.9985	0.9379	0.7947	F-SUB-Q			
	3.6916	3.7282	3.8863	4.5734	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1357	1.0978	1.2070	1.3756	1.8560	1.6079	1.9623	0.9858
	2.7271	3.4004	3.6164	3.1326	2.4266	2.6696	2.3120	4.0621
9	1.0978	1.5404	1.4092	1.8021	1.4660	1.5999	1.9515	0.9854
	3.4004	2.7580	3.0922	2.5038	2.9386	2.6957	2.3269	4.1039
10	1.2070	1.4096	1.1919	1.3359	1.8133	1.5810	1.9023	0.9250
	3.6164	3.0913	3.6670	3.2522	2.4717	2.7378	2.4008	4.3035
11	1.3756	1.8022	1.3363	1.7089	1.3062	1.7824	1.7664	0.7849
	3.1326	2.5038	3.2515	2.4979	3.1371	2.4342	2.4920	5.1276
12	1.8560	1.4659	1.8134	1.3062	1.1080	1.4706	1.0039	
	2.4266	2.9387	2.4716	3.1370	2.9478	2.5276	3.6412	
13	1.6079	1.6001	1.5811	1.7825	1.4706	0.7995	0.4921	
	2.6696	2.6955	2.7376	2.4341	2.5276	3.7115	6.7038	
14	1.9623	1.9516	1.9024	1.7665	1.0039	0.4920		
	2.3120	2.3269	2.4006	2.4918	3.6408	6.7046		
15	0.9858	0.9850	0.9259	0.7854	F-SUB-Q			
	4.0621	4.1028	4.3038	5.1287	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1260	1.0977	1.2005	1.3532	1.8170	1.5770	1.9206	0.9764
	2.8118	3.4938	3.5280	3.0865	2.3993	2.6289	2.2796	3.9556
9	1.0977	1.5169	1.3880	1.7673	1.4407	1.5694	1.9106	0.9787
	3.4938	2.8440	3.0462	2.4750	2.8975	2.6564	2.2958	3.9873
10	1.2005	1.3884	1.1858	1.3224	1.7785	1.5536	1.8649	0.9261
	3.5280	3.0453	3.5772	3.1869	2.4827	2.7006	2.3730	4.1597
11	1.3532	1.7674	1.3228	1.6807	1.3006	1.7528	1.7371	0.7857
	3.0865	2.4749	3.1863	2.5788	3.2203	2.5134	2.5726	4.9749
12	1.8170	1.4406	1.7785	1.3006	1.1064	1.4517	1.0055	
	2.3993	2.8976	2.4826	3.2202	3.0414	2.6127	3.7021	
13	1.5770	1.5696	1.5537	1.7528	1.4516	0.8030	0.4951	
	2.6289	2.6562	2.7004	2.5134	2.6127	3.7849	6.8131	
14	1.9206	1.9106	1.8650	1.7372	1.0055	0.4949		
	2.2796	2.2958	2.3728	2.5725	3.7017	6.8140		
15	0.9764	0.9783	0.9273	0.7863	F-SUB-Q			
	3.9556	3.9861	4.1586	4.9761	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1423	1.0920	1.1887	1.3487	1.8223	1.5703	1.9278	0.9601
	2.7225	3.3849	3.4980	3.0350	2.3420	2.5798	2.2186	3.9283
9	1.0920	1.5337	1.3911	1.7773	1.4357	1.5650	1.9186	0.9604
	3.3849	2.7491	2.9845	2.4131	2.8487	2.6069	2.2345	3.9690
10	1.1887	1.3915	1.1734	1.3146	1.7895	1.5523	1.8773	0.9045
	3.4980	2.9835	3.5494	3.1487	2.4211	2.6492	2.3096	4.1691
11	1.3487	1.7773	1.3150	1.6979	1.2901	1.7719	1.7566	0.7701
	3.0350	2.4131	3.1480	2.5357	3.2013	2.4833	2.5140	4.9831
12	1.8223	1.4355	1.7896	1.2901	1.1069	1.4753	0.9977	
	2.3420	2.8488	2.4211	3.2012	3.0300	2.5880	3.7297	
13	1.5703	1.5652	1.5524	1.7720	1.4753	0.8024	0.4907	
	2.5798	2.6067	2.6491	2.4833	2.5880	3.8031	6.7906	
14	1.9278	1.9186	1.8774	1.7567	0.9977	0.4905		
	2.2186	2.2345	2.3095	2.5139	3.7293	6.7916		
15	0.9601	0.9600	0.9054	0.7707	F-SUB-Q			
	3.9283	3.9681	4.1694	4.9841	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 10 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1684	1.1048	1.1876	1.3451	1.8197	1.5612	1.9232	0.9509
	2.4132	3.0091	3.2689	2.8712	2.2255	2.4670	2.1205	3.7545
9	1.1048	1.5494	1.3945	1.7797	1.4307	1.5591	1.9154	0.9489
	3.0091	2.4372	2.7859	2.2826	2.7048	2.4928	2.1356	3.8040
10	1.1876	1.3950	1.1714	1.3156	1.7946	1.5505	1.8806	0.8979
	3.2689	2.7850	3.3237	2.9630	2.2664	2.5314	2.2058	3.9834
11	1.3451	1.7798	1.3160	1.7138	1.2950	1.7882	1.7720	0.7671
	2.8712	2.2825	2.9625	2.2744	2.8814	2.2421	2.2903	4.7433
12	1.8197	1.4305	1.7947	1.2950	1.1257	1.5036	1.0065	
	2.2255	2.7049	2.2663	2.8814	2.7148	2.3173	3.3533	
13	1.5612	1.5592	1.5506	1.7883	1.5036	0.8195	0.4974	
	2.4670	2.4926	2.5313	2.2420	2.3173	3.4145	6.1198	
14	1.9232	1.9154	1.8807	1.7721	1.0064	0.4972		
	2.1205	2.1355	2.2056	2.2903	3.3530	6.1207		
15	0.9509	0.9484	0.8988	0.7676	F-SUB-Q			
	3.7545	3.8032	3.9837	4.7442	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 9 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2319	1.1343	1.1978	1.3453	1.8192	1.5543	1.9169	0.9477
	2.1670	2.7035	2.8755	2.5392	1.9760	2.2084	1.8997	3.3493
9	1.1343	1.5755	1.4040	1.7838	1.4298	1.5565	1.9107	0.9496
	2.7035	2.1862	2.4554	2.0156	2.3971	2.2292	1.9111	3.3788
10	1.1978	1.4045	1.1823	1.3227	1.8043	1.5535	1.8844	0.8996
	2.8755	2.4545	2.9215	2.6233	2.0354	2.2515	1.9638	3.5303
11	1.3453	1.7839	1.3231	1.7421	1.3173	1.8127	1.7927	0.7733
	2.5392	2.0156	2.6227	2.0431	2.5935	2.0166	2.0595	4.1802
12	1.8192	1.4297	1.8043	1.3173	1.1794	1.5561	1.0326	
	1.9760	2.3972	2.0353	2.5934	2.4535	2.0913	3.0162	
13	1.5543	1.5566	1.5536	1.8128	1.5561	0.8691	0.5167	
	2.2084	2.2291	2.2514	2.0166	2.0913	3.0821	5.5291	
14	1.9169	1.9107	1.8845	1.7927	1.0325	0.5166		
	1.8997	1.9110	1.9637	2.0595	3.0159	5.5299		
15	0.9477	0.9491	0.9005	0.7739	F-SUB-Q			
	3.3493	3.3781	3.5307	4.1811	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3833	1.1791	1.2173	1.3474	1.8130	1.5471	1.9028	0.9509
	2.1094	2.6250	2.7546	2.4594	1.9205	2.1489	1.8525	3.2355
9	1.1791	1.6039	1.4149	1.7828	1.4303	1.5539	1.8985	0.9556
	2.6251	2.1298	2.3726	1.9561	2.3240	2.1685	1.8625	3.2548
10	1.2173	1.4154	1.2019	1.3335	1.8186	1.5657	1.8822	0.9140
	2.7546	2.3717	2.7979	2.5278	1.9745	2.1823	1.9084	3.3727
11	1.3474	1.7828	1.3339	1.7750	1.3567	1.8384	1.8119	0.7897
	2.4594	1.9560	2.5272	1.9955	2.5255	1.9712	2.0135	3.9864
12	1.8130	1.4301	1.8187	1.3567	1.3179	1.6412	1.0769	
	1.9205	2.3241	1.9743	2.5255	2.3946	2.0447	2.9069	
13	1.5471	1.5541	1.5658	1.8384	1.6412	0.9729	0.5487	
	2.1489	2.1683	2.1822	1.9712	2.0447	2.9778	5.3357	
14	1.9028	1.8985	1.8822	1.8120	1.0769	0.5485		
	1.8525	1.8625	1.9083	2.0135	2.9066	5.3365		
15	0.9509	0.9552	0.9152	0.7902	F-SUB-Q			
	3.2355	3.2540	3.3718	3.9874	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 7 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6600	1.2696	1.2269	1.3642	1.8490	1.5614	1.9362	0.9449
	1.8735	2.3628	2.4945	2.2114	1.7120	1.9360	1.6544	2.9619
9	1.2696	1.6764	1.4467	1.8242	1.4476	1.5735	1.9338	0.9450
	2.3628	1.8933	2.1181	1.7400	2.0898	1.9493	1.6621	2.9951
10	1.2269	1.4472	1.2094	1.3580	1.8815	1.6004	1.9274	0.9035
	2.4945	2.1172	2.5374	2.2709	1.7516	1.9560	1.6966	3.1077
11	1.3642	1.8242	1.3585	1.8519	1.3881	1.9096	1.8771	0.7850
	2.2114	1.7399	2.2703	1.7667	2.2606	1.7431	1.7774	3.6603
12	1.8490	1.4474	1.8816	1.3881	1.4397	1.7858	1.1036	
	1.7120	2.0899	1.7515	2.2605	2.1471	1.8260	2.6526	
13	1.5614	1.5737	1.6005	1.9097	1.7858	1.0574	0.5676	
	1.9360	1.9492	1.9560	1.7431	1.8261	2.7195	4.9315	
14	1.9362	1.9338	1.9274	1.8771	1.1035	0.5675		
	1.6544	1.6621	1.6965	1.7774	2.6524	4.9323		
15	0.9449	0.9445	0.9044	0.7856	F-SUB-Q			
	2.9619	2.9946	3.1080	3.6609	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7586	1.3305	1.2405	1.3726	1.8615	1.5648	1.9428	0.9441
	1.6813	2.1254	2.2776	2.0280	1.5676	1.7815	1.5195	2.7366
9	1.3305	1.7381	1.4649	1.8405	1.4557	1.5810	1.9427	0.9446
	2.1254	1.7084	1.9301	1.5899	1.9172	1.7892	1.5254	2.7661
10	1.2405	1.4655	1.2226	1.3757	1.9125	1.6191	1.9435	0.9059
	2.2776	1.9293	2.3172	2.0734	1.5957	1.7896	1.5505	2.8611
11	1.3726	1.8405	1.3760	1.8937	1.4172	1.9458	1.9087	0.7903
	2.0280	1.5899	2.0728	1.6093	2.0641	1.5904	1.6206	3.3561
12	1.8615	1.4556	1.9125	1.4172	1.5120	1.8600	1.1303	
	1.5676	1.9174	1.5956	2.0641	1.9393	1.6477	2.4160	
13	1.5648	1.5812	1.6192	1.9458	1.8599	1.1098	0.5863	
	1.7815	1.7890	1.7896	1.5903	1.6477	2.4659	4.4848	
14	1.9428	1.9428	1.9436	1.9088	1.1302	0.5861		
	1.5195	1.5254	1.5504	1.6205	2.4158	4.4855		
15	0.9441	0.9441	0.9068	0.7910	F-SUB-Q			
	2.7366	2.7656	2.8613	3.3567	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7699	1.3457	1.2516	1.3644	1.8348	1.5481	1.9072	0.9444
	1.5850	1.9936	2.1062	1.9065	1.4851	1.6829	1.4456	2.5610
9	1.3457	1.7387	1.4596	1.8168	1.4458	1.5670	1.9097	0.9503
	1.9936	1.6165	1.8061	1.5035	1.8037	1.6858	1.4499	2.5733
10	1.2516	1.4602	1.2384	1.3735	1.8937	1.6099	1.9138	0.9183
	2.1062	1.8053	2.1405	1.9389	1.4967	1.6772	1.4676	2.6391
11	1.3644	1.8170	1.3737	1.8807	1.4258	1.9275	1.8875	0.8020
	1.9065	1.5035	1.9384	1.5112	1.9187	1.4904	1.5191	3.0865
12	1.8348	1.4457	1.8937	1.4258	1.5241	1.8593	1.1515	
	1.4851	1.8039	1.4967	1.9187	1.8238	1.5592	2.2396	
13	1.5481	1.5671	1.6100	1.9275	1.8592	1.1398	0.6026	
	1.6829	1.6856	1.6771	1.4904	1.5592	2.2787	4.1421	
14	1.9072	1.9098	1.9139	1.8875	1.1514	0.6024		
	1.4456	1.4499	1.4675	1.5191	2.2394	4.1428		
15	0.9444	0.9498	0.9196	0.8026	F-SUB-Q			
	2.5610	2.5728	2.6381	3.0871	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7659	1.3407	1.2265	1.3477	1.8175	1.5288	1.8835	0.9173
	1.4984	1.8812	2.0270	1.8251	1.4168	1.6126	1.3841	2.4992
9	1.3407	1.7350	1.4504	1.8007	1.4289	1.5494	1.8877	0.9201
	1.8812	1.5140	1.7126	1.4322	1.7256	1.6110	1.3874	2.5190
10	1.2265	1.4511	1.2102	1.3578	1.8776	1.5924	1.8932	0.8849
	2.0270	1.7118	2.0621	1.8491	1.4194	1.5937	1.3989	2.5923
11	1.3477	1.8009	1.3582	1.8682	1.4040	1.9099	1.8675	0.7729
	1.8251	1.4321	1.8486	1.4250	1.8253	1.4115	1.4434	3.0222
12	1.8175	1.4288	1.8776	1.4040	1.5194	1.8518	1.1217	
	1.4168	1.7257	1.4193	1.8253	1.7276	1.4730	2.1496	
13	1.5288	1.5496	1.5925	1.9099	1.8518	1.1201	0.5876	
	1.6126	1.6109	1.5936	1.4114	1.4730	2.2010	4.0206	
14	1.8835	1.8877	1.8932	1.8676	1.1216	0.5874		
	1.3841	1.3874	1.3988	1.4433	2.1494	4.0213		
15	0.9173	0.9195	0.8857	0.7735	F-SUB-Q			
	2.4992	2.5186	2.5925	3.0227	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6424	1.2664	1.1523	1.2667	1.6868	1.4350	1.7393	0.8581
	1.5217	1.8873	2.0602	1.8578	1.4597	1.6449	1.4337	2.5640
9	1.2664	1.6163	1.3684	1.6710	1.3444	1.4544	1.7436	0.8584
	1.8873	1.5431	1.7323	1.4744	1.7546	1.6411	1.4363	2.5933
10	1.1523	1.3690	1.1402	1.2753	1.7384	1.4935	1.7497	0.8283
	2.0602	1.7315	2.0882	1.8772	1.4560	1.6176	1.4442	2.6543
11	1.2667	1.6712	1.2756	1.7335	1.3193	1.7626	1.7202	0.7204
	1.8578	1.4744	1.8767	1.4626	1.8510	1.4556	1.4914	3.1003
12	1.6868	1.3442	1.7385	1.3193	1.4301	1.7172	1.0495	
	1.4597	1.7548	1.4560	1.8510	1.7366	1.5057	2.1882	
13	1.4350	1.4546	1.4936	1.7626	1.7171	1.0555	0.5528	
	1.6449	1.6410	1.6175	1.4556	1.5057	2.2111	4.0658	
14	1.7393	1.7436	1.7497	1.7203	1.0494	0.5526		
	1.4337	1.4363	1.4442	1.4914	2.1880	4.0665		
15	0.8581	0.8577	0.8291	0.7210	F-SUB-Q			
	2.5640	2.5928	2.6545	3.1007	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 350 EFPD, THIS IS LEVEL 2 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3455	1.0543	0.9626	1.0515	1.3789	1.1857	1.4106	0.7090
	1.7868	2.1837	2.3793	2.1621	1.7229	1.9249	1.7062	3.0074
9	1.0543	1.3257	1.1418	1.3667	1.1193	1.2000	1.4138	0.7153
	2.1837	1.8123	2.0027	1.7385	2.0353	1.9199	1.7089	3.0191
10	0.9626	1.1423	0.9522	1.0597	1.4168	1.2299	1.4165	0.6858
	2.3793	2.0018	2.4112	2.1767	1.7154	1.8899	1.7183	3.1043
11	1.0515	1.3668	1.0600	1.4202	1.0945	1.4286	1.3870	0.5924
	2.1621	1.7384	2.1761	1.7118	2.1418	1.7205	1.7775	3.6446
12	1.3789	1.1192	1.4168	1.0945	1.2002	1.3939	0.8624	
	1.7229	2.0354	1.7154	2.1417	1.9915	1.7846	2.5710	
13	1.1857	1.2001	1.2299	1.4286	1.3939	0.8785	0.4590	
	1.9249	1.9198	1.8898	1.7205	1.7846	2.5589	4.7333	
14	1.4106	1.4139	1.4165	1.3870	0.8623	0.4588		
	1.7062	1.7088	1.7182	1.7774	2.5709	4.7340		
15	0.7090	0.7148	0.6867	0.5929	F-SUB-Q			
	3.0074	3.0189	3.1049	3.6452	M-SUB-Q			

AT 50% POWER, 350 EFPD, THIS IS LEVEL 1 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.5726	0.4843	0.4554	0.4931	0.5869	0.5093	0.5657	0.3130
	4.0571	4.5901	4.8725	4.4694	3.9220	4.3341	4.1172	6.6126
9	0.4843	0.5607	0.4939	0.5792	0.5134	0.5149	0.5661	0.3146
	4.5901	4.1300	4.4773	3.9730	4.2996	4.3249	4.1238	6.6539
10	0.4554	0.4941	0.4511	0.4964	0.5987	0.5248	0.5658	0.3056
	4.8725	4.4755	4.9339	4.4961	3.9214	4.2780	4.1588	6.7562
11	0.4931	0.5793	0.4965	0.5828	0.5111	0.5988	0.5481	0.2689
	4.4694	3.9728	4.4951	4.0251	4.4327	3.9601	4.3428	7.7886
12	0.5869	0.5134	0.5987	0.5111	0.5113	0.5576	0.3780	
	3.9220	4.2997	3.9212	4.4327	4.5221	4.3115	5.6676	
13	0.5093	0.5149	0.5249	0.5988	0.5576	0.3867	0.2131	
	4.3341	4.3246	4.2778	3.9601	4.3116	5.6332	9.9082	
14	0.5657	0.5662	0.5659	0.5481	0.3779	0.2130		
	4.1172	4.1238	4.1586	4.3427	5.6671	9.9091		
15	0.3130	0.3145	0.3058	0.2691	F-SUB-Q			
	6.6126	6.6519	6.7595	7.7912	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.4199	* 0.4708	* 0.5234	* 0.6015	* 0.7076	* 0.5907	* 0.5040	* 0.2764
	* 3.7545	* 4.2375	* 4.2854	* 3.8024	* 3.4405	* 3.5876	* 3.5719	* 5.1191
9	* 0.4708	* 0.5475	* 0.5453	* 0.6845	* 0.6327	* 0.6197	* 0.6283	* 0.3625
	* 4.2375	* 4.0445	* 3.9847	* 3.5524	* 3.6136	* 3.5964	* 3.5902	* 5.2055
10	* 0.5234	* 0.5454	* 0.4280	* 0.5717	* 0.7085	* 0.6333	* 0.6723	* 0.3706
	* 4.2854	* 3.9839	* 4.3259	* 3.9360	* 3.4362	* 3.5243	* 3.6055	* 5.3576
11	* 0.6015	* 0.6845	* 0.5718	* 0.6299	* 0.5862	* 0.6892	* 0.6523	* 0.3488
	* 3.8024	* 3.5522	* 3.9356	* 3.8254	* 3.8227	* 3.4847	* 3.6823	* 5.8278
12	* 0.7076	* 0.6327	* 0.7086	* 0.5863	* 0.4582	* 0.5703	* 0.4367	
	* 3.4405	* 3.6134	* 3.4361	* 3.8226	* 3.7951	* 3.9004	* 4.5613	
13	* 0.5907	* 0.6197	* 0.6334	* 0.6892	* 0.5703	* 0.3684	* 0.2550	
	* 3.5876	* 3.5962	* 3.5240	* 3.4845	* 3.9005	* 4.6548	* 7.6483	
14	* 0.5040	* 0.6284	* 0.6723	* 0.6523	* 0.4368	* 0.2550		
	* 3.5719	* 3.5901	* 3.6052	* 3.6821	* 4.5606	* 7.6481		
15	* 0.2764	* 0.3624	* 0.3709	* 0.3490	F-SUB-Q			
	* 5.1191	* 5.2026	* 5.3582	* 5.8293	M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.8349	* 0.8914	* 0.9755	* 1.1296	* 1.4210	* 1.1808	* 1.0353	* 0.5571
	* 1.9792	* 2.2771	* 2.3698	* 2.0886	* 1.7655	* 1.8253	* 1.7385	* 2.6019
9	* 0.8914	* 1.1024	* 1.0940	* 1.3763	* 1.2063	* 1.2362	* 1.3304	* 0.7311
	* 2.2771	* 2.0442	* 2.0410	* 1.8201	* 1.9539	* 1.8218	* 1.7462	* 2.6428
10	* 0.9755	* 1.0942	* 0.7959	* 1.0763	* 1.4267	* 1.2970	* 1.4333	* 0.7526
	* 2.3698	* 2.0406	* 2.3952	* 2.1493	* 1.7922	* 1.8097	* 1.7694	* 2.7417
11	* 1.1296	* 1.3763	* 1.0764	* 1.3081	* 1.1079	* 1.4185	* 1.3997	* 0.6903
	* 2.0886	* 1.8201	* 2.1491	* 1.8815	* 2.1229	* 1.7760	* 1.8010	* 3.0920
12	* 1.4210	* 1.2063	* 1.4268	* 1.1079	* 0.9325	* 1.2084	* 0.8901	
	* 1.7655	* 1.9538	* 1.7922	* 2.1228	* 1.9343	* 1.8733	* 2.3493	
13	* 1.1808	* 1.2362	* 1.2971	* 1.4186	* 1.2084	* 0.7336	* 0.4949	
	* 1.8253	* 1.8217	* 1.8095	* 1.7760	* 1.8733	* 2.3705	* 4.0417	
14	* 1.0353	* 1.3305	* 1.4334	* 1.3998	* 0.8901	* 0.4948		
	* 1.7385	* 1.7462	* 1.7693	* 1.8009	* 2.3489	* 4.0418		
15	* 0.5571	* 0.7309	* 0.7535	* 0.6907	F-SUB-Q			
	* 2.6019	* 2.6414	* 2.7418	* 3.0925	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.9751	* 1.0175	* 1.1251	* 1.3039	* 1.6565	* 1.3537	* 1.2398	* 0.6717
	* 1.7596	* 2.0399	* 2.1029	* 1.8578	* 1.5522	* 1.6025	* 1.5033	* 2.2516
9	* 1.0175	* 1.2802	* 1.2555	* 1.6047	* 1.3840	* 1.4192	* 1.5677	* 0.8766
	* 2.0399	* 1.8000	* 1.8233	* 1.6007	* 1.7465	* 1.6103	* 1.5073	* 2.2806
10	* 1.1251	* 1.2557	* 0.9451	* 1.2510	* 1.6664	* 1.5060	* 1.6874	* 0.8811
	* 2.1029	* 1.8231	* 2.1240	* 1.9083	* 1.5767	* 1.6034	* 1.5389	* 2.3547
11	* 1.3039	* 1.6047	* 1.2511	* 1.5241	* 1.2935	* 1.6719	* 1.6514	* 0.8220
	* 1.8578	* 1.6007	* 1.9080	* 1.6515	* 1.8786	* 1.5492	* 1.5684	* 2.6735
12	* 1.6565	* 1.3840	* 1.6665	* 1.2935	* 1.0885	* 1.4146	* 1.0575	*
	* 1.5522	* 1.7465	* 1.5767	* 1.8785	* 1.7585	* 1.6383	* 2.0329	*
13	* 1.3537	* 1.4193	* 1.5062	* 1.6720	* 1.4146	* 0.8490	* 0.5787	*
	* 1.6025	* 1.6102	* 1.6032	* 1.5491	* 1.6383	* 2.0964	* 3.5168	*
14	* 1.2398	* 1.5679	* 1.6875	* 1.6516	* 1.0575	* 0.5786	*	*
	* 1.5033	* 1.5072	* 1.5388	* 1.5683	* 2.0326	* 3.5169	*	*
15	* 0.6717	* 0.8765	* 0.8823	* 0.8226	* F-SUB-Q			
	* 2.2516	* 2.2793	* 2.3544	* 2.6740	* M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0442	* 1.0676	* 1.1785	* 1.3768	* 1.7842	* 1.4273	* 1.3476	* 0.7098
	* 1.6917	* 2.0048	* 2.0829	* 1.8218	* 1.4911	* 1.5564	* 1.4239	* 2.2086
9	* 1.0676	* 1.3767	* 1.3297	* 1.7298	* 1.4615	* 1.5031	* 1.7081	* 0.9147
	* 2.0048	* 1.7307	* 1.7859	* 1.5369	* 1.7112	* 1.5660	* 1.4294	* 2.2433
10	* 1.1785	* 1.3298	* 0.9944	* 1.3145	* 1.7958	* 1.5985	* 1.8333	* 0.9219
	* 2.0829	* 1.7857	* 2.0905	* 1.8692	* 1.5059	* 1.5550	* 1.4607	* 2.3457
11	* 1.3768	* 1.7298	* 1.3146	* 1.6427	* 1.3586	* 1.8113	* 1.7935	* 0.8536
	* 1.8218	* 1.5369	* 1.8689	* 1.5816	* 1.8422	* 1.4705	* 1.4850	* 2.6539
12	* 1.7842	* 1.4615	* 1.7959	* 1.3587	* 1.1403	* 1.5279	* 1.1008	*
	* 1.4911	* 1.7111	* 1.5058	* 1.8421	* 1.7150	* 1.5614	* 2.0079	*
13	* 1.4273	* 1.5032	* 1.5987	* 1.8114	* 1.5279	* 0.8773	* 0.5926	*
	* 1.5564	* 1.5660	* 1.5548	* 1.4704	* 1.5614	* 2.0825	* 3.5168	*
14	* 1.3476	* 1.7082	* 1.8334	* 1.7936	* 1.1008	* 0.5925	*	*
	* 1.4239	* 1.4294	* 1.4606	* 1.4849	* 2.0076	* 3.5169	*	*
15	* 0.7098	* 0.9145	* 0.9234	* 0.8542	* F-SUB-Q			
	* 2.2086	* 2.2422	* 2.3445	* 2.6543	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0590	* 1.0759	* 1.1960	* 1.3884	* 1.8092	* 1.4430	* 1.3954	* 0.7426
	* 1.7515	* 2.0905	* 2.1629	* 1.8941	* 1.5429	* 1.6159	* 1.4631	* 2.2833
9	* 1.0759	* 1.4001	* 1.3461	* 1.7556	* 1.4734	* 1.5194	* 1.7523	* 0.9362
	* 2.0905	* 1.7926	* 1.8630	* 1.5881	* 1.7783	* 1.6249	* 1.4694	* 2.3150
10	* 1.1960	* 1.3462	* 1.0155	* 1.3333	* 1.8169	* 1.6080	* 1.8631	* 0.9369
	* 2.1629	* 1.8628	* 2.1825	* 1.9393	* 1.5491	* 1.6063	* 1.4966	* 2.4157
11	* 1.3884	* 1.7556	* 1.3335	* 1.6653	* 1.3711	* 1.8327	* 1.8173	* 0.8656
	* 1.8941	* 1.5880	* 1.9390	* 1.6330	* 1.8973	* 1.5070	* 1.5196	* 2.7226
12	* 1.8092	* 1.4734	* 1.8169	* 1.3712	* 1.1450	* 1.5403	* 1.1073	
	* 1.5429	* 1.7783	* 1.5491	* 1.8972	* 1.7819	* 1.6078	* 2.0689	
13	* 1.4430	* 1.5195	* 1.6082	* 1.8328	* 1.5404	* 0.8752	* 0.5894	
	* 1.6159	* 1.6248	* 1.6061	* 1.5069	* 1.6079	* 2.1613	* 3.6680	
14	* 1.3954	* 1.7524	* 1.8633	* 1.8174	* 1.1074	* 0.5893		
	* 1.4631	* 1.4694	* 1.4965	* 1.5195	* 2.0687	* 3.6682		
15	* 0.7426	* 0.9360	* 0.9384	* 0.8661	* F-SUB-Q			
	* 2.2833	* 2.3139	* 2.4151	* 2.7231	* M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0634	* 1.0893	* 1.2108	* 1.3883	* 1.8117	* 1.4578	* 1.4814	* 0.8066
	* 1.8593	* 2.2230	* 2.2805	* 1.9990	* 1.6324	* 1.7113	* 1.5441	* 2.4054
9	* 1.0893	* 1.4154	* 1.3609	* 1.7608	* 1.4730	* 1.5331	* 1.7858	* 0.9638
	* 2.2230	* 1.9009	* 1.9816	* 1.6742	* 1.8763	* 1.7200	* 1.5496	* 2.4319
10	* 1.2108	* 1.3611	* 1.0616	* 1.3452	* 1.8108	* 1.5968	* 1.8591	* 0.9487
	* 2.2805	* 1.9813	* 2.3082	* 2.0420	* 1.6369	* 1.7010	* 1.5692	* 2.5275
11	* 1.3883	* 1.7608	* 1.3454	* 1.6697	* 1.3678	* 1.8173	* 1.8048	* 0.8690
	* 1.9990	* 1.6742	* 2.0417	* 1.7271	* 2.0002	* 1.5941	* 1.6046	* 2.8534
12	* 1.8117	* 1.4729	* 1.8108	* 1.3678	* 1.1337	* 1.5212	* 1.1004	
	* 1.6324	* 1.8762	* 1.6369	* 2.0002	* 1.8951	* 1.7037	* 2.1827	
13	* 1.4578	* 1.5332	* 1.5970	* 1.8174	* 1.5212	* 0.8633	* 0.5816	
	* 1.7113	* 1.7199	* 1.7008	* 1.5940	* 1.7037	* 2.2906	* 3.8856	
14	* 1.4814	* 1.7859	* 1.8592	* 1.8049	* 1.1004	* 0.5814		
	* 1.5441	* 1.5496	* 1.5691	* 1.6045	* 2.1824	* 3.8859		
15	* 0.8066	* 0.9636	* 0.9501	* 0.8695	* F-SUB-Q			
	* 2.4054	* 2.4307	* 2.5270	* 2.8539	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0759	* 1.0987	* 1.2230	* 1.3965	* 1.8332	* 1.4948	* 1.6522	* 0.9144
	* 1.9748	* 2.3734	* 2.4151	* 2.1113	* 1.7067	* 1.8041	* 1.6210	* 2.5619
9	* 1.0987	* 1.4769	* 1.3942	* 1.7857	* 1.4821	* 1.5710	* 1.8549	* 0.9789
	* 2.3734	* 2.0129	* 2.0815	* 1.7562	* 1.9803	* 1.8007	* 1.6214	* 2.5870
10	* 1.2230	* 1.3944	* 1.1521	* 1.3520	* 1.8218	* 1.5962	* 1.8822	* 0.9563
	* 2.4151	* 2.0811	* 2.4402	* 2.1579	* 1.7236	* 1.8008	* 1.6377	* 2.6687
11	* 1.3965	* 1.7857	* 1.3522	* 1.6953	* 1.3543	* 1.8157	* 1.8065	* 0.8618
	* 2.1113	* 1.7562	* 2.1576	* 1.8194	* 2.1481	* 1.6921	* 1.6997	* 3.0488
12	* 1.8332	* 1.4820	* 1.8218	* 1.3543	* 1.1158	* 1.5114	* 1.0811	*
	* 1.7067	* 1.9803	* 1.7236	* 2.1480	* 2.0185	* 1.8033	* 2.3564	*
13	* 1.4948	* 1.5711	* 1.5964	* 1.8158	* 1.5114	* 0.8439	* 0.5661	*
	* 1.8041	* 1.8006	* 1.8007	* 1.6921	* 1.8033	* 2.4561	* 4.1885	*
14	* 1.6522	* 1.8549	* 1.8823	* 1.8067	* 1.0811	* 0.5660	*	*
	* 1.6210	* 1.6214	* 1.6376	* 1.6996	* 2.3561	* 4.1888	*	*
15	* 0.9144	* 0.9786	* 0.9578	* 0.8623	* F-SUB-Q			
	* 2.5619	* 2.5859	* 2.6682	* 3.0494	* M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.0851	* 1.1117	* 1.2363	* 1.4023	* 1.8458	* 1.5742	* 1.8828	* 0.9937
	* 2.1072	* 2.5397	* 2.6022	* 2.2740	* 1.8281	* 1.9198	* 1.7144	* 2.7117
9	* 1.1117	* 1.5217	* 1.4191	* 1.8011	* 1.4882	* 1.5998	* 1.9056	* 1.0055
	* 2.5397	* 2.1512	* 2.2391	* 1.8862	* 2.1318	* 1.9272	* 1.7198	* 2.7423
10	* 1.2363	* 1.4194	* 1.2098	* 1.3615	* 1.8238	* 1.5984	* 1.9011	* 0.9736
	* 2.6022	* 2.2386	* 2.6268	* 2.3286	* 1.8409	* 1.9249	* 1.7519	* 2.8545
11	* 1.4023	* 1.8011	* 1.3618	* 1.7087	* 1.3444	* 1.8053	* 1.7987	* 0.8577
	* 2.2740	* 1.8862	* 2.3282	* 1.9479	* 2.3150	* 1.8233	* 1.8262	* 3.2611
12	* 1.8458	* 1.4882	* 1.8239	* 1.3444	* 1.1002	* 1.4950	* 1.0668	*
	* 1.8281	* 2.1319	* 1.8409	* 2.3149	* 2.1567	* 1.9203	* 2.5376	*
13	* 1.5742	* 1.5999	* 1.5985	* 1.8053	* 1.4950	* 0.8283	* 0.5547	*
	* 1.9198	* 1.9271	* 1.9248	* 1.8232	* 1.9203	* 2.6325	* 4.4902	*
14	* 1.8828	* 1.9057	* 1.9012	* 1.7988	* 1.0668	* 0.5546	*	*
	* 1.7144	* 1.7198	* 1.7518	* 1.8261	* 2.5373	* 4.4905	*	*
15	* 0.9937	* 1.0050	* 0.9748	* 0.8582	* F-SUB-Q			
	* 2.7117	* 2.7411	* 2.8538	* 3.2616	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0937	1.1157	1.2413	1.4059	1.8606	1.6129	1.9492	1.0284
	2.2853	2.7631	2.8233	2.4499	1.9667	2.0815	1.8480	2.9412
9	1.1157	1.5480	1.4338	1.8145	1.4921	1.6158	1.9464	1.0300
	2.7631	2.3300	2.4234	2.0245	2.2953	2.0817	1.8565	2.9788
10	1.2413	1.4341	1.2244	1.3660	1.8277	1.6020	1.9156	0.9769
	2.8233	2.4228	2.8578	2.5073	1.9823	2.0751	1.8729	3.1022
11	1.4059	1.8145	1.3663	1.7172	1.3324	1.7993	1.7951	0.8478
	2.4499	2.0245	2.5069	2.1097	2.5291	1.9777	1.9757	3.5530
12	1.8606	1.4920	1.8278	1.3324	1.0846	1.4840	1.0510	
	1.9667	2.2954	1.9823	2.5290	2.3419	2.0758	2.7650	
13	1.6129	1.6159	1.6021	1.7994	1.4839	0.8134	0.5436	
	2.0815	2.0816	2.0750	1.9776	2.0758	2.8689	4.9004	
14	1.9492	1.9465	1.9157	1.7952	1.0510	0.5435		
	1.8480	1.8565	1.8729	1.9756	2.7648	4.9007		
15	1.0284	1.0297	0.9785	0.8484	F-SUB-Q			
	2.9412	2.9775	3.1004	3.5536	M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0875	1.1296	1.2482	1.3932	1.8368	1.6081	1.9414	1.0443
	2.5495	3.0677	3.0721	2.7015	2.1692	2.2742	2.0286	3.1790
9	1.1296	1.5341	1.4230	1.7899	1.4773	1.6025	1.9329	1.0485
	3.0677	2.5969	2.6708	2.2427	2.5313	2.2806	2.0334	3.2020
10	1.2482	1.4233	1.2333	1.3643	1.7968	1.5829	1.8874	0.9960
	3.0721	2.6701	3.1022	2.7512	2.2050	2.2887	2.0685	3.3000
11	1.3932	1.7899	1.3645	1.6896	1.3299	1.7629	1.7584	0.8548
	2.7015	2.2427	2.7508	2.3416	2.7804	2.2123	2.2072	3.8444
12	1.8368	1.4772	1.7968	1.3300	1.0772	1.4524	1.0500	
	2.1692	2.5314	2.2050	2.7803	2.6053	2.3143	3.0121	
13	1.6081	1.6026	1.5830	1.7629	1.4524	0.8096	0.5428	
	2.2742	2.2805	2.2886	2.2122	2.3143	3.1394	5.3364	
14	1.9414	1.9329	1.8874	1.7584	1.0500	0.5427		
	2.0286	2.0334	2.0685	2.2071	3.0118	5.3368		
15	1.0443	1.0481	0.9973	0.8553	F-SUB-Q			
	3.1790	3.2006	3.2993	3.8452	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0980	1.1137	1.2341	1.3897	1.8466	1.6107	1.9611	1.0361
	2.7625	3.3238	3.4468	2.9994	2.3825	2.4949	2.2032	3.5076
9	1.1137	1.5486	1.4260	1.8006	1.4737	1.6039	1.9506	1.0365
	3.3238	2.7888	2.9564	2.4699	2.8082	2.5128	2.2136	3.5478
10	1.2341	1.4264	1.2186	1.3484	1.8034	1.5798	1.8984	0.9733
	3.4468	2.9556	3.4823	3.0848	2.4348	2.5332	2.2692	3.7137
11	1.3897	1.8006	1.3487	1.6985	1.3087	1.7681	1.7663	0.8352
	2.9994	2.4699	3.0843	2.5559	3.0907	2.4439	2.4306	4.3451
12	1.8466	1.4736	1.8034	1.3087	1.0658	1.4565	1.0296	
	2.3825	2.8083	2.4348	3.0907	2.8644	2.5263	3.3545	
13	1.6107	1.6040	1.5798	1.7681	1.4564	0.7975	0.5300	
	2.4949	2.5127	2.5331	2.4438	2.5264	3.5078	5.9815	
14	1.9611	1.9506	1.8985	1.7664	1.0295	0.5299		
	2.2032	2.2136	2.2691	2.4305	3.3542	5.9820		
15	1.0361	1.0360	0.9748	0.8357	F-SUB-Q			
	3.5076	3.5465	3.7122	4.3458	M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1073	1.1090	1.2253	1.3758	1.8294	1.5947	1.9460	1.0274
	2.7711	3.3368	3.5876	3.1646	2.5551	2.7159	2.4185	3.8399
9	1.1090	1.5413	1.4152	1.7858	1.4582	1.5873	1.9347	1.0281
	3.3368	2.7965	3.0697	2.6214	2.9836	2.7422	2.4354	3.8859
10	1.2253	1.4156	1.2093	1.3349	1.7859	1.5622	1.8807	0.9650
	3.5876	3.0688	3.6166	3.2389	2.5644	2.7564	2.5209	4.0956
11	1.3758	1.7858	1.3352	1.6857	1.2962	1.7513	1.7498	0.8271
	3.1646	2.6214	3.2386	2.5769	3.1372	2.5263	2.5686	4.7926
12	1.8294	1.4581	1.7859	1.2962	1.0667	1.4469	1.0208	
	2.5551	2.9837	2.5644	3.1372	2.9565	2.6067	3.4425	
13	1.5947	1.5874	1.5623	1.7513	1.4468	0.7973	0.5256	
	2.7159	2.7421	2.7562	2.5263	2.6067	3.6213	6.1606	
14	1.9460	1.9347	1.8808	1.7499	1.0207	0.5255		
	2.4185	2.4354	2.5208	2.5685	3.4422	6.1611		
15	1.0274	1.0277	0.9663	0.8276	F-SUB-Q			
	3.8399	3.8845	4.0943	4.7935	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1091	1.1133	1.2205	1.3545	1.7928	1.5662	1.9069	1.0199
	2.8132	3.3750	3.4465	3.0645	2.4839	2.6316	2.3476	3.6791
9	1.1133	1.5177	1.3942	1.7518	1.4340	1.5583	1.8957	1.0237
	3.3750	2.8393	3.0041	2.5475	2.8921	2.6591	2.3655	3.7132
10	1.2205	1.3946	1.2047	1.3262	1.7503	1.5343	1.8423	0.9682
	3.4465	3.0031	3.4974	3.1557	2.5725	2.7117	2.4535	3.8905
11	1.3545	1.7518	1.3265	1.6563	1.2905	1.7179	1.7153	0.8266
	3.0645	2.5475	3.1552	2.6216	3.1650	2.5733	2.6163	4.6297
12	1.7928	1.4339	1.7503	1.2905	1.0713	1.4256	1.0206	
	2.4839	2.8922	2.5725	3.1650	3.0072	2.6579	3.4482	
13	1.5662	1.5585	1.5344	1.7179	1.4256	0.8033	0.5273	
	2.6316	2.6589	2.7116	2.5733	2.6579	3.6381	6.1700	
14	1.9069	1.8957	1.8423	1.7154	1.0205	0.5271		
	2.3476	2.3655	2.4535	2.6162	3.4479	6.1706		
15	1.0199	1.0233	0.9694	0.8271	F-SUB-Q			
	3.6791	3.7118	3.8896	4.6306	M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1166	1.0938	1.2017	1.3449	1.7905	1.5548	1.9074	1.0006
	2.7777	3.3436	3.3726	2.9718	2.3933	2.5490	2.2566	3.6057
9	1.0938	1.5249	1.3906	1.7537	1.4234	1.5475	1.8963	1.0015
	3.3436	2.7966	2.9020	2.4505	2.8046	2.5755	2.2741	3.6501
10	1.2017	1.3910	1.1851	1.3064	1.7506	1.5249	1.8444	0.9399
	3.3726	2.9010	3.4251	3.0837	2.4768	2.6266	2.3585	3.8572
11	1.3449	1.7537	1.3067	1.6615	1.2694	1.7218	1.7217	0.8057
	2.9718	2.4505	3.0830	2.6003	3.1832	2.5616	2.5625	4.5768
12	1.7905	1.4233	1.7506	1.2694	1.0625	1.4344	1.0028	
	2.3932	2.8047	2.4768	3.1832	3.0090	2.6442	3.5035	
13	1.5548	1.5476	1.5249	1.7218	1.4344	0.7950	0.5171	
	2.5490	2.5753	2.6265	2.5616	2.6442	3.6883	6.2626	
14	1.9074	1.8963	1.8444	1.7218	1.0027	0.5170		
	2.2566	2.2741	2.3584	2.5624	3.5033	6.2632		
15	1.0006	1.0010	0.9413	0.8063	F-SUB-Q			
	3.6057	3.6489	3.8555	4.5776	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 10 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1191	1.0916	1.1921	1.3339	1.7795	1.5389	1.8938	0.9876
	2.4819	2.9865	3.2371	2.8638	2.3106	2.4752	2.1870	3.5058
9	1.0916	1.5240	1.3837	1.7453	1.4108	1.5319	1.8832	0.9857
	2.9865	2.5033	2.7797	2.3586	2.7093	2.5006	2.2040	3.5591
10	1.1921	1.3842	1.1744	1.2973	1.7410	1.5120	1.8341	0.9255
	3.2371	2.7787	3.2910	2.9679	2.3875	2.5481	2.2842	3.7598
11	1.3339	1.7452	1.2977	1.6576	1.2592	1.7165	1.7175	0.7953
	2.8638	2.3586	2.9672	2.3779	2.9192	2.3662	2.4004	4.4470
12	1.7795	1.4106	1.7410	1.2592	1.0580	1.4358	0.9967	
	2.3106	2.7095	2.3875	2.9192	2.7521	2.4219	3.2139	
13	1.5389	1.5320	1.5120	1.7165	1.4357	0.7934	0.5144	
	2.4752	2.5004	2.5480	2.3662	2.4220	3.3670	5.6815	
14	1.8938	1.8832	1.8341	1.7176	0.9966	0.5143		
	2.1870	2.2040	2.2842	2.4004	3.2138	5.6821		
15	0.9876	0.9853	0.9272	0.7958	F-SUB-Q			
	3.5058	3.5578	3.7567	4.4477	M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 9 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1310	1.0954	1.1927	1.3258	1.7681	1.5242	1.8774	0.9800
	2.2137	2.6637	2.8604	2.5662	2.0813	2.2540	1.9978	3.1750
9	1.0954	1.5265	1.3806	1.7368	1.4011	1.5178	1.8676	0.9820
	2.6637	2.2299	2.4642	2.1140	2.4358	2.2743	2.0106	3.2094
10	1.1927	1.3811	1.1759	1.2922	1.7331	1.5020	1.8228	0.9251
	2.8604	2.4633	2.9072	2.6485	2.1311	2.3052	2.0728	3.3702
11	1.3258	1.7368	1.2926	1.6573	1.2612	1.7135	1.7138	0.7965
	2.5662	2.1140	2.6478	2.1223	2.6101	2.1165	2.1463	3.9588
12	1.7681	1.4010	1.7331	1.2612	1.0683	1.4423	1.0025	
	2.0813	2.4359	2.1312	2.6101	2.4713	2.1728	2.8709	
13	1.5242	1.5180	1.5020	1.7135	1.4423	0.8038	0.5199	
	2.2540	2.2741	2.3052	2.1165	2.1728	3.0136	5.0950	
14	1.8774	1.8676	1.8228	1.7138	1.0024	0.5197		
	1.9978	2.0107	2.0728	2.1463	2.8708	5.0956		
15	0.9800	0.9816	0.9264	0.7971	F-SUB-Q			
	3.1750	3.2084	3.3690	3.9595	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1587	1.1217	1.2057	1.3216	1.7542	1.5112	1.8560	0.9806
	2.1365	2.5636	2.7050	2.4575	2.0012	2.1702	1.9282	3.0325
9	1.1217	1.5333	1.3815	1.7266	1.3951	1.5077	1.8476	0.9859
	2.5636	2.1537	2.3537	2.0291	2.3352	2.1889	1.9397	3.0553
10	1.2057	1.3820	1.1892	1.3024	1.7257	1.4959	1.8089	0.9379
	2.7050	2.3528	2.7482	2.5184	2.0554	2.2109	1.9943	3.1779
11	1.3216	1.7266	1.3027	1.6620	1.2811	1.7149	1.7119	0.8078
	2.4575	2.0291	2.5179	2.0561	2.5147	2.0535	2.0829	3.7352
12	1.7542	1.3950	1.7257	1.2811	1.0985	1.4606	1.0270	
	2.0012	2.3354	2.0554	2.5147	2.3930	2.1090	2.7412	
13	1.5112	1.5078	1.4959	1.7149	1.4606	0.8351	0.5380	
	2.1702	2.1888	2.2109	2.0535	2.1090	2.8881	4.8697	
14	1.8560	1.8475	1.8089	1.7120	1.0269	0.5378		
	1.9282	1.9397	1.9943	2.0829	2.7411	4.8702		
15	0.9806	0.9855	0.9391	0.8083	F-SUB-Q			
	3.0325	3.0543	3.1771	3.7360	M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2529	1.1550	1.2097	1.3341	1.7838	1.5207	1.8822	0.9724
	1.8813	2.2863	2.4257	2.1865	1.7661	1.9360	1.7060	2.7472
9	1.1550	1.5881	1.4076	1.7604	1.4076	1.5218	1.8752	0.9727
	2.2863	1.9025	2.0785	1.7867	2.0782	1.9505	1.7147	2.7825
10	1.2097	1.4082	1.1914	1.3123	1.7645	1.5148	1.8448	0.9202
	2.4257	2.0776	2.4677	2.2434	1.8067	1.9623	1.7560	2.9113
11	1.3341	1.7604	1.3126	1.7214	1.2968	1.7696	1.7638	0.8001
	2.1865	1.7867	2.2429	1.8098	2.2425	1.8074	1.8290	3.3944
12	1.7838	1.4074	1.7645	1.2968	1.1612	1.5443	1.0445	
	1.7661	2.0784	1.8066	2.2425	2.1263	1.8678	2.4875	
13	1.5207	1.5219	1.5148	1.7695	1.5443	0.8881	0.5527	
	1.9360	1.9504	1.9623	1.8075	1.8678	2.6150	4.4579	
14	1.8822	1.8752	1.8448	1.7638	1.0444	0.5525		
	1.7060	1.7147	1.7560	1.8290	2.4874	4.4584		
15	0.9724	0.9722	0.9219	0.8006	F-SUB-Q			
	2.7472	2.7816	2.9089	3.3949	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4380	* 1.2125	* 1.2288	* 1.3462	* 1.8001	* 1.5274	* 1.8925	* 0.9749
	* 1.6717	* 2.0362	* 2.1846	* 1.9790	* 1.5967	* 1.7592	* 1.5472	* 2.5034
9	* 1.2125	* 1.6382	* 1.4320	* 1.7813	* 1.4193	* 1.5332	* 1.8873	* 0.9755
	* 2.0362	* 1.6963	* 1.8687	* 1.6117	* 1.8822	* 1.7679	* 1.5540	* 2.5345
10	* 1.2288	* 1.4326	* 1.2099	* 1.3325	* 1.7999	* 1.5397	* 1.8661	* 0.9261
	* 2.1846	* 1.8679	* 2.2228	* 2.0224	* 1.6247	* 1.7726	* 1.5845	* 2.6436
11	* 1.3462	* 1.7813	* 1.3328	* 1.7772	* 1.3348	* 1.8172	* 1.8052	* 0.8099
	* 1.9790	* 1.6117	* 2.0218	* 1.6291	* 2.0230	* 1.6300	* 1.6516	* 3.0677
12	* 1.8001	* 1.4192	* 1.7999	* 1.3348	* 1.3113	* 1.6547	* 1.0852	
	* 1.5967	* 1.8823	* 1.6247	* 2.0230	* 1.9012	* 1.6694	* 2.2371	
13	* 1.5274	* 1.5333	* 1.5398	* 1.8172	* 1.6547	* 0.9972	* 0.5835	
	* 1.7592	* 1.7678	* 1.7726	* 1.6301	* 1.6695	* 2.3458	* 4.0066	
14	* 1.8925	* 1.8873	* 1.8662	* 1.8052	* 1.0850	* 0.5833		
	* 1.5472	* 1.5540	* 1.5845	* 1.6516	* 2.2370	* 4.0071		
15	* 0.9749	* 0.9751	* 0.9279	* 0.8105				F-SUB-Q
	* 2.5034	* 2.5337	* 2.6415	* 3.0681				M-SUB-Q

AT 50% POWER, 465 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6703	* 1.2921	* 1.2578	* 1.3520	* 1.7922	* 1.5252	* 1.8762	* 0.9853
	* 1.5469	* 1.8791	* 1.9817	* 1.8285	* 1.4868	* 1.6336	* 1.4461	* 2.2995
9	* 1.2921	* 1.6736	* 1.4454	* 1.7774	* 1.4240	* 1.5348	* 1.8726	* 0.9923
	* 1.8791	* 1.5779	* 1.7181	* 1.4975	* 1.7406	* 1.6378	* 1.4511	* 2.3137
10	* 1.2578	* 1.4460	* 1.2403	* 1.3504	* 1.8146	* 1.5535	* 1.8593	* 0.9533
	* 1.9817	* 1.7173	* 2.0137	* 1.8519	* 1.5033	* 1.6348	* 1.4733	* 2.3847
11	* 1.3520	* 1.7774	* 1.3508	* 1.8044	* 1.3821	* 1.8365	* 1.8170	* 0.8342
	* 1.8285	* 1.4975	* 1.8515	* 1.5051	* 1.8469	* 1.5030	* 1.5203	* 2.7660
12	* 1.7922	* 1.4239	* 1.8146	* 1.3821	* 1.4326	* 1.7443	* 1.1369	
	* 1.4868	* 1.7407	* 1.5032	* 1.8469	* 1.7587	* 1.5535	* 2.0362	
13	* 1.5252	* 1.5349	* 1.5536	* 1.8365	* 1.7442	* 1.0975	* 0.6219	
	* 1.6336	* 1.6377	* 1.6348	* 1.5030	* 1.5536	* 2.1298	* 3.6339	
14	* 1.8762	* 1.8726	* 1.8594	* 1.8170	* 1.1368	* 0.6217		
	* 1.4461	* 1.4511	* 1.4733	* 1.5203	* 2.0361	* 3.6343		
15	* 0.9853	* 0.9918	* 0.9546	* 0.8347				F-SUB-Q
	* 2.2995	* 2.3129	* 2.3842	* 2.7665				M-SUB-Q

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7490	* 1.3401	* 1.2526	* 1.3563	* 1.8044	* 1.5282	* 1.8828	* 0.9718
	* 1.4328	* 1.7387	* 1.8717	* 1.7155	* 1.3885	* 1.5341	* 1.3547	* 2.1970
9	* 1.3401	* 1.7288	* 1.4621	* 1.7926	* 1.4290	* 1.5413	* 1.8805	* 0.9748
	* 1.7387	* 1.4474	* 1.5965	* 1.3959	* 1.6321	* 1.5340	* 1.3585	* 2.2191
10	* 1.2526	* 1.4628	* 1.2349	* 1.3549	* 1.8405	* 1.5668	* 1.8735	* 0.9321
	* 1.8717	* 1.5957	* 1.9032	* 1.7363	* 1.3969	* 1.5209	* 1.3735	* 2.2976
11	* 1.3563	* 1.7926	* 1.3552	* 1.8394	* 1.3852	* 1.8651	* 1.8412	* 0.8199
	* 1.7155	* 1.3959	* 1.7359	* 1.3901	* 1.7271	* 1.3922	* 1.4119	* 2.6490
12	* 1.8044	* 1.4288	* 1.8405	* 1.3852	* 1.4831	* 1.8063	* 1.1380	
	* 1.3885	* 1.6323	* 1.3969	* 1.7271	* 1.6327	* 1.4366	* 1.9156	
13	* 1.5282	* 1.5414	* 1.5668	* 1.8651	* 1.8062	* 1.1252	* 0.6276	
	* 1.5341	* 1.5339	* 1.5209	* 1.3922	* 1.4367	* 2.0162	* 3.4525	
14	* 1.8828	* 1.8805	* 1.8735	* 1.8413	* 1.1378	* 0.6274		
	* 1.3547	* 1.3585	* 1.3735	* 1.4119	* 1.9155	* 3.4530		
15	* 0.9718	* 0.9742	* 0.9335	* 0.8205	* F-SUB-Q			
	* 2.1970	* 2.2185	* 2.2964	* 2.6494	* M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6923	* 1.3084	* 1.2066	* 1.3060	* 1.7230	* 1.4706	* 1.7880	* 0.9284
	* 1.4111	* 1.7001	* 1.8515	* 1.6990	* 1.3855	* 1.5201	* 1.3595	* 2.1979
9	* 1.3084	* 1.6686	* 1.4171	* 1.7125	* 1.3772	* 1.4834	* 1.7867	* 0.9286
	* 1.7001	* 1.4310	* 1.5686	* 1.3918	* 1.6148	* 1.5196	* 1.3624	* 2.2262
10	* 1.2066	* 1.4178	* 1.1929	* 1.3076	* 1.7605	* 1.5098	* 1.7844	* 0.8918
	* 1.8515	* 1.5678	* 1.8744	* 1.7151	* 1.3859	* 1.5000	* 1.3728	* 2.2942
11	* 1.3060	* 1.7125	* 1.3078	* 1.7627	* 1.3387	* 1.7815	* 1.7534	* 0.7820
	* 1.6990	* 1.3918	* 1.7147	* 1.3835	* 1.7071	* 1.3871	* 1.4101	* 2.6510
12	* 1.7230	* 1.3770	* 1.7605	* 1.3387	* 1.4489	* 1.7393	* 1.0965	
	* 1.3855	* 1.6149	* 1.3859	* 1.7071	* 1.5943	* 1.4226	* 1.9002	
13	* 1.4706	* 1.4835	* 1.5099	* 1.7814	* 1.7393	* 1.0983	* 0.6105	
	* 1.5201	* 1.5195	* 1.5000	* 1.3871	* 1.4226	* 1.9732	* 3.4008	
14	* 1.7880	* 1.7867	* 1.7844	* 1.7534	* 1.0964	* 0.6103		
	* 1.3595	* 1.3624	* 1.3728	* 1.4101	* 1.9001	* 3.4012		
15	* 0.9284	* 0.9282	* 0.8926	* 0.7826	* F-SUB-Q			
	* 2.1979	* 2.2255	* 2.2946	* 2.6513	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-1 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - NORMAL OPERATION

AT 50% POWER, 465 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4313	1.1366	1.0495	1.1257	1.4546	1.2627	1.4968	0.7919
	1.6074	1.8885	2.0474	1.8983	1.5787	1.7042	1.5626	2.4887
9	1.1366	1.4152	1.2313	1.4459	1.1919	1.2740	1.4961	0.7964
	1.8885	1.6233	1.7381	1.5853	1.7968	1.7021	1.5654	2.5093
10	1.0495	1.2318	1.0377	1.1281	1.4805	1.2976	1.4953	0.7628
	2.0474	1.7373	2.0756	1.9118	1.5797	1.6765	1.5751	2.5909
11	1.1257	1.4459	1.1284	1.4922	1.1565	1.4914	1.4636	0.6624
	1.8983	1.5853	1.9114	1.5649	1.8950	1.5833	1.6213	3.0195
12	1.4546	1.1917	1.4805	1.1565	1.2705	1.4680	0.9299	
	1.5787	1.7969	1.5798	1.8950	1.7532	1.6250	2.1629	
13	1.2627	1.2741	1.2976	1.4914	1.4679	0.9487	0.5258	
	1.7042	1.7020	1.6765	1.5833	1.6250	2.2071	3.8264	
14	1.4968	1.4961	1.4954	1.4637	0.9298	0.5257		
	1.5626	1.5654	1.5751	1.6212	2.1628	3.8268		
15	0.7919	0.7958	0.7638	0.6629	F-SUB-Q			
	2.4887	2.5090	2.5904	3.0198	M-SUB-Q			

AT 50% POWER, 465 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.6561	0.5603	0.5313	0.5660	0.6658	0.5839	0.6483	0.3725
	3.3755	3.6862	3.9078	3.6483	3.3321	3.5547	3.4757	5.1186
9	0.5603	0.6455	0.5721	0.6599	0.5866	0.5885	0.6480	0.3739
	3.6862	3.4240	3.6088	3.3529	3.5268	3.5530	3.4816	5.1703
10	0.5313	0.5723	0.5258	0.5668	0.6745	0.5957	0.6459	0.3626
	3.9078	3.6074	3.9605	3.6730	3.3399	3.5182	3.5112	5.2694
11	0.5660	0.6599	0.5669	0.6598	0.5799	0.6748	0.6257	0.3208
	3.6483	3.3528	3.6724	3.4038	3.6451	3.3683	3.6536	6.0358
12	0.6658	0.5866	0.6745	0.5799	0.5833	0.6354	0.4367	
	3.3321	3.5269	3.3398	3.6451	3.6830	3.6159	4.4380	
13	0.5839	0.5885	0.5958	0.6748	0.6354	0.4484	0.2601	
	3.5547	3.5528	3.5181	3.3683	3.6160	4.5234	7.5203	
14	0.6483	0.6480	0.6459	0.6258	0.4367	0.2601		
	3.4757	3.4816	3.5112	3.6535	4.4378	7.5205		
15	0.3725	0.3737	0.3628	0.3210	F-SUB-Q			
	5.1186	5.1685	5.2721	6.0375	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2
 M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
 THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 3.1365	* 3.8935	* 4.1841	* 3.9626	* 3.2429	* 4.0113	* 3.6351	* 6.4421
	* 3.7709	* 4.5494	* 4.8930	* 4.6059	* 3.8531	* 4.6445	* 4.3592	* 7.3650
	* 4.0991	* 4.8281	* 5.1990	* 4.8775	* 4.1773	* 4.8834	* 4.6409	* 7.7067
	* 4.0386	* 4.5958	* 4.9523	* 4.6530	* 4.1446	* 4.6305	* 4.5016	* 7.2358
	* 3.8313	* 4.2630	* 4.5975	* 4.3479	* 3.9796	* 4.3143	* 4.3156	* 6.6557
	* 3.4255	* 3.7296	* 4.0090	* 3.8641	* 3.6472	* 3.8353	* 3.9274	* 5.7712
	* 2.8632	* 3.0882	* 3.3272	* 3.2591	* 3.1534	* 3.2652	* 3.4030	* 4.7345

9	* 3.8935	* 3.2495	* 3.9735	* 3.2654	* 3.8538	* 4.0905	* 3.6480	* 6.4285
	* 4.5494	* 3.9036	* 4.6287	* 3.8962	* 4.4639	* 4.6947	* 4.3703	* 7.3382
	* 4.8281	* 4.2447	* 4.9071	* 4.2153	* 4.7107	* 4.9084	* 4.6477	* 7.6673
	* 4.5958	* 4.1931	* 4.6717	* 4.1621	* 4.4821	* 4.6229	* 4.5014	* 7.1853
	* 4.2630	* 4.0112	* 4.3459	* 3.9993	* 4.1889	* 4.2908	* 4.3090	* 6.6185
	* 3.7296	* 3.6179	* 3.8318	* 3.6472	* 3.7274	* 3.7980	* 3.9143	* 5.7752
	* 3.0882	* 3.0683	* 3.1963	* 3.1451	* 3.1695	* 3.2318	* 3.4147	* 4.7623

10	* 4.1841	* 3.9728	* 4.2735	* 4.0320	* 3.2640	* 4.0390	* 3.7419	* 6.6954
	* 4.8930	* 4.6278	* 4.9863	* 4.6657	* 3.8789	* 4.6274	* 4.4539	* 7.6146
	* 5.1990	* 4.9061	* 5.2849	* 4.9155	* 4.1814	* 4.8336	* 4.7061	* 7.9305
	* 4.9523	* 4.6707	* 5.0227	* 4.6499	* 4.1173	* 4.5353	* 4.5185	* 7.4017
	* 4.5975	* 4.3450	* 4.6605	* 4.3171	* 3.9330	* 4.1954	* 4.2946	* 6.7995
	* 4.0090	* 3.8310	* 4.0748	* 3.8194	* 3.5863	* 3.7103	* 3.9033	* 5.9144
	* 3.3272	* 3.1957	* 3.3865	* 3.2265	* 3.1036	* 3.1640	* 3.4064	* 4.8865

11	* 3.9626	* 3.2652	* 4.0314	* 3.3661	* 4.0429	* 3.3977	* 3.9183	* 7.7210
	* 4.6059	* 3.8959	* 4.6650	* 3.9763	* 4.6472	* 4.0463	* 4.6352	* 8.7295
	* 4.8775	* 4.2151	* 4.9149	* 4.2741	* 4.8672	* 4.3078	* 4.8716	* 9.0333
	* 4.6530	* 4.1619	* 4.6495	* 4.1818	* 4.5713	* 4.1729	* 4.6157	* 8.3506
	* 4.3479	* 3.9990	* 4.3168	* 3.9763	* 4.2279	* 3.9832	* 4.3359	* 7.5930
	* 3.8641	* 3.6469	* 3.8191	* 3.6036	* 3.7332	* 3.6061	* 3.9252	* 6.5255
	* 3.2591	* 3.1449	* 3.2264	* 3.0952	* 3.1537	* 3.1345	* 3.4591	* 5.3360

12	* 3.2429	* 3.8536	* 3.2637	* 4.0426	* 4.1584	* 3.7160	* 5.3220	*
	* 3.8531	* 4.4637	* 3.8785	* 4.6468	* 4.7488	* 4.4077	* 6.0632	*
	* 4.1773	* 4.7105	* 4.1810	* 4.8669	* 4.9368	* 4.6326	* 6.3289	*
	* 4.1446	* 4.4819	* 4.1171	* 4.5710	* 4.5719	* 4.3936	* 5.9238	*
	* 3.9796	* 4.1887	* 3.9328	* 4.2278	* 4.1724	* 4.1265	* 5.4565	*
	* 3.6472	* 3.7273	* 3.5862	* 3.7331	* 3.6211	* 3.7278	* 4.7871	*
	* 3.1534	* 3.1694	* 3.1035	* 3.1536	* 2.9910	* 3.2161	* 4.0089	*

13	* 4.0113	* 4.0904	* 4.0386	* 3.3974	* 3.7158	* 5.0332	* 9.4649	*
	* 4.6445	* 4.6944	* 4.6269	* 4.0459	* 4.4076	* 5.7306	* 10.6957	*
	* 4.8834	* 4.9081	* 4.8332	* 4.3075	* 4.6325	* 5.9651	* 10.9878	*
	* 4.6305	* 4.6226	* 4.5349	* 4.1727	* 4.3935	* 5.5465	* 9.9705	*
	* 4.3143	* 4.2906	* 4.1951	* 3.9830	* 4.1265	* 5.0767	* 8.8791	*
	* 3.8353	* 3.7979	* 3.7101	* 3.6061	* 3.7277	* 4.4159	* 7.4239	*
	* 3.2652	* 3.2317	* 3.1639	* 3.1345	* 3.2161	* 3.6835	* 5.8390	*

14	* 3.6351	* 3.6477	* 3.7413	* 3.9176	* 5.3204	* 9.4663	*	*
	* 4.3592	* 4.3700	* 4.4533	* 4.6345	* 6.0615	* 10.6972	*	*
	* 4.6409	* 4.6475	* 4.7055	* 4.8710	* 6.3272	* 10.9894	*	*
	* 4.5016	* 4.5012	* 4.5180	* 4.6152	* 5.9223	* 9.9719	*	*
	* 4.3156	* 4.3087	* 4.2943	* 4.3355	* 5.4560	* 8.8803	*	*
	* 3.9274	* 3.9142	* 3.9030	* 3.9250	* 4.7868	* 7.4249	*	*
	* 3.4030	* 3.4146	* 3.4062	* 3.4590	* 4.0087	* 5.8395	*	*

15	* 6.4421	* 6.4273	* 6.6921	* 7.7195	* 4 EFPD	118 % POWER		
	* 7.3650	* 7.3367	* 7.6110	* 8.7278	* 50 EFPD	118 % POWER		
	* 7.7067	* 7.6659	* 7.9269	* 9.0320	* 100 EFPD	118 % POWER		
	* 7.2358	* 7.1840	* 7.3986	* 8.3496	* 175 EFPD	118 % POWER		
	* 6.6557	* 6.6174	* 6.7968	* 7.5910	* 250 EFPD	118 % POWER		
	* 5.7712	* 5.7748	* 5.9102	* 6.5242	* 350 EFPD	118 % POWER		
	* 4.7345	* 4.7620	* 4.8841	* 5.3350	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with columns H, G, F, E, D, C, B, A and rows 8 through 15. Each row contains 8 columns of numerical values, with some rows in the final section containing text like '4 EFPD 118 % POWER'.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 1.4758	* 1.6646	* 1.7185	* 1.6986	* 1.4371	* 1.5638	* 1.4041	* 2.5302
	* 1.6248	* 1.8390	* 1.9353	* 1.8663	* 1.5673	* 1.7215	* 1.5949	* 2.7399
	* 1.6802	* 1.9094	* 2.0409	* 1.9333	* 1.6273	* 1.7862	* 1.6684	* 2.8051
	* 1.6244	* 1.8498	* 2.0038	* 1.8752	* 1.6022	* 1.7281	* 1.6292	* 2.6671
	* 1.5873	* 1.8049	* 1.9707	* 1.8410	* 1.5837	* 1.6939	* 1.6099	* 2.5586
	* 1.5440	* 1.7392	* 1.9067	* 1.7941	* 1.5708	* 1.6527	* 1.5838	* 2.4173
	* 1.5045	* 1.6784	* 1.8390	* 1.7528	* 1.5529	* 1.6126	* 1.5630	* 2.2592

9	* 1.6646	* 1.4364	* 1.5413	* 1.4570	* 1.6270	* 1.5724	* 1.4085	* 2.5425
	* 1.8390	* 1.5906	* 1.7170	* 1.5883	* 1.7818	* 1.7279	* 1.6001	* 2.7511
	* 1.9094	* 1.6572	* 1.7975	* 1.6449	* 1.8415	* 1.7819	* 1.6709	* 2.8136
	* 1.8498	* 1.6325	* 1.7558	* 1.6126	* 1.7808	* 1.7162	* 1.6265	* 2.6709
	* 1.8049	* 1.6065	* 1.7259	* 1.5931	* 1.7489	* 1.6791	* 1.6062	* 2.5594
	* 1.7392	* 1.5735	* 1.6774	* 1.5731	* 1.7082	* 1.6359	* 1.5784	* 2.4295
	* 1.6784	* 1.5367	* 1.6276	* 1.5511	* 1.6774	* 1.6035	* 1.5652	* 2.2728

10	* 1.7185	* 1.5413	* 1.7410	* 1.7510	* 1.5077	* 1.5993	* 1.4082	* 2.6365
	* 1.9353	* 1.7170	* 1.9580	* 1.9133	* 1.6481	* 1.7433	* 1.5801	* 2.8435
	* 2.0409	* 1.7974	* 2.0599	* 1.9709	* 1.6916	* 1.7891	* 1.6359	* 2.8999
	* 2.0038	* 1.7557	* 2.0211	* 1.8866	* 1.6134	* 1.7068	* 1.5959	* 2.7448
	* 1.9707	* 1.7257	* 1.9873	* 1.8337	* 1.5703	* 1.6514	* 1.5864	* 2.6344
	* 1.9067	* 1.6772	* 1.9215	* 1.7745	* 1.5361	* 1.5977	* 1.5677	* 2.4901
	* 1.8390	* 1.6274	* 1.8557	* 1.7276	* 1.5119	* 1.5604	* 1.5549	* 2.3430

11	* 1.6986	* 1.4570	* 1.7507	* 1.4493	* 1.7524	* 1.5302	* 1.4856	* 3.0626
	* 1.8663	* 1.5882	* 1.9129	* 1.5791	* 1.9084	* 1.6883	* 1.6461	* 3.2882
	* 1.9333	* 1.6449	* 1.9706	* 1.6250	* 1.9514	* 1.7131	* 1.6815	* 3.3323
	* 1.8752	* 1.6125	* 1.8864	* 1.5819	* 1.8515	* 1.6163	* 1.6115	* 3.1221
	* 1.8410	* 1.5930	* 1.8336	* 1.5474	* 1.7896	* 1.5709	* 1.5810	* 2.9634
	* 1.7941	* 1.5730	* 1.7744	* 1.5171	* 1.7266	* 1.5267	* 1.5514	* 2.7684
	* 1.7528	* 1.5510	* 1.7275	* 1.4871	* 1.6817	* 1.5019	* 1.5534	* 2.5822

12	* 1.4371	* 1.6269	* 1.5075	* 1.7524	* 1.5832	* 1.3916	* 2.1202	*
	* 1.5673	* 1.7818	* 1.6480	* 1.9082	* 1.7406	* 1.5664	* 2.2751	*
	* 1.6273	* 1.8414	* 1.6915	* 1.9512	* 1.7947	* 1.6189	* 2.3119	*
	* 1.6022	* 1.7807	* 1.6133	* 1.8513	* 1.7122	* 1.5647	* 2.1812	*
	* 1.5837	* 1.7488	* 1.5702	* 1.7895	* 1.6585	* 1.5362	* 2.0908	*
	* 1.5708	* 1.7081	* 1.5361	* 1.7266	* 1.5999	* 1.5152	* 1.9923	*
	* 1.5529	* 1.6773	* 1.5118	* 1.6817	* 1.5515	* 1.5012	* 1.8943	*

13	* 1.5638	* 1.5724	* 1.5991	* 1.5302	* 1.3916	* 1.8877	* 3.7074	*
	* 1.7215	* 1.7278	* 1.7431	* 1.6881	* 1.5664	* 2.0744	* 4.0155	*
	* 1.7862	* 1.7817	* 1.7888	* 1.7129	* 1.6189	* 2.1450	* 4.0721	*
	* 1.7281	* 1.7161	* 1.7066	* 1.6162	* 1.5646	* 2.0554	* 3.7783	*
	* 1.6939	* 1.6790	* 1.6513	* 1.5708	* 1.5361	* 1.9912	* 3.5351	*
	* 1.6527	* 1.6358	* 1.5976	* 1.5266	* 1.5152	* 1.9143	* 3.2395	*
	* 1.6126	* 1.6035	* 1.5603	* 1.5019	* 1.5012	* 1.8407	* 2.9478	*

14	* 1.4041	* 1.4085	* 1.4080	* 1.4854	* 2.1196	* 3.7081	*	*
	* 1.5949	* 1.5999	* 1.5798	* 1.6458	* 2.2744	* 4.0162	*	*
	* 1.6684	* 1.6707	* 1.6357	* 1.6813	* 2.3113	* 4.0729	*	*
	* 1.6292	* 1.6264	* 1.5957	* 1.6113	* 2.1807	* 3.7789	*	*
	* 1.6099	* 1.6061	* 1.5863	* 1.5809	* 2.0907	* 3.5358	*	*
	* 1.5838	* 1.5783	* 1.5676	* 1.5513	* 1.9922	* 3.2401	*	*
	* 1.5630	* 1.5651	* 1.5548	* 1.5533	* 1.8942	* 2.9483	*	*

15	* 2.5302	* 2.5423	* 2.6343	* 3.0617	* 4 EFPD	118 % POWER		
	* 2.7399	* 2.7508	* 2.8418	* 3.2872	* 50 EFPD	118 % POWER		
	* 2.8051	* 2.8134	* 2.8986	* 3.3315	* 100 EFPD	118 % POWER		
	* 2.6671	* 2.6706	* 2.7438	* 3.1214	* 175 EFPD	118 % POWER		
	* 2.5586	* 2.5591	* 2.6335	* 2.9624	* 250 EFPD	118 % POWER		
	* 2.4173	* 2.4295	* 2.4882	* 2.7676	* 350 EFPD	118 % POWER		
	* 2.2592	* 2.2727	* 2.3412	* 2.5815	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
 M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
 THIS IS LEVEL 21 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 1.4009	* 1.6062	* 1.6321	* 1.6321	* 1.3559	* 1.4752	* 1.3025	* 2.4857
	* 1.5052	* 1.7292	* 1.8042	* 1.7428	* 1.4260	* 1.5835	* 1.4391	* 2.6132
	* 1.5221	* 1.7723	* 1.8874	* 1.7828	* 1.4576	* 1.6225	* 1.4865	* 2.6352
	* 1.4596	* 1.7147	* 1.8627	* 1.7289	* 1.4301	* 1.5742	* 1.4424	* 2.4963
	* 1.4384	* 1.6888	* 1.8531	* 1.7139	* 1.4289	* 1.5554	* 1.4344	* 2.4036
	* 1.4290	* 1.6560	* 1.8246	* 1.6988	* 1.4457	* 1.5466	* 1.4417	* 2.3034
	* 1.4280	* 1.6315	* 1.7951	* 1.6907	* 1.4606	* 1.5388	* 1.4545	* 2.1906

9	* 1.6062	* 1.3585	* 1.4536	* 1.3791	* 1.5562	* 1.4764	* 1.3066	* 2.4965
	* 1.7292	* 1.4558	* 1.5860	* 1.4538	* 1.6609	* 1.5849	* 1.4436	* 2.6228
	* 1.7723	* 1.4960	* 1.6460	* 1.4790	* 1.6932	* 1.6175	* 1.4873	* 2.6426
	* 1.7147	* 1.4657	* 1.6133	* 1.4409	* 1.6386	* 1.5620	* 1.4378	* 2.4993
	* 1.6888	* 1.4598	* 1.6058	* 1.4409	* 1.6246	* 1.5450	* 1.4320	* 2.4087
	* 1.6560	* 1.4576	* 1.5887	* 1.4502	* 1.6154	* 1.5329	* 1.4384	* 2.3214
	* 1.6315	* 1.4600	* 1.5750	* 1.4665	* 1.6141	* 1.5369	* 1.4564	* 2.2078

10	* 1.6321	* 1.4536	* 1.6507	* 1.6880	* 1.4216	* 1.5045	* 1.3083	* 2.5974
	* 1.8042	* 1.5860	* 1.8227	* 1.7974	* 1.5180	* 1.5993	* 1.4234	* 2.7199
	* 1.8874	* 1.6460	* 1.9047	* 1.8231	* 1.5189	* 1.6222	* 1.4516	* 2.7312
	* 1.8627	* 1.6132	* 1.8767	* 1.7402	* 1.4365	* 1.5493	* 1.4145	* 2.5763
	* 1.8531	* 1.6057	* 1.8639	* 1.7059	* 1.4090	* 1.5143	* 1.4158	* 2.4880
	* 1.8246	* 1.5886	* 1.8322	* 1.6776	* 1.4081	* 1.4917	* 1.4268	* 2.3940
	* 1.7951	* 1.5748	* 1.8045	* 1.6686	* 1.4220	* 1.4901	* 1.4499	* 2.3011

11	* 1.6321	* 1.3791	* 1.6873	* 1.3709	* 1.6836	* 1.4402	* 1.3958	* 3.0127
	* 1.7428	* 1.4538	* 1.7969	* 1.4467	* 1.7897	* 1.5508	* 1.4920	* 3.1416
	* 1.7828	* 1.4790	* 1.8227	* 1.4596	* 1.8025	* 1.5317	* 1.4956	* 3.1380
	* 1.7289	* 1.4409	* 1.7399	* 1.4109	* 1.7010	* 1.4322	* 1.4260	* 2.9332
	* 1.7139	* 1.4409	* 1.7057	* 1.3951	* 1.6578	* 1.4025	* 1.4063	* 2.8087
	* 1.6988	* 1.4501	* 1.6775	* 1.3944	* 1.6269	* 1.3927	* 1.4083	* 2.6632
	* 1.6907	* 1.4665	* 1.6685	* 1.4043	* 1.6195	* 1.4072	* 1.4473	* 2.5368

12	* 1.3559	* 1.5561	* 1.4214	* 1.6835	* 1.4941	* 1.2976	* 2.0903	*
	* 1.4260	* 1.6609	* 1.5178	* 1.7897	* 1.6034	* 1.4176	* 2.1701	*
	* 1.4576	* 1.6931	* 1.5187	* 1.8023	* 1.6328	* 1.4433	* 2.1654	*
	* 1.4301	* 1.6385	* 1.4364	* 1.7009	* 1.5594	* 1.3916	* 2.0307	*
	* 1.4289	* 1.6245	* 1.4089	* 1.6577	* 1.5277	* 1.3741	* 1.9614	*
	* 1.4457	* 1.6154	* 1.4080	* 1.6269	* 1.5022	* 1.3836	* 1.8997	*
	* 1.4606	* 1.6141	* 1.4220	* 1.6195	* 1.4924	* 1.4091	* 1.8450	*

13	* 1.4752	* 1.4763	* 1.5043	* 1.4401	* 1.2975	* 1.8167	* 3.6479	*
	* 1.5835	* 1.5847	* 1.5990	* 1.5506	* 1.4175	* 1.9515	* 3.8568	*
	* 1.6225	* 1.6174	* 1.6219	* 1.5315	* 1.4433	* 1.9966	* 3.8642	*
	* 1.5742	* 1.5619	* 1.5490	* 1.4320	* 1.3915	* 1.9158	* 3.5831	*
	* 1.5554	* 1.5449	* 1.5141	* 1.4024	* 1.3740	* 1.8766	* 3.3839	*
	* 1.5466	* 1.5328	* 1.4916	* 1.3926	* 1.3836	* 1.8374	* 3.1528	*
	* 1.5388	* 1.5369	* 1.4900	* 1.4072	* 1.4091	* 1.8044	* 2.9305	*

14	* 1.3025	* 1.3066	* 1.3080	* 1.3955	* 2.0897	* 3.6486	*	*
	* 1.4391	* 1.4435	* 1.4231	* 1.4917	* 2.1694	* 3.8575	*	*
	* 1.4865	* 1.4872	* 1.4513	* 1.4953	* 2.1648	* 3.8649	*	*
	* 1.4424	* 1.4376	* 1.4143	* 1.4259	* 2.0301	* 3.5838	*	*
	* 1.4344	* 1.4319	* 1.4156	* 1.4061	* 1.9612	* 3.3846	*	*
	* 1.4417	* 1.4384	* 1.4267	* 1.4083	* 1.8995	* 3.1534	*	*
	* 1.4545	* 1.4564	* 1.4498	* 1.4473	* 1.8449	* 2.9310	*	*

15	* 2.4857	* 2.4966	* 2.5945	* 3.0114	* 4 EFPD	118 % POWER		
	* 2.6132	* 2.6228	* 2.7170	* 3.1403	* 50 EFPD	118 % POWER		
	* 2.6352	* 2.6425	* 2.7285	* 3.1370	* 100 EFPD	118 % POWER		
	* 2.4963	* 2.4993	* 2.5750	* 2.9324	* 175 EFPD	118 % POWER		
	* 2.4036	* 2.4087	* 2.4870	* 2.8076	* 250 EFPD	118 % POWER		
	* 2.3034	* 2.3214	* 2.3924	* 2.6624	* 350 EFPD	118 % POWER		
	* 2.1906	* 2.2078	* 2.2984	* 2.5360	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Each row contains numerical values for each column, separated by asterisks. Rows 12-15 include additional information like '4 EFPD 118 % POWER'.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with columns H, G, F, E, D, C, B, A. Rows 8-15. Row 15 includes power limits: 4 EFPD 118 % POWER, 50 EFPD 118 % POWER, 100 EFPD 118 % POWER, 175 EFPD 118 % POWER, 250 EFPD 118 % POWER, 350 EFPD 118 % POWER, 465 EFPD 118 % POWER.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5108	* 1.7568	* 1.7796	* 1.7652	* 1.4167	* 1.5410	* 1.3353	* 2.6808
	* 1.5268	* 1.8052	* 1.8904	* 1.7965	* 1.4150	* 1.5845	* 1.4060	* 2.6746
	* 1.5062	* 1.8195	* 1.9551	* 1.8072	* 1.4214	* 1.6028	* 1.4254	* 2.6410
	* 1.4638	* 1.7870	* 1.9625	* 1.7826	* 1.4161	* 1.5830	* 1.3936	* 2.5323
	* 1.4654	* 1.7812	* 1.9724	* 1.7867	* 1.4404	* 1.5894	* 1.4133	* 2.4754
	* 1.4976	* 1.7851	* 1.9834	* 1.8134	* 1.5027	* 1.6200	* 1.4667	* 2.4202
	* 1.5172	* 1.7670	* 1.9499	* 1.8013	* 1.5259	* 1.6243	* 1.4962	* 2.3237
9	* 1.7568	* 1.4427	* 1.5579	* 1.4601	* 1.6683	* 1.5442	* 1.3393	* 2.6859
	* 1.8052	* 1.4743	* 1.6316	* 1.4550	* 1.7015	* 1.5844	* 1.4101	* 2.6773
	* 1.8195	* 1.4902	* 1.6729	* 1.4520	* 1.7065	* 1.5935	* 1.4222	* 2.6406
	* 1.7870	* 1.4792	* 1.6709	* 1.4329	* 1.6790	* 1.5653	* 1.3854	* 2.5260
	* 1.7812	* 1.4966	* 1.6805	* 1.4542	* 1.6853	* 1.5698	* 1.4040	* 2.4678
	* 1.7851	* 1.5337	* 1.7000	* 1.5063	* 1.7179	* 1.6019	* 1.4585	* 2.4301
	* 1.7670	* 1.5548	* 1.6850	* 1.5298	* 1.7143	* 1.6073	* 1.4914	* 2.3312
10	* 1.7796	* 1.5579	* 1.8013	* 1.8413	* 1.4991	* 1.5737	* 1.3364	* 2.7888
	* 1.8904	* 1.6315	* 1.9124	* 1.8594	* 1.5100	* 1.5940	* 1.3795	* 2.7710
	* 1.9551	* 1.6728	* 1.9736	* 1.8452	* 1.4669	* 1.5900	* 1.3789	* 2.7237
	* 1.9625	* 1.6707	* 1.9742	* 1.7785	* 1.3987	* 1.5301	* 1.3658	* 2.5989
	* 1.9724	* 1.6802	* 1.9715	* 1.7649	* 1.3964	* 1.5221	* 1.3840	* 2.5399
	* 1.9834	* 1.6998	* 1.9790	* 1.7805	* 1.4441	* 1.5458	* 1.4405	* 2.5081
	* 1.9499	* 1.6847	* 1.9455	* 1.7809	* 1.4818	* 1.5621	* 1.4835	* 2.4074
11	* 1.7652	* 1.4601	* 1.8403	* 1.4519	* 1.8234	* 1.5032	* 1.4322	* 3.2493
	* 1.7965	* 1.4550	* 1.8588	* 1.4446	* 1.8411	* 1.5260	* 1.4449	* 3.2083
	* 1.8072	* 1.4520	* 1.8448	* 1.4233	* 1.8001	* 1.4617	* 1.4145	* 3.1327
	* 1.7826	* 1.4329	* 1.7782	* 1.3873	* 1.7166	* 1.3777	* 1.3656	* 2.9579
	* 1.7867	* 1.4540	* 1.7646	* 1.3957	* 1.6980	* 1.3763	* 1.3688	* 2.8618
	* 1.8134	* 1.5062	* 1.7803	* 1.4401	* 1.7130	* 1.4169	* 1.4185	* 2.7863
	* 1.8013	* 1.5298	* 1.7807	* 1.4748	* 1.7272	* 1.4641	* 1.4883	* 2.6603
12	* 1.4167	* 1.6682	* 1.4989	* 1.8235	* 1.5750	* 1.3420	* 2.2334	*
	* 1.4150	* 1.7015	* 1.5097	* 1.8411	* 1.6137	* 1.3902	* 2.1913	*
	* 1.4214	* 1.7064	* 1.4667	* 1.7999	* 1.6131	* 1.3832	* 2.1337	*
	* 1.4161	* 1.6790	* 1.3986	* 1.7165	* 1.5618	* 1.3456	* 2.0221	*
	* 1.4404	* 1.6853	* 1.3963	* 1.6979	* 1.5580	* 1.3567	* 1.9861	*
	* 1.5027	* 1.7179	* 1.4441	* 1.7129	* 1.5752	* 1.4126	* 1.9776	*
	* 1.5259	* 1.7143	* 1.4818	* 1.7272	* 1.6003	* 1.4776	* 1.9569	*
13	* 1.5410	* 1.5441	* 1.5733	* 1.5031	* 1.3419	* 1.9431	* 4.0306	*
	* 1.5845	* 1.5842	* 1.5936	* 1.5257	* 1.3902	* 1.9897	* 4.0501	*
	* 1.6028	* 1.5933	* 1.5897	* 1.4615	* 1.3831	* 1.9976	* 3.9707	*
	* 1.5830	* 1.5651	* 1.5298	* 1.3776	* 1.3455	* 1.9418	* 3.7207	*
	* 1.5894	* 1.5696	* 1.5219	* 1.3762	* 1.3567	* 1.9357	* 3.5663	*
	* 1.6200	* 1.6018	* 1.5456	* 1.4169	* 1.4126	* 1.9432	* 3.4076	*
	* 1.6243	* 1.6072	* 1.5620	* 1.4641	* 1.4776	* 1.9464	* 3.2176	*
14	* 1.3353	* 1.3392	* 1.3361	* 1.4319	* 2.2328	* 4.0314	*	*
	* 1.4060	* 1.4099	* 1.3792	* 1.4446	* 2.1906	* 4.0508	*	*
	* 1.4254	* 1.4220	* 1.3786	* 1.4142	* 2.1331	* 3.9715	*	*
	* 1.3936	* 1.3853	* 1.3656	* 1.3655	* 2.0217	* 3.7214	*	*
	* 1.4133	* 1.4039	* 1.3838	* 1.3686	* 1.9860	* 3.5670	*	*
	* 1.4667	* 1.4584	* 1.4404	* 1.4185	* 1.9775	* 3.4083	*	*
	* 1.4962	* 1.4914	* 1.4834	* 1.4883	* 1.9568	* 3.2182	*	*
15	* 2.6808	* 2.6861	* 2.7850	* 3.2478	* 4 EFPD	118 % POWER		
	* 2.6746	* 2.6775	* 2.7679	* 3.2070	* 50 EFPD	118 % POWER		
	* 2.6410	* 2.6408	* 2.7208	* 3.1316	* 100 EFPD	118 % POWER		
	* 2.5323	* 2.5263	* 2.5978	* 2.9571	* 175 EFPD	118 % POWER		
	* 2.4754	* 2.4682	* 2.5390	* 2.8607	* 250 EFPD	118 % POWER		
	* 2.4202	* 2.4304	* 2.5065	* 2.7855	* 350 EFPD	118 % POWER		
	* 2.3237	* 2.3313	* 2.4054	* 2.6596	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
 M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
 THIS IS LEVEL 17 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6021	* 1.8658	* 1.8872	* 1.8647	* 1.4858	* 1.6109	* 1.3917	* 2.8235
	* 1.6039	* 1.9019	* 1.9892	* 1.8797	* 1.4693	* 1.6422	* 1.4512	* 2.7870
	* 1.5760	* 1.9127	* 2.0514	* 1.8863	* 1.4717	* 1.6584	* 1.4650	* 2.7435
	* 1.5406	* 1.8909	* 2.0735	* 1.8727	* 1.4762	* 1.6495	* 1.4417	* 2.6467
	* 1.5407	* 1.8823	* 2.0838	* 1.8797	* 1.5054	* 1.6602	* 1.4656	* 2.5917
	* 1.5766	* 1.8874	* 2.0860	* 1.8972	* 1.5636	* 1.6859	* 1.5167	* 2.5240
	* 1.5770	* 1.8478	* 2.0356	* 1.8824	* 1.5868	* 1.6893	* 1.5475	* 2.4213
9	* 1.8658	* 1.5249	* 1.6449	* 1.5383	* 1.7567	* 1.6148	* 1.3960	* 2.8285
	* 1.9019	* 1.5433	* 1.7088	* 1.5159	* 1.7769	* 1.6415	* 1.4551	* 2.7890
	* 1.9127	* 1.5575	* 1.7489	* 1.5077	* 1.7779	* 1.6478	* 1.4610	* 2.7407
	* 1.8909	* 1.5553	* 1.7588	* 1.4963	* 1.7613	* 1.6296	* 1.4324	* 2.6377
	* 1.8823	* 1.5723	* 1.7687	* 1.5200	* 1.7705	* 1.6383	* 1.4549	* 2.5814
	* 1.8874	* 1.6132	* 1.7814	* 1.5704	* 1.7952	* 1.6666	* 1.5088	* 2.5328
	* 1.8478	* 1.6129	* 1.7565	* 1.5893	* 1.7895	* 1.6692	* 1.5406	* 2.4278
10	* 1.8872	* 1.6449	* 1.9093	* 1.9493	* 1.5734	* 1.6454	* 1.3918	* 2.9363
	* 1.9892	* 1.7086	* 2.0111	* 1.9471	* 1.5684	* 1.6509	* 1.4214	* 2.8871
	* 2.0514	* 1.7488	* 2.0719	* 1.9250	* 1.5153	* 1.6429	* 1.4162	* 2.8279
	* 2.0735	* 1.7586	* 2.0828	* 1.8665	* 1.4530	* 1.5901	* 1.4112	* 2.7145
	* 2.0838	* 1.7684	* 2.0806	* 1.8532	* 1.4528	* 1.5851	* 1.4329	* 2.6571
	* 2.0860	* 1.7811	* 2.0799	* 1.8682	* 1.5067	* 1.6127	* 1.4944	* 2.6106
	* 2.0356	* 1.7562	* 2.0322	* 1.8530	* 1.5313	* 1.6159	* 1.5275	* 2.5045
11	* 1.8647	* 1.5383	* 1.9481	* 1.5294	* 1.9287	* 1.5789	* 1.4940	* 3.4284
	* 1.8797	* 1.5159	* 1.9464	* 1.5044	* 1.9236	* 1.5800	* 1.4900	* 3.3481
	* 1.8863	* 1.5076	* 1.9245	* 1.4759	* 1.8722	* 1.5061	* 1.4528	* 3.2571
	* 1.8727	* 1.4963	* 1.8662	* 1.4465	* 1.7960	* 1.4272	* 1.4113	* 3.0934
	* 1.8797	* 1.5198	* 1.8529	* 1.4554	* 1.7770	* 1.4279	* 1.4163	* 2.9957
	* 1.8972	* 1.5703	* 1.8679	* 1.5066	* 1.7976	* 1.4761	* 1.4727	* 2.9121
	* 1.8824	* 1.5892	* 1.8528	* 1.5234	* 1.7882	* 1.5074	* 1.5292	* 2.7645
12	* 1.4858	* 1.7566	* 1.5732	* 1.9287	* 1.6563	* 1.4078	* 2.3576	*
	* 1.4693	* 1.7768	* 1.5681	* 1.9236	* 1.6825	* 1.4423	* 2.2862	*
	* 1.4717	* 1.7779	* 1.5151	* 1.8719	* 1.6767	* 1.4288	* 2.2165	*
	* 1.4762	* 1.7613	* 1.4529	* 1.7958	* 1.6330	* 1.3968	* 2.1118	*
	* 1.5054	* 1.7705	* 1.4527	* 1.7770	* 1.6295	* 1.4092	* 2.0743	*
	* 1.5636	* 1.7952	* 1.5067	* 1.7976	* 1.6512	* 1.4717	* 2.0696	*
	* 1.5868	* 1.7896	* 1.5313	* 1.7882	* 1.6534	* 1.5186	* 2.0174	*
13	* 1.6109	* 1.6146	* 1.6450	* 1.5788	* 1.4077	* 2.0566	* 4.2918	*
	* 1.6422	* 1.6413	* 1.6505	* 1.5797	* 1.4422	* 2.0842	* 4.2661	*
	* 1.6584	* 1.6476	* 1.6425	* 1.5059	* 1.4287	* 2.0852	* 4.1660	*
	* 1.6495	* 1.6294	* 1.5898	* 1.4271	* 1.3967	* 2.0386	* 3.9247	*
	* 1.6602	* 1.6382	* 1.5849	* 1.4278	* 1.4091	* 2.0304	* 3.7572	*
	* 1.6859	* 1.6665	* 1.6125	* 1.4761	* 1.4717	* 2.0411	* 3.5954	*
	* 1.6893	* 1.6691	* 1.6158	* 1.5074	* 1.5186	* 2.0173	* 3.3562	*
14	* 1.3917	* 1.3958	* 1.3915	* 1.4936	* 2.3570	* 4.2927	*	*
	* 1.4512	* 1.4549	* 1.4211	* 1.4896	* 2.2856	* 4.2669	*	*
	* 1.4650	* 1.4608	* 1.4160	* 1.4526	* 2.2159	* 4.1668	*	*
	* 1.4417	* 1.4323	* 1.4111	* 1.4111	* 2.1113	* 3.9254	*	*
	* 1.4656	* 1.4548	* 1.4327	* 1.4162	* 2.0742	* 3.7580	*	*
	* 1.5167	* 1.5088	* 1.4943	* 1.4726	* 2.0695	* 3.5962	*	*
	* 1.5475	* 1.5405	* 1.5274	* 1.5292	* 2.0174	* 3.3568	*	*
15	* 2.8235	* 2.8288	* 2.9322	* 3.4269	* 4 EFPD	118 % POWER		
	* 2.7870	* 2.7893	* 2.8838	* 3.3466	* 50 EFPD	118 % POWER		
	* 2.7435	* 2.7410	* 2.8249	* 3.2559	* 100 EFPD	118 % POWER		
	* 2.6467	* 2.6381	* 2.7134	* 3.0927	* 175 EFPD	118 % POWER		
	* 2.5917	* 2.5819	* 2.6562	* 2.9945	* 250 EFPD	118 % POWER		
	* 2.5240	* 2.5331	* 2.6090	* 2.9112	* 350 EFPD	118 % POWER		
	* 2.4213	* 2.4280	* 2.5024	* 2.7637	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with columns H, G, F, E, D, C, B, A and rows 8 through 15. Each row contains numerical values for each column, with row 15 including power limits (e.g., 4 EFPD 118 % POWER).

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
 M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
 THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 1.8382	* 2.1377	* 2.1586	* 2.1170	* 1.6751	* 1.8055	* 1.5566	* 3.1389
	* 1.8324	* 2.1657	* 2.2510	* 2.1132	* 1.6397	* 1.8215	* 1.6046	* 3.0626
	* 1.8028	* 2.1800	* 2.3187	* 2.1163	* 1.6397	* 1.8371	* 1.6142	* 3.0084
	* 1.7944	* 2.1976	* 2.3683	* 2.1397	* 1.6765	* 1.8643	* 1.6202	* 2.9583
	* 1.8024	* 2.1978	* 2.3869	* 2.1621	* 1.7239	* 1.8888	* 1.6579	* 2.9178
	* 1.8117	* 2.1650	* 2.3598	* 2.1609	* 1.7724	* 1.8983	* 1.6973	* 2.8162
	* 1.8027	* 2.1105	* 2.2958	* 2.1334	* 1.7922	* 1.8916	* 1.7251	* 2.6800

9	* 2.1377	* 1.7443	* 1.8722	* 1.7451	* 1.9872	* 1.8111	* 1.5618	* 3.1477
	* 2.1657	* 1.7479	* 1.9264	* 1.7012	* 1.9931	* 1.8222	* 1.6099	* 3.0681
	* 2.1800	* 1.7690	* 1.9701	* 1.6883	* 1.9898	* 1.8263	* 1.6110	* 3.0094
	* 2.1976	* 1.7986	* 2.0163	* 1.7059	* 2.0091	* 1.8429	* 1.6116	* 2.9496
	* 2.1978	* 1.8259	* 2.0389	* 1.7439	* 2.0332	* 1.8649	* 1.6472	* 2.9036
	* 2.1650	* 1.8404	* 2.0283	* 1.7808	* 2.0406	* 1.8745	* 1.6870	* 2.8184
	* 2.1105	* 1.8332	* 1.9916	* 1.7963	* 2.0253	* 1.8716	* 1.7184	* 2.6790

10	* 2.1586	* 1.8720	* 2.1832	* 2.2233	* 1.7804	* 1.8488	* 1.5594	* 3.2670
	* 2.2510	* 1.9262	* 2.2781	* 2.1935	* 1.7548	* 1.8341	* 1.5728	* 3.1704
	* 2.3187	* 1.9698	* 2.3447	* 2.1657	* 1.6913	* 1.8225	* 1.5642	* 3.0982
	* 2.3683	* 2.0159	* 2.3844	* 2.1378	* 1.6529	* 1.8031	* 1.5896	* 3.0322
	* 2.3869	* 2.0385	* 2.3888	* 2.1349	* 1.6623	* 1.8070	* 1.6234	* 2.9828
	* 2.3598	* 2.0278	* 2.3612	* 2.1221	* 1.6978	* 1.8107	* 1.6674	* 2.8842
	* 2.2958	* 1.9911	* 2.3086	* 2.0975	* 1.7215	* 1.8099	* 1.7007	* 2.7514

11	* 2.1170	* 1.7451	* 2.2219	* 1.7541	* 2.2160	* 1.8064	* 1.6811	* 3.8275
	* 2.1132	* 1.7011	* 2.1926	* 1.6973	* 2.1686	* 1.7664	* 1.6551	* 3.6884
	* 2.1163	* 1.6882	* 2.1652	* 1.6594	* 2.1036	* 1.6743	* 1.6090	* 3.5761
	* 2.1397	* 1.7059	* 2.1373	* 1.6540	* 2.0549	* 1.6203	* 1.5956	* 3.4607
	* 2.1621	* 1.7437	* 2.1345	* 1.6724	* 2.0444	* 1.6261	* 1.6055	* 3.3723
	* 2.1609	* 1.7806	* 2.1218	* 1.7028	* 2.0340	* 1.6572	* 1.6442	* 3.2280
	* 2.1334	* 1.7962	* 2.0972	* 1.7164	* 2.0163	* 1.6877	* 1.7014	* 3.0542

12	* 1.6751	* 1.9872	* 1.7802	* 2.2161	* 1.9056	* 1.6114	* 2.6619	*
	* 1.6397	* 1.9931	* 1.7545	* 2.1683	* 1.9109	* 1.6273	* 2.5442	*
	* 1.6397	* 1.9898	* 1.6911	* 2.1033	* 1.8965	* 1.6042	* 2.4569	*
	* 1.6765	* 2.0092	* 1.6528	* 2.0548	* 1.8843	* 1.5988	* 2.3853	*
	* 1.7239	* 2.0332	* 1.6622	* 2.0443	* 1.8843	* 1.6136	* 2.3495	*
	* 1.7724	* 2.0407	* 1.6978	* 2.0340	* 1.8797	* 1.6618	* 2.3037	*
	* 1.7922	* 2.0253	* 1.7215	* 2.0163	* 1.8651	* 1.6991	* 2.2266	*

13	* 1.8055	* 1.8108	* 1.8485	* 1.8064	* 1.6114	* 2.3527	* 4.8974	*
	* 1.8215	* 1.8219	* 1.8337	* 1.7661	* 1.6272	* 2.3503	* 4.7978	*
	* 1.8371	* 1.8260	* 1.8222	* 1.6740	* 1.6041	* 2.3423	* 4.6654	*
	* 1.8643	* 1.8427	* 1.8028	* 1.6201	* 1.5987	* 2.3333	* 4.4751	*
	* 1.8888	* 1.8647	* 1.8067	* 1.6260	* 1.6136	* 2.3260	* 4.3018	*
	* 1.8983	* 1.8744	* 1.8105	* 1.6572	* 1.6617	* 2.2984	* 4.0370	*
	* 1.8916	* 1.8715	* 1.8098	* 1.6877	* 1.6991	* 2.2435	* 3.7300	*

14	* 1.5566	* 1.5617	* 1.5590	* 1.6807	* 2.6612	* 4.8984	*	*
	* 1.6046	* 1.6097	* 1.5724	* 1.6547	* 2.5434	* 4.7988	*	*
	* 1.6142	* 1.6107	* 1.5640	* 1.6087	* 2.4563	* 4.6663	*	*
	* 1.6202	* 1.6114	* 1.5894	* 1.5954	* 2.3848	* 4.4760	*	*
	* 1.6579	* 1.6471	* 1.6233	* 1.6054	* 2.3494	* 4.3027	*	*
	* 1.6973	* 1.6870	* 1.6673	* 1.6442	* 2.3037	* 4.0379	*	*
	* 1.7251	* 1.7184	* 1.7006	* 1.7014	* 2.2266	* 3.7308	*	*

15	* 3.1389	* 3.1481	* 3.2633	* 3.8258	* 4 EFPD	118 % POWER		
	* 3.0626	* 3.0686	* 3.1671	* 3.6869	* 50 EFPD	118 % POWER		
	* 3.0084	* 3.0096	* 3.0958	* 3.5748	* 100 EFPD	118 % POWER		
	* 2.9583	* 2.9498	* 3.0311	* 3.4598	* 175 EFPD	118 % POWER		
	* 2.9178	* 2.9037	* 2.9811	* 3.3711	* 250 EFPD	118 % POWER		
	* 2.8162	* 2.8187	* 2.8817	* 3.2271	* 350 EFPD	118 % POWER		
	* 2.6800	* 2.6792	* 2.7491	* 3.0534	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with columns H, G, F, E, D, C, B, A. Rows 8 through 15. Row 15 includes values like 3.3350, 3.2399, 3.1819, 3.1462, 3.1151, 3.0135, 2.8688 and corresponding EFPD and POWER values.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with columns H, G, F, E, D, C, B, A. Rows 8-15. Row 15 includes power limits: 4 EFPD 118 % POWER, 50 EFPD 118 % POWER, 100 EFPD 118 % POWER, 175 EFPD 118 % POWER, 250 EFPD 118 % POWER, 350 EFPD 118 % POWER, 465 EFPD 118 % POWER.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 1.9488	* 2.2728	* 2.2900	* 2.2729	* 1.8190	* 1.9841	* 1.7051	* 3.5163
	* 1.9337	* 2.2866	* 2.3624	* 2.2402	* 1.7510	* 1.9658	* 1.7241	* 3.3611
	* 1.9277	* 2.3304	* 2.4594	* 2.2696	* 1.7654	* 2.0003	* 1.7510	* 3.3203
	* 1.9759	* 2.4090	* 2.5758	* 2.3561	* 1.8511	* 2.0916	* 1.8128	* 3.3606
	* 2.0320	* 2.4590	* 2.6492	* 2.4311	* 1.9423	* 2.1682	* 1.9025	* 3.3841
	* 2.0817	* 2.4700	* 2.6648	* 2.4615	* 2.0277	* 2.2139	* 1.9821	* 3.3111
	* 2.1528	* 2.4970	* 2.6734	* 2.5075	* 2.1236	* 2.2888	* 2.0970	* 3.2572

9	* 2.2728	* 1.8501	* 2.0035	* 1.8692	* 2.1697	* 1.9968	* 1.7157	* 3.5301
	* 2.2866	* 1.8406	* 2.0362	* 1.8049	* 2.1328	* 1.9767	* 1.7377	* 3.3699
	* 2.3304	* 1.8848	* 2.1031	* 1.8116	* 2.1478	* 2.0011	* 1.7551	* 3.3192
	* 2.4090	* 1.9724	* 2.2085	* 1.8791	* 2.2252	* 2.0759	* 1.8108	* 3.3460
	* 2.4590	* 2.0474	* 2.2799	* 1.9621	* 2.2975	* 2.1516	* 1.8989	* 3.3642
	* 2.4700	* 2.1014	* 2.3055	* 2.0377	* 2.3379	* 2.1995	* 1.9809	* 3.3104
	* 2.4970	* 2.1682	* 2.3335	* 2.1289	* 2.3970	* 2.2769	* 2.0985	* 3.2548

10	* 2.2900	* 2.0029	* 2.3293	* 2.3858	* 1.9550	* 2.0577	* 1.7350	* 3.6852
	* 2.3624	* 2.0357	* 2.4001	* 2.3403	* 1.9021	* 2.0031	* 1.7151	* 3.5009
	* 2.4594	* 2.1025	* 2.4951	* 2.3382	* 1.8470	* 2.0050	* 1.7179	* 3.4380
	* 2.5758	* 2.2079	* 2.6210	* 2.3899	* 1.8547	* 2.0490	* 1.7934	* 3.4507
	* 2.6492	* 2.2792	* 2.6907	* 2.4353	* 1.9110	* 2.1059	* 1.8830	* 3.4690
	* 2.6648	* 2.3048	* 2.7011	* 2.4575	* 1.9896	* 2.1493	* 1.9748	* 3.4061
	* 2.6734	* 2.3328	* 2.7088	* 2.5118	* 2.0992	* 2.2337	* 2.0894	* 3.3554

11	* 2.2729	* 1.8691	* 2.3842	* 1.9311	* 2.4971	* 2.0380	* 1.8933	* 4.3818
	* 2.2402	* 1.8048	* 2.3392	* 1.8514	* 2.3899	* 1.9405	* 1.8237	* 4.1311
	* 2.2696	* 1.8115	* 2.3373	* 1.8212	* 2.3264	* 1.8485	* 1.7811	* 4.0176
	* 2.3561	* 1.8790	* 2.3892	* 1.8559	* 2.3294	* 1.8371	* 1.8176	* 3.9806
	* 2.4311	* 1.9620	* 2.4348	* 1.9187	* 2.3710	* 1.8959	* 1.8792	* 3.9635
	* 2.4615	* 2.0376	* 2.4572	* 1.9900	* 2.4026	* 1.9701	* 1.9610	* 3.8527
	* 2.5075	* 2.1289	* 2.5114	* 2.0840	* 2.4719	* 2.0894	* 2.0948	* 3.7580

12	* 1.8190	* 2.1697	* 1.9547	* 2.4969	* 2.2055	* 1.8499	* 3.0780	*
	* 1.7510	* 2.1328	* 1.9017	* 2.3896	* 2.1524	* 1.8239	* 2.8709	*
	* 1.7654	* 2.1478	* 1.8467	* 2.3261	* 2.1426	* 1.8011	* 2.7759	*
	* 1.8511	* 2.2253	* 1.8546	* 2.3292	* 2.1824	* 1.8430	* 2.7596	*
	* 1.9423	* 2.2976	* 1.9109	* 2.3709	* 2.2382	* 1.9118	* 2.7837	*
	* 2.0277	* 2.3380	* 1.9895	* 2.4026	* 2.2687	* 2.0024	* 2.7739	*
	* 2.1236	* 2.3971	* 2.0992	* 2.4718	* 2.3336	* 2.1107	* 2.7693	*

13	* 1.9841	* 1.9965	* 2.0572	* 2.0375	* 1.8498	* 2.7534	* 5.7489	*
	* 1.9658	* 1.9764	* 2.0027	* 1.9401	* 1.8238	* 2.6848	* 5.5152	*
	* 2.0003	* 2.0007	* 2.0046	* 1.8482	* 1.8010	* 2.6793	* 5.3803	*
	* 2.0916	* 2.0757	* 2.0487	* 1.8369	* 1.8429	* 2.7306	* 5.2820	*
	* 2.1682	* 2.1514	* 2.1056	* 1.8958	* 1.9117	* 2.7867	* 5.1752	*
	* 2.2139	* 2.1994	* 2.1491	* 1.9701	* 2.0024	* 2.7923	* 4.9265	*
	* 2.2888	* 2.2768	* 2.2336	* 2.0894	* 2.1107	* 2.8027	* 4.6358	*

14	* 1.7051	* 1.7155	* 1.7346	* 1.8928	* 3.0771	* 5.7501	*	*
	* 1.7241	* 1.7375	* 1.7147	* 1.8232	* 2.8701	* 5.5163	*	*
	* 1.7510	* 1.7550	* 1.7176	* 1.7807	* 2.7752	* 5.3814	*	*
	* 1.8128	* 1.8106	* 1.7932	* 1.8174	* 2.7590	* 5.2831	*	*
	* 1.9025	* 1.8988	* 1.8829	* 1.8791	* 2.7836	* 5.1764	*	*
	* 1.9821	* 1.9809	* 1.9747	* 1.9610	* 2.7739	* 4.9276	*	*
	* 2.0970	* 2.0985	* 2.0893	* 2.0948	* 2.7693	* 4.6369	*	*

15	* 3.5163	* 3.5308	* 3.6809	* 4.3797	* 4 EFPD	118 % POWER		
	* 3.3611	* 3.3702	* 3.4971	* 4.1292	* 50 EFPD	118 % POWER		
	* 3.3203	* 3.3196	* 3.4351	* 4.0161	* 100 EFPD	118 % POWER		
	* 3.3606	* 3.3464	* 3.4496	* 3.9796	* 175 EFPD	118 % POWER		
	* 3.3841	* 3.3645	* 3.4672	* 3.9620	* 250 EFPD	118 % POWER		
	* 3.3111	* 3.3109	* 3.4031	* 3.8515	* 350 EFPD	118 % POWER		
	* 3.2572	* 3.2552	* 3.3525	* 3.7570	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and multiple rows of numerical data. Rows are grouped by numbers 8, 9, 10, 11, 12, 13, 14, and 15. Row 15 includes power limits (EFPD 118 % POWER).

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
 M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
 THIS IS LEVEL 10 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 1.7648	* 2.0747	* 2.0872	* 2.0697	* 1.6492	* 1.8056	* 1.5382	* 3.2496
	* 1.7523	* 2.0817	* 2.1473	* 2.0345	* 1.5814	* 1.7847	* 1.5501	* 3.0945
	* 1.7389	* 2.1140	* 2.2277	* 2.0538	* 1.5896	* 1.8145	* 1.5711	* 3.0552
	* 1.7767	* 2.1837	* 2.3533	* 2.1403	* 1.6760	* 1.9110	* 1.6372	* 3.1082
	* 1.8295	* 2.2344	* 2.4290	* 2.2123	* 1.7660	* 1.9921	* 1.7300	* 3.1465
	* 1.8947	* 2.2618	* 2.4615	* 2.2685	* 1.8658	* 2.0625	* 1.8270	* 3.1205
	* 1.9185	* 2.2423	* 2.4264	* 2.2658	* 1.9057	* 2.0762	* 1.8772	* 3.0058

9	* 2.0747	* 1.6769	* 1.8204	* 1.6863	* 1.9779	* 1.8142	* 1.5459	* 3.2535
	* 2.0817	* 1.6616	* 1.8455	* 1.6269	* 1.9384	* 1.7913	* 1.5587	* 3.0943
	* 2.1140	* 1.6938	* 1.8993	* 1.6240	* 1.9485	* 1.8087	* 1.5726	* 3.0513
	* 2.1837	* 1.7695	* 1.9981	* 1.6931	* 2.0286	* 1.8929	* 1.6323	* 3.0949
	* 2.2344	* 1.8398	* 2.0650	* 1.7763	* 2.1017	* 1.9757	* 1.7250	* 3.1371
	* 2.2618	* 1.9077	* 2.1072	* 1.8680	* 2.1640	* 2.0484	* 1.8250	* 3.1359
	* 2.2423	* 1.9312	* 2.0974	* 1.9064	* 2.1714	* 2.0617	* 1.8779	* 3.0208

10	* 2.0872	* 1.8198	* 2.1240	* 2.1755	* 1.7630	* 1.8642	* 1.5597	* 3.3981
	* 2.1473	* 1.8449	* 2.1825	* 2.1274	* 1.7102	* 1.8074	* 1.5329	* 3.2152
	* 2.2277	* 1.8987	* 2.2615	* 2.1174	* 1.6589	* 1.8092	* 1.5349	* 3.1570
	* 2.3533	* 1.9975	* 2.3803	* 2.1693	* 1.6713	* 1.8597	* 1.6138	* 3.1927
	* 2.4290	* 2.0643	* 2.4515	* 2.2232	* 1.7359	* 1.9277	* 1.7087	* 3.2378
	* 2.4615	* 2.1065	* 2.4815	* 2.2721	* 1.8352	* 1.9979	* 1.8188	* 3.2381
	* 2.4264	* 2.0967	* 2.4455	* 2.2708	* 1.8823	* 2.0163	* 1.8779	* 3.1375

11	* 2.0697	* 1.6862	* 2.1738	* 1.7437	* 2.2767	* 1.8272	* 1.6960	* 4.0421
	* 2.0345	* 1.6267	* 2.1263	* 1.6664	* 2.1602	* 1.7331	* 1.6245	* 3.7921
	* 2.0538	* 1.6238	* 2.1165	* 1.6334	* 2.1046	* 1.6496	* 1.5864	* 3.6927
	* 2.1403	* 1.6930	* 2.1685	* 1.6707	* 2.1191	* 1.6487	* 1.6293	* 3.6904
	* 2.2123	* 1.7763	* 2.2228	* 1.7404	* 2.1748	* 1.7196	* 1.6988	* 3.7049
	* 2.2685	* 1.8680	* 2.2718	* 1.8345	* 2.2385	* 1.8162	* 1.8021	* 3.6576
	* 2.2658	* 1.9064	* 2.2705	* 1.8682	* 2.2427	* 1.8710	* 1.8885	* 3.5046

12	* 1.6492	* 1.9778	* 1.7628	* 2.2765	* 1.9966	* 1.6613	* 2.8351	*
	* 1.5814	* 1.9384	* 1.7098	* 2.1599	* 1.9449	* 1.6308	* 2.6315	*
	* 1.5896	* 1.9485	* 1.6587	* 2.1044	* 1.9368	* 1.6107	* 2.5454	*
	* 1.6760	* 2.0287	* 1.6712	* 2.1190	* 1.9786	* 1.6508	* 2.5384	*
	* 1.7660	* 2.1018	* 1.7358	* 2.1747	* 2.0497	* 1.7320	* 2.5849	*
	* 1.8658	* 2.1641	* 1.8352	* 2.2385	* 2.1134	* 1.8464	* 2.6210	*
	* 1.9057	* 2.1716	* 1.8823	* 2.2427	* 2.1173	* 1.9096	* 2.5627	*

13	* 1.8056	* 1.8139	* 1.8638	* 1.8268	* 1.6612	* 2.5295	* 5.3392	*
	* 1.7847	* 1.7909	* 1.8071	* 1.7328	* 1.6307	* 2.4594	* 5.0931	*
	* 1.8145	* 1.8084	* 1.8089	* 1.6494	* 1.6106	* 2.4565	* 4.9650	*
	* 1.9110	* 1.8926	* 1.8594	* 1.6486	* 1.6508	* 2.5101	* 4.8734	*
	* 1.9921	* 1.9755	* 1.9275	* 1.7196	* 1.7320	* 2.5888	* 4.8189	*
	* 2.0625	* 2.0483	* 1.9977	* 1.8162	* 1.8464	* 2.6415	* 4.6421	*
	* 2.0762	* 2.0616	* 2.0162	* 1.8710	* 1.9097	* 2.6044	* 4.3358	*

14	* 1.5382	* 1.5457	* 1.5593	* 1.6956	* 2.8343	* 5.3404	*	*
	* 1.5501	* 1.5586	* 1.5326	* 1.6241	* 2.6308	* 5.0942	*	*
	* 1.5711	* 1.5725	* 1.5346	* 1.5861	* 2.5448	* 4.9661	*	*
	* 1.6372	* 1.6322	* 1.6137	* 1.6292	* 2.5378	* 4.8745	*	*
	* 1.7300	* 1.7249	* 1.7086	* 1.6987	* 2.5849	* 4.8201	*	*
	* 1.8270	* 1.8250	* 1.8187	* 1.8021	* 2.6210	* 4.6432	*	*
	* 1.8772	* 1.8779	* 1.8779	* 1.8885	* 2.5628	* 4.3368	*	*

15	* 3.2496	* 3.2545	* 3.3928	* 4.0400	* 4	EFFD 118 % POWER		
	* 3.0945	* 3.0952	* 3.2112	* 3.7902	* 50	EFFD 118 % POWER		
	* 3.0552	* 3.0522	* 3.1534	* 3.6912	* 100	EFFD 118 % POWER		
	* 3.1082	* 3.0959	* 3.1916	* 3.6893	* 175	EFFD 118 % POWER		
	* 3.1465	* 3.1383	* 3.2368	* 3.7034	* 250	EFFD 118 % POWER		
	* 3.1205	* 3.1365	* 3.2362	* 3.6563	* 350	EFFD 118 % POWER		
	* 3.0058	* 3.0213	* 3.1330	* 3.5034	* 465	EFFD 118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Each row contains numerical values for each column, separated by asterisks. Row 15 includes power level indicators like '4 EFPD 118 % POWER'.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
 M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
 THIS IS LEVEL 8 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 1.5995	* 1.8792	* 1.8901	* 1.8740	* 1.4872	* 1.6213	* 1.3814	* 2.9168
	* 1.5928	* 1.8940	* 1.9568	* 1.8507	* 1.4341	* 1.6103	* 1.3977	* 2.7882
	* 1.5756	* 1.9160	* 2.0247	* 1.8603	* 1.4357	* 1.6301	* 1.4104	* 2.7395
	* 1.5841	* 1.9501	* 2.0920	* 1.9091	* 1.4899	* 1.6944	* 1.4481	* 2.7448
	* 1.6140	* 1.9744	* 2.1350	* 1.9568	* 1.5565	* 1.7533	* 1.5177	* 2.7540
	* 1.6624	* 1.9899	* 2.1567	* 2.0015	* 1.6418	* 1.8115	* 1.6023	* 2.7212
	* 1.7076	* 1.9946	* 2.1467	* 2.0227	* 1.7010	* 1.8506	* 1.6741	* 2.6456

9	* 1.8792	* 1.5144	* 1.6421	* 1.5271	* 1.7876	* 1.6286	* 1.3874	* 2.9168
	* 1.8940	* 1.5106	* 1.6745	* 1.4775	* 1.7588	* 1.6116	* 1.4041	* 2.7829
	* 1.9160	* 1.5328	* 1.7175	* 1.4678	* 1.7607	* 1.6211	* 1.4087	* 2.7292
	* 1.9501	* 1.5783	* 1.7834	* 1.5075	* 1.8069	* 1.6751	* 1.4414	* 2.7284
	* 1.9744	* 1.6250	* 1.8281	* 1.5673	* 1.8568	* 1.7357	* 1.5110	* 2.7344
	* 1.9899	* 1.6768	* 1.8594	* 1.6439	* 1.9080	* 1.7973	* 1.5990	* 2.7173
	* 1.9946	* 1.7195	* 1.8699	* 1.7012	* 1.9372	* 1.8368	* 1.6744	* 2.6410

10	* 1.8901	* 1.6414	* 1.9255	* 1.9692	* 1.5936	* 1.6694	* 1.3929	* 3.0247
	* 1.9568	* 1.6739	* 1.9905	* 1.9334	* 1.5499	* 1.6245	* 1.3742	* 2.8730
	* 2.0247	* 1.7168	* 2.0569	* 1.9162	* 1.4960	* 1.6186	* 1.3694	* 2.8075
	* 2.0920	* 1.7827	* 2.1325	* 1.9316	* 1.4811	* 1.6405	* 1.4219	* 2.7985
	* 2.1350	* 1.8274	* 2.1681	* 1.9609	* 1.5215	* 1.6865	* 1.4940	* 2.8085
	* 2.1567	* 1.8587	* 2.1884	* 1.9990	* 1.6052	* 1.7464	* 1.5907	* 2.7898
	* 2.1467	* 1.8692	* 2.1766	* 2.0221	* 1.6754	* 1.7942	* 1.6726	* 2.7156

11	* 1.8740	* 1.5271	* 1.9676	* 1.5765	* 2.0493	* 1.6361	* 1.5144	* 3.5894
	* 1.8507	* 1.4773	* 1.9323	* 1.5078	* 1.9526	* 1.5581	* 1.4554	* 3.3798
	* 1.8603	* 1.4676	* 1.9152	* 1.4699	* 1.8918	* 1.4748	* 1.4133	* 3.2723
	* 1.9091	* 1.5074	* 1.9311	* 1.4814	* 1.8771	* 1.4513	* 1.4313	* 3.2203
	* 1.9568	* 1.5672	* 1.9605	* 1.5266	* 1.9077	* 1.4993	* 1.4809	* 3.2030
	* 2.0015	* 1.6439	* 1.9986	* 1.6041	* 1.9582	* 1.5850	* 1.5715	* 3.1510
	* 2.0227	* 1.7011	* 2.0218	* 1.6607	* 1.9912	* 1.6645	* 1.6784	* 3.0442

12	* 1.4872	* 1.7875	* 1.5934	* 2.0494	* 1.7757	* 1.4796	* 2.5030	*
	* 1.4341	* 1.7589	* 1.5496	* 1.9523	* 1.7396	* 1.4564	* 2.3294	*
	* 1.4357	* 1.7608	* 1.4958	* 1.8915	* 1.7245	* 1.4315	* 2.2408	*
	* 1.4899	* 1.8070	* 1.4809	* 1.8770	* 1.7435	* 1.4508	* 2.2077	*
	* 1.5565	* 1.8570	* 1.5214	* 1.9076	* 1.7923	* 1.5088	* 2.2286	*
	* 1.6418	* 1.9081	* 1.6052	* 1.9581	* 1.8464	* 1.6085	* 2.2527	*
	* 1.7010	* 1.9374	* 1.6754	* 1.9912	* 1.8817	* 1.6966	* 2.2327	*

13	* 1.6213	* 1.6283	* 1.6690	* 1.6358	* 1.4795	* 2.2358	* 4.7572	*
	* 1.6103	* 1.6113	* 1.6241	* 1.5578	* 1.4563	* 2.1775	* 4.5516	*
	* 1.6301	* 1.6208	* 1.6183	* 1.4746	* 1.4314	* 2.1653	* 4.4102	*
	* 1.6944	* 1.6749	* 1.6402	* 1.4511	* 1.4508	* 2.1894	* 4.2822	*
	* 1.7533	* 1.7355	* 1.6864	* 1.4992	* 1.5088	* 2.2389	* 4.1948	*
	* 1.8115	* 1.7972	* 1.7463	* 1.5850	* 1.6085	* 2.2776	* 4.0338	*
	* 1.8506	* 1.8367	* 1.7941	* 1.6645	* 1.6966	* 2.2752	* 3.7934	*

14	* 1.3814	* 1.3872	* 1.3926	* 1.5140	* 2.5024	* 4.7583	*	*
	* 1.3977	* 1.4039	* 1.3739	* 1.4550	* 2.3288	* 4.5526	*	*
	* 1.4104	* 1.4085	* 1.3692	* 1.4131	* 2.2403	* 4.4112	*	*
	* 1.4481	* 1.4412	* 1.4218	* 1.4311	* 2.2073	* 4.2832	*	*
	* 1.5177	* 1.5109	* 1.4939	* 1.4809	* 2.2286	* 4.1959	*	*
	* 1.6023	* 1.5990	* 1.5906	* 1.5715	* 2.2528	* 4.0348	*	*
	* 1.6741	* 1.6744	* 1.6726	* 1.6784	* 2.2328	* 3.7943	*	*

15	* 2.9168	* 2.9177	* 3.0211	* 3.5876	* 4	EFFD 118	%	POWER
	* 2.7882	* 2.7837	* 2.8698	* 3.3782	* 50	EFFD 118	%	POWER
	* 2.7395	* 2.7301	* 2.8045	* 3.2710	* 100	EFFD 118	%	POWER
	* 2.7448	* 2.7288	* 2.7976	* 3.2194	* 175	EFFD 118	%	POWER
	* 2.7540	* 2.7348	* 2.8069	* 3.2017	* 250	EFFD 118	%	POWER
	* 2.7212	* 2.7178	* 2.7872	* 3.1500	* 350	EFFD 118	%	POWER
	* 2.6456	* 2.6414	* 2.7131	* 3.0433	* 465	EFFD 118	%	POWER

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with columns H, G, F, E, D, C, B, A and rows 8 through 15. Row 15 includes power limits: 4 EFPD 118 % POWER, 50 EFPD 118 % POWER, 100 EFPD 118 % POWER, 175 EFPD 118 % POWER, 250 EFPD 118 % POWER, 350 EFPD 118 % POWER, 465 EFPD 118 % POWER.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with columns H, G, F, E, D, C, B, A. Rows 8 through 15. Row 15 includes power limits: 4 EFPD 118 % POWER, 50 EFPD 118 % POWER, 100 EFPD 118 % POWER, 175 EFPD 118 % POWER, 250 EFPD 118 % POWER, 350 EFPD 118 % POWER, 465 EFPD 118 % POWER.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
 M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
 THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 1.4206	* 1.6754	* 1.6850	* 1.6711	* 1.3216	* 1.4326	* 1.2202	* 2.6337
	* 1.4657	* 1.7495	* 1.8107	* 1.7112	* 1.3227	* 1.4761	* 1.2810	* 2.6091
	* 1.4477	* 1.7667	* 1.8737	* 1.7197	* 1.3220	* 1.5001	* 1.2984	* 2.5712
	* 1.3904	* 1.7241	* 1.8621	* 1.6975	* 1.3157	* 1.5082	* 1.2859	* 2.4825
	* 1.3549	* 1.6763	* 1.8327	* 1.6777	* 1.3222	* 1.4974	* 1.2876	* 2.3887
	* 1.3484	* 1.6372	* 1.7965	* 1.6663	* 1.3528	* 1.5003	* 1.3162	* 2.2814
	* 1.3721	* 1.6275	* 1.7722	* 1.6709	* 1.3915	* 1.5200	* 1.3640	* 2.1912

9	* 1.6754	* 1.3455	* 1.4538	* 1.3571	* 1.5905	* 1.4382	* 1.2247	* 2.6273
	* 1.7495	* 1.3919	* 1.5377	* 1.3626	* 1.6204	* 1.4748	* 1.2857	* 2.5981
	* 1.7667	* 1.4097	* 1.5779	* 1.3514	* 1.6226	* 1.4887	* 1.2949	* 2.5558
	* 1.7241	* 1.3912	* 1.5767	* 1.3313	* 1.6011	* 1.4895	* 1.2779	* 2.4659
	* 1.6763	* 1.3733	* 1.5599	* 1.3316	* 1.5876	* 1.4780	* 1.2792	* 2.3699
	* 1.6372	* 1.3719	* 1.5414	* 1.3537	* 1.5855	* 1.4846	* 1.3109	* 2.2773
	* 1.6275	* 1.3958	* 1.5379	* 1.3906	* 1.5982	* 1.5057	* 1.3621	* 2.1863

10	* 1.6850	* 1.4531	* 1.7177	* 1.7574	* 1.4159	* 1.4707	* 1.2248	* 2.7188
	* 1.8107	* 1.5370	* 1.8419	* 1.7891	* 1.4315	* 1.4857	* 1.2541	* 2.6787
	* 1.8737	* 1.5772	* 1.9047	* 1.7735	* 1.3868	* 1.4859	* 1.2526	* 2.6259
	* 1.8621	* 1.5759	* 1.8996	* 1.7145	* 1.3152	* 1.4564	* 1.2586	* 2.5267
	* 1.8327	* 1.5592	* 1.8618	* 1.6769	* 1.2936	* 1.4296	* 1.2601	* 2.4257
	* 1.7965	* 1.5407	* 1.8250	* 1.6589	* 1.3145	* 1.4336	* 1.2983	* 2.3278
	* 1.7722	* 1.5372	* 1.7983	* 1.6647	* 1.3614	* 1.4623	* 1.3552	* 2.2426

11	* 1.6711	* 1.3571	* 1.7557	* 1.3965	* 1.8080	* 1.4444	* 1.3346	* 3.2325
	* 1.7112	* 1.3625	* 1.7880	* 1.3819	* 1.8022	* 1.4319	* 1.3324	* 3.1607
	* 1.7197	* 1.3513	* 1.7725	* 1.3483	* 1.7488	* 1.3611	* 1.2964	* 3.0705
	* 1.6975	* 1.3312	* 1.7139	* 1.3070	* 1.6687	* 1.2887	* 1.2651	* 2.9181
	* 1.6777	* 1.3315	* 1.6765	* 1.2937	* 1.6296	* 1.2646	* 1.2482	* 2.7735
	* 1.6663	* 1.3536	* 1.6586	* 1.3138	* 1.6161	* 1.2894	* 1.2797	* 2.6365
	* 1.6709	* 1.3905	* 1.6644	* 1.3486	* 1.6297	* 1.3469	* 1.3567	* 2.5167

12	* 1.3216	* 1.5905	* 1.4157	* 1.8081	* 1.5394	* 1.2918	* 2.2299	*
	* 1.3227	* 1.6204	* 1.4312	* 1.8019	* 1.5720	* 1.3229	* 2.1569	*
	* 1.3220	* 1.6227	* 1.3866	* 1.7486	* 1.5685	* 1.3055	* 2.0800	*
	* 1.3157	* 1.6012	* 1.3151	* 1.6685	* 1.5336	* 1.2799	* 1.9779	*
	* 1.3222	* 1.5877	* 1.2935	* 1.6296	* 1.5063	* 1.2661	* 1.8994	*
	* 1.3528	* 1.5856	* 1.3145	* 1.6161	* 1.5015	* 1.3033	* 1.8549	*
	* 1.3915	* 1.5983	* 1.3614	* 1.6297	* 1.5178	* 1.3645	* 1.8193	*

13	* 1.4326	* 1.4379	* 1.4704	* 1.4441	* 1.2917	* 1.9696	* 4.2604	*
	* 1.4761	* 1.4744	* 1.4854	* 1.4316	* 1.3228	* 1.9930	* 4.2380	*
	* 1.5001	* 1.4884	* 1.4856	* 1.3609	* 1.3055	* 1.9882	* 4.1178	*
	* 1.5082	* 1.4892	* 1.4562	* 1.2885	* 1.2799	* 1.9432	* 3.8582	*
	* 1.4974	* 1.4778	* 1.4295	* 1.2645	* 1.2661	* 1.8977	* 3.6369	*
	* 1.5003	* 1.4845	* 1.4335	* 1.2894	* 1.3033	* 1.8664	* 3.3873	*
	* 1.5200	* 1.5056	* 1.4622	* 1.3469	* 1.3646	* 1.8458	* 3.1450	*

14	* 1.2202	* 1.2245	* 1.2245	* 1.3343	* 2.2294	* 4.2614	*	*
	* 1.2810	* 1.2855	* 1.2538	* 1.3321	* 2.1564	* 4.2390	*	*
	* 1.2984	* 1.2947	* 1.2523	* 1.2961	* 2.0795	* 4.1188	*	*
	* 1.2859	* 1.2778	* 1.2584	* 1.2649	* 1.9776	* 3.8592	*	*
	* 1.2876	* 1.2792	* 1.2600	* 1.2482	* 1.8994	* 3.6379	*	*
	* 1.3162	* 1.3109	* 1.2982	* 1.2797	* 1.8549	* 3.3882	*	*
	* 1.3640	* 1.3621	* 1.3552	* 1.3568	* 1.8194	* 3.1458	*	*

15	* 2.6337	* 2.6282	* 2.7154	* 3.2307	* 4 EFPD	118 % POWER		
	* 2.6091	* 2.5990	* 2.6756	* 3.1590	* 50 EFPD	118 % POWER		
	* 2.5712	* 2.5567	* 2.6231	* 3.0691	* 100 EFPD	118 % POWER		
	* 2.4825	* 2.4671	* 2.5259	* 2.9171	* 175 EFPD	118 % POWER		
	* 2.3887	* 2.3704	* 2.4240	* 2.7722	* 250 EFPD	118 % POWER		
	* 2.2814	* 2.2778	* 2.3254	* 2.6356	* 350 EFPD	118 % POWER		
	* 2.1912	* 2.1867	* 2.2406	* 2.5159	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Each row contains numerical values and some rows include text like '4 EFPD 118 % POWER'. The table is bounded by asterisks.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.3204	* 1.6353	* 1.6755	* 1.6297	* 1.2806	* 1.4158	* 1.2148	* 2.5970
	* 1.5232	* 1.8026	* 1.8917	* 1.7703	* 1.3857	* 1.5411	* 1.3547	* 2.7406
	* 1.5505	* 1.8625	* 1.9880	* 1.8206	* 1.4194	* 1.5978	* 1.4111	* 2.7668
	* 1.4798	* 1.8013	* 1.9648	* 1.7767	* 1.3962	* 1.5724	* 1.3726	* 2.6373
	* 1.3920	* 1.6981	* 1.8770	* 1.7019	* 1.3527	* 1.5196	* 1.3294	* 2.4727
	* 1.3178	* 1.5869	* 1.7584	* 1.6190	* 1.3194	* 1.4534	* 1.2894	* 2.2651
	* 1.2848	* 1.5195	* 1.6687	* 1.5633	* 1.3006	* 1.4115	* 1.2764	* 2.0908
9	* 1.6353	* 1.3190	* 1.4396	* 1.2998	* 1.5479	* 1.4210	* 1.2195	* 2.5938
	* 1.8026	* 1.4618	* 1.6025	* 1.4274	* 1.6725	* 1.5400	* 1.3598	* 2.7316
	* 1.8625	* 1.5146	* 1.6744	* 1.4518	* 1.7147	* 1.5878	* 1.4083	* 2.7546
	* 1.8013	* 1.4805	* 1.6458	* 1.4162	* 1.6728	* 1.5537	* 1.3667	* 2.6211
	* 1.6981	* 1.4065	* 1.5753	* 1.3635	* 1.6057	* 1.4991	* 1.3212	* 2.4584
	* 1.5869	* 1.3393	* 1.4890	* 1.3221	* 1.5354	* 1.4381	* 1.2840	* 2.2673
	* 1.5195	* 1.3044	* 1.4277	* 1.3007	* 1.4908	* 1.4004	* 1.2739	* 2.0964
10	* 1.6755	* 1.4388	* 1.7098	* 1.7151	* 1.3318	* 1.4445	* 1.2154	* 2.7016
	* 1.8917	* 1.6017	* 1.9220	* 1.8444	* 1.4842	* 1.5484	* 1.3251	* 2.8323
	* 1.9880	* 1.6735	* 2.0183	* 1.8736	* 1.4857	* 1.5850	* 1.3569	* 2.8459
	* 1.9648	* 1.6450	* 1.9904	* 1.7946	* 1.3986	* 1.5254	* 1.3423	* 2.6997
	* 1.8770	* 1.5745	* 1.8977	* 1.7013	* 1.3301	* 1.4542	* 1.3032	* 2.5321
	* 1.7584	* 1.4883	* 1.7837	* 1.6146	* 1.2902	* 1.3921	* 1.2741	* 2.3326
	* 1.6687	* 1.4270	* 1.6932	* 1.5595	* 1.2739	* 1.3598	* 1.2681	* 2.1636
11	* 1.6297	* 1.2996	* 1.7140	* 1.3261	* 1.7472	* 1.3510	* 1.3143	* 3.2473
	* 1.7703	* 1.4272	* 1.8434	* 1.4357	* 1.8437	* 1.4987	* 1.4023	* 3.3794
	* 1.8206	* 1.4516	* 1.8726	* 1.4420	* 1.8395	* 1.4772	* 1.4056	* 3.3663
	* 1.7767	* 1.4161	* 1.7941	* 1.3887	* 1.7456	* 1.3809	* 1.3560	* 3.1585
	* 1.7019	* 1.3635	* 1.7009	* 1.3264	* 1.6553	* 1.3109	* 1.2960	* 2.9327
	* 1.6190	* 1.3221	* 1.6144	* 1.2849	* 1.5765	* 1.2669	* 1.2616	* 2.6633
	* 1.5633	* 1.3006	* 1.5593	* 1.2634	* 1.5285	* 1.2596	* 1.2729	* 2.4414
12	* 1.2806	* 1.5480	* 1.3316	* 1.7471	* 1.5198	* 1.2773	* 2.1994	*
	* 1.3857	* 1.6726	* 1.4839	* 1.8435	* 1.6359	* 1.3917	* 2.2734	*
	* 1.4194	* 1.7147	* 1.4854	* 1.8393	* 1.6646	* 1.4099	* 2.2554	*
	* 1.3962	* 1.6729	* 1.3984	* 1.7455	* 1.5994	* 1.3634	* 2.1174	*
	* 1.3527	* 1.6059	* 1.3301	* 1.6552	* 1.5286	* 1.3067	* 1.9801	*
	* 1.3194	* 1.5355	* 1.2902	* 1.5765	* 1.4552	* 1.2777	* 1.8478	*
	* 1.3006	* 1.4909	* 1.2739	* 1.5286	* 1.4080	* 1.2750	* 1.7409	*
13	* 1.4158	* 1.4207	* 1.4442	* 1.3508	* 1.2772	* 1.9752	* 4.3098	*
	* 1.5411	* 1.5396	* 1.5481	* 1.4984	* 1.3916	* 2.1105	* 4.5186	*
	* 1.5978	* 1.5874	* 1.5848	* 1.4770	* 1.4098	* 2.1447	* 4.4812	*
	* 1.5724	* 1.5534	* 1.5252	* 1.3808	* 1.3633	* 2.0604	* 4.1555	*
	* 1.5196	* 1.4989	* 1.4541	* 1.3108	* 1.3067	* 1.9591	* 3.7966	*
	* 1.4534	* 1.4380	* 1.3921	* 1.2669	* 1.2777	* 1.8426	* 3.3944	*
	* 1.4115	* 1.4003	* 1.3598	* 1.2597	* 1.2751	* 1.7493	* 3.0257	*
14	* 1.2148	* 1.2193	* 1.2151	* 1.3140	* 2.1989	* 4.3109	*	*
	* 1.3547	* 1.3596	* 1.3248	* 1.4020	* 2.2728	* 4.5198	*	*
	* 1.4111	* 1.4081	* 1.3566	* 1.4053	* 2.2549	* 4.4823	*	*
	* 1.3726	* 1.3666	* 1.3422	* 1.3558	* 2.1170	* 4.1566	*	*
	* 1.3294	* 1.3211	* 1.3031	* 1.2959	* 1.9802	* 3.7977	*	*
	* 1.2894	* 1.2840	* 1.2741	* 1.2616	* 1.8479	* 3.3954	*	*
	* 1.2764	* 1.2739	* 1.2680	* 1.2729	* 1.7410	* 3.0265	*	*
15	* 2.5970	* 2.5947	* 2.6984	* 3.2454	* 4 EFPD	118 % POWER		
	* 2.7406	* 2.7326	* 2.8291	* 3.3775	* 50 EFPD	118 % POWER		
	* 2.7668	* 2.7557	* 2.8437	* 3.3646	* 100 EFPD	118 % POWER		
	* 2.6373	* 2.6221	* 2.6987	* 3.1573	* 175 EFPD	118 % POWER		
	* 2.4727	* 2.4594	* 2.5313	* 2.9312	* 250 EFPD	118 % POWER		
	* 2.2651	* 2.2685	* 2.3312	* 2.6621	* 350 EFPD	118 % POWER		
	* 2.0908	* 2.0974	* 2.1614	* 2.4404	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 1.3204	* 1.8246	* 1.9632	* 1.8327	* 1.2806	* 1.6503	* 1.2754	* 2.8937
	* 1.5495	* 2.0919	* 2.2704	* 2.0737	* 1.4766	* 1.8561	* 1.4912	* 3.1774
	* 1.6767	* 2.2074	* 2.4095	* 2.1775	* 1.5935	* 1.9415	* 1.5920	* 3.2726
	* 1.6944	* 2.1500	* 2.3636	* 2.1316	* 1.6304	* 1.9037	* 1.6100	* 3.1449
	* 1.6237	* 1.9993	* 2.2097	* 2.0118	* 1.5912	* 1.8050	* 1.5783	* 2.9203
	* 1.5283	* 1.8145	* 2.0005	* 1.8545	* 1.5293	* 1.6773	* 1.5117	* 2.6195
	* 1.4455	* 1.6693	* 1.8231	* 1.7220	* 1.4579	* 1.5626	* 1.4454	* 2.3366

9	* 1.8246	* 1.3190	* 1.6494	* 1.2998	* 1.7276	* 1.6577	* 1.2806	* 2.8719
	* 2.0919	* 1.5538	* 1.8963	* 1.5035	* 1.9477	* 1.8558	* 1.4945	* 3.1493
	* 2.2074	* 1.6885	* 2.0117	* 1.6192	* 2.0415	* 1.9326	* 1.5932	* 3.2379
	* 2.1500	* 1.7138	* 1.9773	* 1.6467	* 1.9996	* 1.8861	* 1.6053	* 3.1041
	* 1.9993	* 1.6476	* 1.8578	* 1.6024	* 1.8914	* 1.7858	* 1.5718	* 2.8816
	* 1.8145	* 1.5503	* 1.6978	* 1.5322	* 1.7518	* 1.6611	* 1.5056	* 2.6033
	* 1.6693	* 1.4633	* 1.5631	* 1.4587	* 1.6340	* 1.5501	* 1.4422	* 2.3268

10	* 1.9632	* 1.6485	* 2.0113	* 1.9034	* 1.3318	* 1.6748	* 1.3046	* 3.0097
	* 2.2704	* 1.8954	* 2.3177	* 2.1369	* 1.5197	* 1.8609	* 1.5082	* 3.2864
	* 2.4095	* 2.0107	* 2.4549	* 2.2181	* 1.6050	* 1.9181	* 1.5959	* 3.3665
	* 2.3636	* 1.9764	* 2.4018	* 2.1401	* 1.6081	* 1.8444	* 1.5968	* 3.2184
	* 2.2097	* 1.8570	* 2.2412	* 2.0061	* 1.5597	* 1.7364	* 1.5588	* 2.9850
	* 2.0005	* 1.6970	* 2.0330	* 1.8481	* 1.5013	* 1.6123	* 1.4972	* 2.6892
	* 1.8231	* 1.5624	* 1.8533	* 1.7188	* 1.4389	* 1.5063	* 1.4382	* 2.4036

11	* 1.8327	* 1.2996	* 1.9023	* 1.3261	* 1.9271	* 1.3510	* 1.4151	* 3.6556
	* 2.0737	* 1.5033	* 2.1358	* 1.5111	* 2.1194	* 1.5348	* 1.6016	* 3.9520
	* 2.1775	* 1.6190	* 2.2172	* 1.5989	* 2.1720	* 1.6056	* 1.6631	* 4.0092
	* 2.1316	* 1.6466	* 2.1395	* 1.6052	* 2.0799	* 1.5933	* 1.6236	* 3.7873
	* 2.0118	* 1.6023	* 2.0057	* 1.5534	* 1.9510	* 1.5486	* 1.5605	* 3.4765
	* 1.8545	* 1.5322	* 1.8478	* 1.4870	* 1.8055	* 1.4887	* 1.4904	* 3.1020
	* 1.7220	* 1.4587	* 1.7185	* 1.4179	* 1.6883	* 1.4284	* 1.4500	* 2.7539

12	* 1.2806	* 1.7276	* 1.3316	* 1.9269	* 1.7534	* 1.3834	* 2.3909	*
	* 1.4766	* 1.9478	* 1.5194	* 2.1191	* 1.9395	* 1.5850	* 2.5962	*
	* 1.5935	* 2.0416	* 1.6048	* 2.1718	* 1.9955	* 1.6482	* 2.6443	*
	* 1.6304	* 1.9997	* 1.6079	* 2.0797	* 1.9148	* 1.6188	* 2.5205	*
	* 1.5912	* 1.8915	* 1.5596	* 1.9509	* 1.7929	* 1.5615	* 2.3479	*
	* 1.5293	* 1.7520	* 1.5013	* 1.8055	* 1.6549	* 1.4995	* 2.1506	*
	* 1.4579	* 1.6342	* 1.4389	* 1.6883	* 1.5358	* 1.4415	* 1.9620	*

13	* 1.6503	* 1.6574	* 1.6745	* 1.3508	* 1.3833	* 2.2631	* 4.9556	*
	* 1.8561	* 1.8554	* 1.8606	* 1.5346	* 1.5849	* 2.4920	* 5.3532	*
	* 1.9415	* 1.9323	* 1.9177	* 1.6054	* 1.6481	* 2.5643	* 5.3885	*
	* 1.9037	* 1.8858	* 1.8442	* 1.5932	* 1.6188	* 2.4643	* 5.0016	*
	* 1.8050	* 1.7856	* 1.7363	* 1.5486	* 1.5615	* 2.3058	* 4.5043	*
	* 1.6773	* 1.6610	* 1.6122	* 1.4887	* 1.4996	* 2.1164	* 3.9172	*
	* 1.5626	* 1.5500	* 1.5063	* 1.4284	* 1.4415	* 1.9417	* 3.3738	*

14	* 1.2754	* 1.2805	* 1.3043	* 1.4148	* 2.3904	* 4.9567	*	*
	* 1.4912	* 1.4944	* 1.5079	* 1.6013	* 2.5957	* 5.3544	*	*
	* 1.5920	* 1.5931	* 1.5956	* 1.6628	* 2.6438	* 5.3897	*	*
	* 1.6100	* 1.6052	* 1.5966	* 1.6234	* 2.5201	* 5.0028	*	*
	* 1.5783	* 1.5717	* 1.5587	* 1.5604	* 2.3480	* 4.5054	*	*
	* 1.5117	* 1.5056	* 1.4971	* 1.4903	* 2.1507	* 3.9182	*	*
	* 1.4454	* 1.4422	* 1.4381	* 1.4500	* 1.9621	* 3.3746	*	*

15	* 2.8937	* 2.8726	* 3.0087	* 3.6538	* 4 EFPD	118 % POWER		
	* 3.1774	* 3.1499	* 3.2854	* 3.9502	* 50 EFPD	118 % POWER		
	* 3.2726	* 3.2386	* 3.3655	* 4.0076	* 100 EFPD	118 % POWER		
	* 3.1449	* 3.1051	* 3.2177	* 3.7860	* 175 EFPD	118 % POWER		
	* 2.9203	* 2.8826	* 2.9831	* 3.4749	* 250 EFPD	118 % POWER		
	* 2.6195	* 2.6044	* 2.6867	* 3.1007	* 350 EFPD	118 % POWER		
	* 2.3366	* 2.3278	* 2.4014	* 2.7527	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-2 (CONTINUED)
M-SUB-C VALUES (F-SUB-Q RPS MARGIN) NORMAL OPERATION
THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8	* 3.2153	* 4.0687	* 4.3731	* 4.0218	* 3.1677	* 4.0251	* 3.4403	* 6.6617
	* 3.8656	* 4.7747	* 5.1239	* 4.6539	* 3.7286	* 4.6249	* 4.0631	* 7.4772
	* 4.1879	* 5.0667	* 5.4337	* 4.9096	* 4.0165	* 4.8316	* 4.3022	* 7.7503
	* 4.1544	* 4.8534	* 5.2110	* 4.7231	* 4.0181	* 4.6257	* 4.2258	* 7.3499
	* 3.8296	* 4.3578	* 4.6893	* 4.2940	* 3.7617	* 4.2042	* 3.9602	* 6.6099
	* 3.3752	* 3.7215	* 3.9979	* 3.7230	* 3.3815	* 3.6566	* 3.5383	* 5.6038
	* 2.9481	* 3.1748	* 3.3824	* 3.2033	* 2.9760	* 3.1484	* 3.1085	* 4.6563

9	* 4.0687	* 3.2743	* 4.0100	* 3.2384	* 3.9001	* 4.0895	* 3.4579	* 6.6400
	* 4.7747	* 3.9393	* 4.6846	* 3.8238	* 4.4907	* 4.6350	* 4.0762	* 7.4371
	* 5.0667	* 4.2795	* 4.9680	* 4.1116	* 4.7231	* 4.8187	* 4.3083	* 7.6933
	* 4.8534	* 4.2558	* 4.7713	* 4.0830	* 4.5395	* 4.5915	* 4.2240	* 7.2807
	* 4.3578	* 3.9258	* 4.3052	* 3.8083	* 4.1270	* 4.1670	* 3.9517	* 6.5464
	* 3.7215	* 3.4488	* 3.6876	* 3.3986	* 3.5924	* 3.6253	* 3.5330	* 5.5926
	* 3.1748	* 2.9993	* 3.1426	* 2.9823	* 3.1036	* 3.1288	* 3.1074	* 4.6519

10	* 4.3731	* 4.0082	* 4.4762	* 4.1479	* 3.2622	* 4.0940	* 3.5496	* 6.8864
	* 5.1239	* 4.6825	* 5.2343	* 4.7617	* 3.8077	* 4.6108	* 4.1458	* 7.6800
	* 5.4337	* 4.9657	* 5.5371	* 4.9742	* 4.0410	* 4.7606	* 4.3422	* 7.9122
	* 5.2110	* 4.7693	* 5.2839	* 4.7325	* 3.9809	* 4.4947	* 4.2170	* 7.4593
	* 4.6893	* 4.3035	* 4.7486	* 4.2811	* 3.7099	* 4.0664	* 3.9311	* 6.6989
	* 3.9979	* 3.6861	* 4.0529	* 3.7138	* 3.3348	* 3.5419	* 3.5250	* 5.7123
	* 3.3824	* 3.1414	* 3.4304	* 3.2007	* 2.9443	* 3.0630	* 3.1064	* 4.7649

11	* 4.0218	* 3.2380	* 4.1466	* 3.3798	* 4.2009	* 3.3769	* 3.8246	* 8.1963
	* 4.6539	* 3.8232	* 4.7599	* 3.9311	* 4.7338	* 3.9167	* 4.4083	* 9.0574
	* 4.9096	* 4.1111	* 4.9726	* 4.1661	* 4.8869	* 4.0988	* 4.5481	* 9.2454
	* 4.7231	* 4.0827	* 4.7315	* 4.0896	* 4.6149	* 3.9830	* 4.3336	* 8.6182
	* 4.2940	* 3.8080	* 4.2804	* 3.7977	* 4.1775	* 3.7153	* 3.9819	* 7.6675
	* 3.7230	* 3.3985	* 3.7132	* 3.3976	* 3.6363	* 3.3324	* 3.5554	* 6.4753
	* 3.2033	* 2.9822	* 3.2004	* 2.9847	* 3.1493	* 2.9489	* 3.1795	* 5.3580

12	* 3.1677	* 3.9001	* 3.2617	* 4.2004	* 4.3343	* 3.7172	* 5.5401	*
	* 3.7286	* 4.4908	* 3.8070	* 4.7333	* 4.8783	* 4.3110	* 6.1582	*
	* 4.0164	* 4.7232	* 4.0404	* 4.8864	* 5.0152	* 4.4647	* 6.3150	*
	* 4.0181	* 4.5396	* 3.9805	* 4.6146	* 4.6993	* 4.2673	* 5.9394	*
	* 3.7617	* 4.1272	* 3.7098	* 4.1774	* 4.2240	* 3.9341	* 5.3544	*
	* 3.3815	* 3.5926	* 3.3347	* 3.6363	* 3.6454	* 3.5254	* 4.6284	*
	* 2.9760	* 3.1038	* 2.9443	* 3.1493	* 3.1294	* 3.1136	* 3.9228	*

13	* 4.0251	* 4.0888	* 4.0933	* 3.3765	* 3.7170	* 5.3792	*10.9144	*
	* 4.6249	* 4.6342	* 4.6102	* 3.9162	* 4.3109	* 6.0175	*12.0242	*
	* 4.8316	* 4.8180	* 4.7600	* 4.0984	* 4.4645	* 6.1935	*12.1578	*
	* 4.6257	* 4.5909	* 4.4944	* 3.9828	* 4.2672	* 5.8287	*11.1308	*
	* 4.2042	* 4.1667	* 4.0662	* 3.7152	* 3.9341	* 5.2512	* 9.7257	*
	* 3.6566	* 3.6251	* 3.5418	* 3.3324	* 3.5254	* 4.5318	* 8.0278	*
	* 3.1484	* 3.1287	* 3.0630	* 2.9489	* 3.1137	* 3.8566	* 6.4593	*

14	* 3.4403	* 3.4575	* 3.5488	* 3.8238	* 5.5388	*10.9163	*	*
	* 4.0631	* 4.0759	* 4.1450	* 4.4074	* 6.1567	*12.0263	*	*
	* 4.3022	* 4.3080	* 4.3415	* 4.5473	* 6.3136	*12.1599	*	*
	* 4.2258	* 4.2238	* 4.2166	* 4.3332	* 5.9384	*11.1329	*	*
	* 3.9602	* 3.9516	* 3.9309	* 3.9817	* 5.3544	* 9.7277	*	*
	* 3.5383	* 3.5330	* 3.5249	* 3.5553	* 4.6285	* 8.0294	*	*
	* 3.1085	* 3.1074	* 3.1063	* 3.1795	* 3.9230	* 6.4604	*	*

15	* 6.6617	* 6.6399	* 6.8873	* 8.1941	* 4 EFPD	118 % POWER		
	* 7.4772	* 7.4370	* 7.6811	* 9.0550	* 50 EFPD	118 % POWER		
	* 7.7503	* 7.6934	* 7.9127	* 9.2435	* 100 EFPD	118 % POWER		
	* 7.3499	* 7.2809	* 7.4601	* 8.6169	* 175 EFPD	118 % POWER		
	* 6.6099	* 6.5468	* 6.6999	* 7.6654	* 250 EFPD	118 % POWER		
	* 5.6038	* 5.5936	* 5.7114	* 6.4738	* 350 EFPD	118 % POWER		
	* 4.6563	* 4.6526	* 4.7642	* 5.3568	* 465 EFPD	118 % POWER		

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 100% POWER, 4 EFPD

	H	G	F	E	D	C	B	A
8	1.3372	1.2300	1.2162	1.2307	1.4365	1.3762	1.4524	0.7057
	1.3483	1.4601	1.4647	1.4182	1.2195	1.2533	1.2277	2.2996
9	1.2300	1.4178	1.3950	1.4028	1.2865	1.3708	1.4429	0.7023
	1.4601	1.2780	1.2748	1.2649	1.3528	1.2624	1.2368	2.3237
10	1.2162	1.3953	1.1948	1.1694	1.3255	1.3334	1.4308	0.6683
	1.4647	1.2747	1.4815	1.5155	1.3579	1.3413	1.2514	2.5150
11	1.2307	1.4029	1.1702	1.3592	1.1305	1.2573	1.3125	0.5631
	1.4182	1.2649	1.5146	1.3136	1.5586	1.4168	1.3517	3.0050
12	1.4365	1.2865	1.3257	1.1306	1.2602	1.3633	0.8201	
	1.2195	1.3528	1.3577	1.5586	1.3730	1.2833	2.0522	
13	1.3762	1.3710	1.3337	1.2575	1.3634	0.9221	0.4325	
	1.2533	1.2622	1.3410	1.4167	1.2832	1.8000	3.7604	
14	1.4524	1.4430	1.4311	1.3128	0.8202	0.4324		
	1.2277	1.2367	1.2512	1.3514	2.0520	3.7614		
15	0.7057	0.7019	0.6695	0.5637	F-DEL-H			
	2.2996	2.3248	2.5103	3.0022	M-DEL-H			

AT 100% POWER, 50 EFPD

	H	G	F	E	D	C	B	A
8	1.3305	1.1781	1.1343	1.1978	1.4603	1.3352	1.4453	0.7075
	1.3743	1.5363	1.6012	1.4775	1.2295	1.3281	1.2323	2.3912
9	1.1781	1.3995	1.3200	1.4246	1.2601	1.3319	1.4361	0.7047
	1.5363	1.3207	1.3797	1.2721	1.4271	1.3349	1.2440	2.4107
10	1.1343	1.3204	1.1170	1.1470	1.3534	1.3163	1.4526	0.6740
	1.6012	1.3795	1.6005	1.5790	1.3545	1.3819	1.2537	2.5439
11	1.1978	1.4247	1.1476	1.3964	1.1311	1.3132	1.3609	0.5727
	1.4775	1.2721	1.5784	1.3148	1.5916	1.3917	1.3400	3.0632
12	1.4603	1.2602	1.3537	1.1312	1.2449	1.3842	0.8401	
	1.2295	1.4271	1.3543	1.5915	1.4179	1.3059	2.0927	
13	1.3352	1.3321	1.3166	1.3134	1.3843	0.9096	0.4338	
	1.3281	1.3347	1.3817	1.3915	1.3058	1.8761	3.8557	
14	1.4453	1.4363	1.4530	1.3613	0.8402	0.4337		
	1.2323	1.2439	1.2535	1.3397	2.0925	3.8567		
15	0.7075	0.7044	0.6752	0.5733	F-DEL-H			
	2.3912	2.4118	2.5393	3.0603	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 100% POWER, 100 EFPD

	H	G	F	E	D	C	B	A
8	1.3477	1.1411	1.0781	1.1679	1.4627	1.2968	1.4360	0.7091
	1.3517	1.5744	1.6740	1.5344	1.2231	1.3615	1.2343	2.3821
9	1.1411	1.3808	1.2636	1.4327	1.2340	1.3012	1.4337	0.7071
	1.5744	1.3338	1.4328	1.2604	1.4516	1.3651	1.2398	2.3995
10	1.0781	1.2639	1.0630	1.1330	1.4007	1.2983	1.4596	0.6794
	1.6740	1.4326	1.6956	1.5989	1.3050	1.3978	1.2479	2.5615
11	1.1679	1.4329	1.1335	1.4290	1.1398	1.3831	1.3942	0.5825
	1.5344	1.2603	1.5983	1.2843	1.5764	1.3248	1.3079	3.0113
12	1.4627	1.2340	1.4009	1.1399	1.2357	1.4045	0.8583	
	1.2231	1.4516	1.3049	1.5762	1.4507	1.2883	2.0506	
13	1.2968	1.3014	1.2985	1.3833	1.4046	0.9032	0.4406	
	1.3615	1.3649	1.3975	1.3246	1.2882	1.9269	3.8072	
14	1.4360	1.4338	1.4599	1.3945	0.8583	0.4404		
	1.2343	1.2397	1.2477	1.3076	2.0505	3.8082		
15	0.7091	0.7067	0.6806	0.5831	F-DEL-H			
	2.3821	2.4007	2.5571	3.0086	M-DEL-H			

AT 100% POWER, 175 EFPD

	H	G	F	E	D	C	B	A
8	1.3758	1.1141	1.0332	1.1367	1.4634	1.2558	1.4476	0.7154
	1.3008	1.5775	1.7136	1.5468	1.2242	1.3791	1.2213	2.3565
9	1.1141	1.3805	1.2153	1.4430	1.2032	1.2677	1.4490	0.7143
	1.5775	1.3104	1.4634	1.2509	1.4617	1.3764	1.2249	2.3692
10	1.0332	1.2156	1.0219	1.1224	1.4565	1.2834	1.4568	0.6887
	1.7136	1.4631	1.7312	1.6032	1.2579	1.4075	1.2320	2.4835
11	1.1367	1.4431	1.1227	1.4633	1.1472	1.4532	1.4146	0.5974
	1.5468	1.2509	1.6029	1.2552	1.5633	1.2619	1.2850	2.8960
12	1.4634	1.2031	1.4566	1.1473	1.2258	1.4222	0.8776	
	1.2242	1.4617	1.2578	1.5632	1.4404	1.2745	2.0077	
13	1.2558	1.2678	1.2837	1.4533	1.4222	0.9008	0.4554	
	1.3791	1.3762	1.4072	1.2618	1.2744	1.8980	3.6871	
14	1.4476	1.4492	1.4570	1.4148	0.8777	0.4553		
	1.2213	1.2249	1.2318	1.2848	2.0076	3.6881		
15	0.7154	0.7139	0.6895	0.5979	F-DEL-H			
	2.3565	2.3701	2.4807	2.8936	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 100% POWER, 250 EFPD

	H	G	F	E	D	C	B	A
8	1.3920	1.1054	1.0169	1.1175	1.4521	1.2296	1.4481	0.7264
	1.2648	1.5886	1.7283	1.5453	1.2173	1.3804	1.2222	2.2757
9	1.1054	1.3848	1.1927	1.4377	1.1810	1.2437	1.4513	0.7264
	1.5886	1.2843	1.4756	1.2393	1.4618	1.3762	1.2250	2.2858
10	1.0169	1.1930	1.0086	1.1168	1.4734	1.2703	1.4572	0.7004
	1.7283	1.4754	1.7332	1.5786	1.2141	1.3959	1.2331	2.3999
11	1.1175	1.4377	1.1171	1.4738	1.1451	1.4768	1.4277	0.6133
	1.5453	1.2393	1.5782	1.2105	1.5398	1.2253	1.2644	2.8104
12	1.4521	1.1809	1.4735	1.1452	1.2152	1.4336	0.8901	
	1.2173	1.4619	1.2140	1.5397	1.4249	1.2250	1.9413	
13	1.2296	1.2439	1.2704	1.4769	1.4336	0.9030	0.4738	
	1.3804	1.3761	1.3957	1.2252	1.2250	1.8891	3.5443	
14	1.4481	1.4514	1.4573	1.4278	0.8901	0.4737		
	1.2222	1.2250	1.2329	1.2643	1.9413	3.5453		
15	0.7264	0.7261	0.7012	0.6138	F-DEL-H			
	2.2757	2.2867	2.3972	2.8083	M-DEL-H			

AT 100% POWER, 350 EFPD

	H	G	F	E	D	C	B	A
8	1.3964	1.1038	1.0127	1.1012	1.4273	1.2063	1.4348	0.7454
	1.2621	1.5663	1.7191	1.5709	1.2159	1.4054	1.1935	2.2189
9	1.1038	1.3855	1.1797	1.4195	1.1590	1.2201	1.4378	0.7461
	1.5663	1.2865	1.4816	1.2346	1.4893	1.4005	1.1973	2.2257
10	1.0127	1.1800	1.0074	1.1069	1.4593	1.2491	1.4413	0.7186
	1.7191	1.4813	1.7235	1.5947	1.2214	1.4046	1.2086	2.3369
11	1.1012	1.4196	1.1071	1.4620	1.1336	1.4676	1.4232	0.6361
	1.5709	1.2346	1.5944	1.2168	1.5521	1.2115	1.2454	2.6665
12	1.4273	1.1590	1.4594	1.1336	1.2021	1.4273	0.9022	
	1.2159	1.4893	1.2213	1.5521	1.4365	1.2259	1.9137	
13	1.2063	1.2202	1.2492	1.4676	1.4273	0.9111	0.5022	
	1.4054	1.4004	1.4044	1.2115	1.2259	1.8314	3.2774	
14	1.4348	1.4378	1.4414	1.4233	0.9022	0.5020		
	1.1935	1.1973	1.2085	1.2453	1.9138	3.2784		
15	0.7454	0.7457	0.7194	0.6366	F-DEL-H			
	2.2189	2.2264	2.3343	2.6647	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 100% POWER, 465 EFPD

	H	G	F	E	D	C	B	A
8	1.3843	1.1031	1.0192	1.0895	1.3951	1.1848	1.4093	0.7681
	1.2522	1.5701	1.7124	1.5627	1.2253	1.4060	1.2183	2.1117
9	1.1031	1.3757	1.1732	1.3932	1.1410	1.1984	1.4111	0.7693
	1.5701	1.2767	1.4841	1.2410	1.4875	1.4003	1.2219	2.1168
10	1.0192	1.1735	1.0133	1.0957	1.4249	1.2234	1.4131	0.7410
	1.7124	1.4838	1.7066	1.5857	1.2307	1.4103	1.2323	2.2231
11	1.0895	1.3933	1.0959	1.4345	1.1189	1.4349	1.4000	0.6633
	1.5627	1.2410	1.5855	1.2201	1.5422	1.2382	1.2664	2.5145
12	1.3951	1.1409	1.4249	1.1189	1.1863	1.4064	0.9140	
	1.2253	1.4875	1.2306	1.5422	1.4249	1.2224	1.8484	
13	1.1848	1.1985	1.2234	1.4349	1.4064	0.9236	0.5376	
	1.4060	1.4003	1.4102	1.2382	1.2224	1.8045	3.0648	
14	1.4093	1.4112	1.4132	1.4000	0.9140	0.5375		
	1.2183	1.2219	1.2323	1.2664	1.8485	3.0657		
15	0.7681	0.7690	0.7420	0.6637	F-DEL-H			
	2.1117	2.1175	2.2201	2.5130	M-DEL-H			

AT 75% POWER, 4 EFPD

	H	G	F	E	D	C	B	A
8	1.2910	1.2205	1.2218	1.2494	1.4727	1.4218	1.5000	0.7182
	1.6685	1.7624	1.6959	1.6227	1.4132	1.4456	1.3917	2.6806
9	1.2205	1.4236	1.4137	1.4222	1.3131	1.4131	1.4879	0.7132
	1.7624	1.5556	1.4712	1.4815	1.5377	1.4293	1.4096	2.7099
10	1.2218	1.4140	1.2018	1.1755	1.3461	1.3617	1.4642	0.6755
	1.6959	1.4711	1.7246	1.7585	1.5574	1.5195	1.4413	2.8993
11	1.2494	1.4223	1.1764	1.3515	1.1113	1.2487	1.3200	0.5615
	1.6227	1.4814	1.7575	1.6075	1.8750	1.7428	1.6340	3.5385
12	1.4727	1.3131	1.3463	1.1114	1.1602	1.3059	0.7991	
	1.4132	1.5377	1.5571	1.8750	1.6420	1.5726	2.5210	
13	1.4218	1.4134	1.3620	1.2490	1.3059	0.8668	0.4088	
	1.4456	1.4291	1.5192	1.7427	1.5725	2.1981	4.6582	
14	1.5000	1.4881	1.4646	1.3204	0.7992	0.4087		
	1.3917	1.4095	1.4410	1.6335	2.5207	4.6595		
15	0.7182	0.7128	0.6768	0.5621	F-DEL-H			
	2.6806	2.7111	2.8939	3.5350	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 75% POWER, 50 EFPD

	H	G	F	E	D	C	B	A
8	1.2653	1.1440	1.1359	1.2136	1.4971	1.3780	1.4930	0.7209
	1.6587	1.8743	1.8547	1.6991	1.3896	1.4905	1.4010	2.7572
9	1.1440	1.3981	1.3306	1.4465	1.2820	1.3721	1.4800	0.7167
	1.8743	1.5852	1.5876	1.4538	1.6128	1.5023	1.4219	2.7891
10	1.1359	1.3309	1.1170	1.1519	1.3694	1.3446	1.4869	0.6824
	1.8547	1.5875	1.8982	1.8258	1.5654	1.5690	1.4308	2.9618
11	1.2136	1.4466	1.1525	1.3883	1.1155	1.3109	1.3719	0.5725
	1.6991	1.4537	1.8252	1.5729	1.9306	1.6970	1.5921	3.5850
12	1.4971	1.2820	1.3697	1.1157	1.1634	1.3370	0.8224	
	1.3896	1.6128	1.5651	1.9304	1.7082	1.5522	2.5426	
13	1.3780	1.3723	1.3449	1.3111	1.3371	0.8576	0.4116	
	1.4905	1.5021	1.5687	1.6967	1.5521	2.3067	4.6985	
14	1.4930	1.4802	1.4873	1.3722	0.8225	0.4115		
	1.4010	1.4217	1.4305	1.5916	2.5423	4.6997		
15	0.7209	0.7164	0.6837	0.5731	F-DEL-H			
	2.7572	2.7903	2.9563	3.5814	M-DEL-H			

AT 75% POWER, 100 EFPD

	H	G	F	E	D	C	B	A
8	1.2396	1.0954	1.0744	1.1820	1.4991	1.3378	1.4850	0.7236
	1.6327	1.9268	1.9552	1.7405	1.3916	1.5300	1.4329	2.7494
9	1.0954	1.3690	1.2684	1.4538	1.2546	1.3367	1.4805	0.7203
	1.9268	1.6119	1.6599	1.4528	1.6449	1.5417	1.4357	2.7761
10	1.0744	1.2687	1.0582	1.1375	1.4204	1.3270	1.4956	0.6891
	1.9552	1.6598	1.9955	1.8481	1.5193	1.5963	1.4450	2.9373
11	1.1820	1.4539	1.1380	1.4229	1.1295	1.3858	1.4098	0.5837
	1.7405	1.4527	1.8475	1.5376	1.9135	1.6097	1.5759	3.5236
12	1.4991	1.2546	1.4207	1.1297	1.1664	1.3606	0.8432	
	1.3916	1.6449	1.5190	1.9133	1.7231	1.5624	2.4919	
13	1.3378	1.3369	1.3273	1.3860	1.3607	0.8526	0.4189	
	1.5300	1.5415	1.5959	1.6095	1.5623	2.3280	4.7457	
14	1.4850	1.4806	1.4959	1.4102	0.8433	0.4188		
	1.4329	1.4355	1.4447	1.5756	2.4917	4.7469		
15	0.7236	0.7199	0.6903	0.5843	F-DEL-H			
	2.7494	2.7771	2.9323	3.5203	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 75% POWER, 175 EFPD

	H	G	F	E	D	C	B	A
8	1.2232	1.0576	1.0316	1.1505	1.4997	1.2964	1.5005	0.7319
	1.5932	1.9682	2.0290	1.7823	1.3798	1.5683	1.3835	2.7105
9	1.0576	1.3510	1.2172	1.4662	1.2234	1.3038	1.4982	0.7304
	1.9682	1.6044	1.7254	1.4264	1.6786	1.5714	1.3888	2.7293
10	1.0316	1.2176	1.0168	1.1265	1.4704	1.3054	1.4977	0.7004
	2.0290	1.7252	2.0610	1.8633	1.4547	1.6033	1.4170	2.8790
11	1.1505	1.4663	1.1269	1.4587	1.1386	1.4581	1.4341	0.6001
	1.7823	1.4263	1.8628	1.4989	1.8933	1.5286	1.5257	3.4103
12	1.4997	1.2233	1.4706	1.1387	1.1622	1.3808	0.8643	
	1.3798	1.6786	1.4546	1.8931	1.7320	1.5119	2.4299	
13	1.2964	1.3040	1.3057	1.4582	1.3808	0.8485	0.4331	
	1.5683	1.5712	1.6030	1.5284	1.5119	2.3318	4.5990	
14	1.5005	1.4983	1.4979	1.4343	0.8643	0.4330		
	1.3835	1.3887	1.4168	1.5254	2.4298	4.6002		
15	0.7319	0.7301	0.7012	0.6006	F-DEL-H			
	2.7105	2.7302	2.8756	3.4073	M-DEL-H			

AT 75% POWER, 250 EFPD

	H	G	F	E	D	C	B	A
8	1.2144	1.0388	1.0163	1.1331	1.4888	1.2733	1.5073	0.7465
	1.5742	1.9868	2.0330	1.8134	1.3901	1.5955	1.3734	2.6661
9	1.0388	1.3437	1.1942	1.4644	1.2033	1.2826	1.5057	0.7461
	1.9868	1.5990	1.7641	1.4285	1.7066	1.5939	1.3771	2.6763
10	1.0163	1.1945	1.0032	1.1202	1.4901	1.2940	1.5032	0.7149
	2.0330	1.7639	2.0892	1.8729	1.4349	1.6187	1.3975	2.8196
11	1.1331	1.4645	1.1205	1.4697	1.1362	1.4845	1.4479	0.6177
	1.8134	1.4285	1.8725	1.4823	1.8868	1.4686	1.4979	3.3024
12	1.4888	1.2032	1.4902	1.1363	1.1454	1.3856	0.8763	
	1.3901	1.7066	1.4348	1.8867	1.7394	1.4916	2.3858	
13	1.2733	1.2827	1.2942	1.4846	1.3856	0.8437	0.4488	
	1.5955	1.5938	1.6185	1.4685	1.4916	2.3219	4.3240	
14	1.5073	1.5057	1.5034	1.4481	0.8763	0.4486		
	1.3734	1.3770	1.3973	1.4977	2.3857	4.3252		
15	0.7465	0.7457	0.7157	0.6182	F-DEL-H			
	2.6661	2.6772	2.8163	3.2998	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 75% POWER, 350 EFPD

	H	G	F	E	D	C	B	A
8	1.2004	1.0266	1.0144	1.1209	1.4693	1.2559	1.5032	0.7713
	1.5712	1.9461	2.0398	1.8073	1.3920	1.5882	1.3816	2.5451
9	1.0266	1.3391	1.1831	1.4507	1.1856	1.2637	1.5011	0.7715
	1.9461	1.5671	1.7517	1.4240	1.7049	1.5870	1.3836	2.5481
10	1.0144	1.1834	1.0035	1.1122	1.4775	1.2748	1.4932	0.7376
	2.0398	1.7514	2.0534	1.8541	1.4439	1.6129	1.4030	2.6821
11	1.1209	1.4507	1.1125	1.4568	1.1228	1.4768	1.4452	0.6428
	1.8073	1.4240	1.8537	1.4878	1.8555	1.4700	1.4872	3.0974
12	1.4693	1.1856	1.4775	1.1228	1.1159	1.3664	0.8862	
	1.3920	1.7049	1.4439	1.8554	1.7129	1.4906	2.2906	
13	1.2559	1.2638	1.2749	1.4769	1.3664	0.8395	0.4722	
	1.5882	1.5869	1.6128	1.4699	1.4906	2.2378	4.0797	
14	1.5032	1.5011	1.4933	1.4453	0.8861	0.4721		
	1.3816	1.3836	1.4029	1.4871	2.2906	4.0809		
15	0.7713	0.7712	0.7384	0.6433	F-DEL-H			
	2.5451	2.5490	2.6791	3.0952	M-DEL-H			

AT 75% POWER, 465 EFPD

	H	G	F	E	D	C	B	A
8	1.1750	1.0203	1.0229	1.1155	1.4446	1.2425	1.4873	0.8014
	1.5423	1.9465	2.0392	1.8303	1.4214	1.6176	1.3775	2.4767
9	1.0203	1.3310	1.1811	1.4306	1.1739	1.2482	1.4844	0.8020
	1.9465	1.5738	1.7657	1.4486	1.7330	1.6145	1.3778	2.4759
10	1.0229	1.1814	1.0126	1.1053	1.4438	1.2511	1.4709	0.7656
	2.0392	1.7654	2.0480	1.8722	1.4449	1.6356	1.4025	2.6024
11	1.1155	1.4306	1.1055	1.4286	1.1052	1.4432	1.4228	0.6729
	1.8303	1.4486	1.8719	1.4790	1.8736	1.4649	1.4744	2.9600
12	1.4446	1.1738	1.4439	1.1052	1.0792	1.3270	0.8943	
	1.4214	1.7331	1.4448	1.8736	1.7284	1.4752	2.2551	
13	1.2425	1.2482	1.2512	1.4432	1.3270	0.8354	0.5009	
	1.6176	1.6144	1.6355	1.4649	1.4752	2.2066	3.8261	
14	1.4873	1.4844	1.4710	1.4229	0.8943	0.5008		
	1.3775	1.3777	1.4024	1.4743	2.2551	3.8271		
15	0.8014	0.8017	0.7667	0.6733	F-DEL-H			
	2.4767	2.4768	2.5989	2.9581	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 50% POWER, 4 EFPD

	H	G	F	E	D	C	B	A
8	1.2328	1.2068	1.2299	1.2704	1.5168	1.4762	1.5575	0.7356
	1.4768	1.7408	1.6595	1.5787	1.3486	1.3564	1.3253	2.6258
9	1.2068	1.4276	1.4318	1.4456	1.3460	1.4636	1.5426	0.7287
	1.7408	1.5086	1.4340	1.4282	1.4862	1.3711	1.3448	2.6642
10	1.2299	1.4320	1.2076	1.1815	1.3700	1.3953	1.5040	0.6863
	1.6595	1.4340	1.6916	1.7272	1.5303	1.4735	1.3973	2.8636
11	1.2704	1.4457	1.1824	1.3453	1.0899	1.2558	1.3319	0.5617
	1.5787	1.4282	1.7268	1.5634	1.8268	1.6976	1.6139	3.5487
12	1.5168	1.3460	1.3703	1.0900	1.0905	1.2375	0.7758	
	1.3486	1.4861	1.5301	1.8269	1.5801	1.5024	2.4649	
13	1.4762	1.4639	1.3956	1.2562	1.2376	0.8011	0.3830	
	1.3564	1.3709	1.4731	1.6975	1.5023	2.1320	4.5428	
14	1.5575	1.5427	1.5044	1.3323	0.7759	0.3829		
	1.3253	1.3447	1.3970	1.6135	2.4646	4.5440		
15	0.7356	0.7284	0.6876	0.5623	F-DEL-H			
	2.6258	2.6652	2.8582	3.5451	M-DEL-H			

AT 50% POWER, 50 EFPD

	H	G	F	E	D	C	B	A
8	1.1967	1.1207	1.1355	1.2304	1.5390	1.4285	1.5497	0.7388
	1.6613	1.8296	1.8664	1.7307	1.4005	1.4819	1.4006	2.7403
9	1.1207	1.3922	1.3390	1.4694	1.3064	1.4193	1.5318	0.7331
	1.8296	1.5948	1.6223	1.4822	1.6319	1.4984	1.4255	2.7771
10	1.1355	1.3394	1.1147	1.1566	1.3871	1.3773	1.5295	0.6942
	1.8664	1.6222	1.9057	1.8382	1.6044	1.5882	1.4495	2.9751
11	1.2304	1.4695	1.1572	1.3766	1.1013	1.3183	1.3844	0.5742
	1.7307	1.4821	1.8375	1.5616	1.8664	1.6661	1.5974	3.6576
12	1.5390	1.3064	1.3874	1.1015	1.1021	1.2787	0.8036	
	1.4005	1.6319	1.6041	1.8662	1.6667	1.5271	2.4584	
13	1.4285	1.4195	1.3777	1.3186	1.2788	0.7993	0.3884	
	1.4819	1.4982	1.5878	1.6658	1.5270	2.2135	4.6448	
14	1.5497	1.5320	1.5299	1.3848	0.8037	0.3883		
	1.4006	1.4254	1.4491	1.5970	2.4581	4.6459		
15	0.7388	0.7328	0.6956	0.5748	F-DEL-H			
	2.7403	2.7779	2.9696	3.6539	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 50% POWER, 100 EFPD

	H	G	F	E	D	C	B	A
8	1.1560	1.0572	1.0727	1.1994	1.5431	1.3888	1.5464	0.7442
	1.6328	1.9315	1.9558	1.7234	1.3543	1.4774	1.3624	2.7117
9	1.0572	1.3554	1.2726	1.4775	1.2791	1.3823	1.5387	0.7401
	1.9315	1.6134	1.6557	1.4302	1.6219	1.4909	1.3726	2.7397
10	1.0727	1.2729	1.0519	1.1426	1.4429	1.3616	1.5398	0.7034
	1.9558	1.6555	1.9954	1.8442	1.4942	1.5551	1.3961	2.9223
11	1.1994	1.4776	1.1432	1.4117	1.1168	1.3963	1.4269	0.5872
	1.7234	1.4301	1.8435	1.5219	1.8852	1.5734	1.5517	3.5577
12	1.5431	1.2791	1.4432	1.1169	1.1028	1.3044	0.8259	
	1.3543	1.6218	1.4939	1.8850	1.6798	1.5045	2.4627	
13	1.3888	1.3826	1.3619	1.3966	1.3045	0.7922	0.3953	
	1.4774	1.4907	1.5547	1.5732	1.5044	2.2443	4.6143	
14	1.5464	1.5389	1.5402	1.4272	0.8260	0.3952		
	1.3624	1.3725	1.3958	1.5514	2.4624	4.6154		
15	0.7442	0.7398	0.7046	0.5878	F-DEL-H			
	2.7117	2.7406	2.9172	3.5542	M-DEL-H			

AT 50% POWER, 175 EFPD

	H	G	F	E	D	C	B	A
8	1.1010	0.9990	1.0377	1.1793	1.5609	1.3574	1.5610	0.7571
	1.5955	1.9383	1.9906	1.7585	1.3431	1.5132	1.3349	2.6563
9	0.9990	1.3284	1.2250	1.5060	1.2607	1.3602	1.5730	0.7572
	1.9383	1.6107	1.6920	1.4031	1.6476	1.5229	1.3410	2.6795
10	1.0377	1.2253	1.0135	1.1380	1.5042	1.3503	1.5589	0.7234
	1.9906	1.6918	2.0197	1.8469	1.4249	1.5575	1.3704	2.8493
11	1.1793	1.5061	1.1384	1.4478	1.1246	1.4723	1.4588	0.6093
	1.7585	1.4030	1.8463	1.4760	1.8573	1.4750	1.4847	3.3781
12	1.5609	1.2607	1.5045	1.1247	1.0679	1.3017	0.8433	
	1.3431	1.6476	1.4247	1.8571	1.6802	1.4696	2.3873	
13	1.3574	1.3605	1.3505	1.4725	1.3018	0.7612	0.4022	
	1.5132	1.5227	1.5572	1.4748	1.4696	2.2291	4.4384	
14	1.5610	1.5731	1.5592	1.4591	0.8433	0.4021		
	1.3349	1.3409	1.3701	1.4844	2.3871	4.4396		
15	0.7571	0.7568	0.7242	0.6099	F-DEL-H			
	2.6563	2.6803	2.8457	3.3751	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 50% POWER, 250 EFPD

	H	G	F	E	D	C	B	A
8	1.0748	0.9745	1.0220	1.1653	1.5532	1.3233	1.5302	0.7598
	1.5565	1.9534	2.0186	1.7517	1.3505	1.5026	1.3210	2.5461
9	0.9745	1.3142	1.1996	1.5097	1.2446	1.3400	1.5783	0.7681
	1.9534	1.5781	1.7201	1.4043	1.6404	1.5078	1.3252	2.5598
10	1.0220	1.2000	0.9958	1.1345	1.5262	1.3369	1.5727	0.7401
	2.0186	1.7199	2.0337	1.8189	1.3848	1.5434	1.3514	2.7157
11	1.1653	1.5098	1.1349	1.4623	1.1285	1.5099	1.4807	0.6319
	1.7517	1.4043	1.8185	1.4577	1.8083	1.3816	1.4039	3.1763
12	1.5532	1.2445	1.5263	1.1286	1.0494	1.3025	0.8611	
	1.3505	1.6404	1.3847	1.8082	1.6481	1.4471	2.2857	
13	1.3233	1.3402	1.3370	1.5101	1.3026	0.7549	0.4189	
	1.5026	1.5076	1.5431	1.3814	1.4471	2.2076	4.2550	
14	1.5302	1.5784	1.5729	1.4809	0.8611	0.4188		
	1.3210	1.3251	1.3512	1.4036	2.2856	4.2561		
15	0.7598	0.7676	0.7409	0.6324	F-DEL-H			
	2.5461	2.5606	2.7125	3.1737	M-DEL-H			

AT 50% POWER, 350 EFPD

	H	G	F	E	D	C	B	A
8	1.0504	0.9646	1.0198	1.1557	1.5336	1.2869	1.4659	0.7694
	1.4275	1.9543	2.0266	1.7676	1.3388	1.5154	1.2939	2.4568
9	0.9646	1.3019	1.1856	1.4991	1.2293	1.3182	1.5692	0.7882
	1.9543	1.5694	1.7361	1.3873	1.6570	1.5173	1.2961	2.4653
10	1.0198	1.1860	0.9860	1.1288	1.5216	1.3228	1.5681	0.7631
	2.0266	1.7358	2.0264	1.8181	1.3547	1.5226	1.3250	2.6110
11	1.1557	1.4991	1.1291	1.4554	1.1276	1.5166	1.4926	0.6629
	1.7676	1.3872	1.8177	1.4227	1.7890	1.3329	1.3557	2.9432
12	1.5336	1.2292	1.5216	1.1276	1.0254	1.3028	0.8810	
	1.3388	1.6571	1.3546	1.7889	1.5661	1.4089	2.2262	
13	1.2869	1.3183	1.3229	1.5167	1.3028	0.7557	0.4463	
	1.5154	1.5172	1.5224	1.3328	1.4089	2.1730	4.0093	
14	1.4659	1.5693	1.5682	1.4927	0.8810	0.4461		
	1.2939	1.2960	1.3249	1.3555	2.2261	4.0103		
15	0.7694	0.7877	0.7640	0.6634	F-DEL-H			
	2.4568	2.4660	2.6080	2.9410	M-DEL-H			

TABLE A-3 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - NORMAL OPERATION

AT 50% POWER, 465 EFPD

	H	G	F	E	D	C	B	A
8	1.0159	0.9625	1.0292	1.1545	1.5133	1.2521	1.4032	0.7792
	1.3367	1.9362	2.0209	1.7912	1.3689	1.5432	1.3093	2.3876
9	0.9625	1.2855	1.1817	1.4832	1.2215	1.2995	1.5442	0.8122
	1.9362	1.5069	1.7454	1.4107	1.6849	1.5435	1.3100	2.3913
10	1.0292	1.1820	0.9806	1.1246	1.5015	1.3094	1.5507	0.7916
	2.0209	1.7446	2.0262	1.8357	1.3696	1.5359	1.3380	2.5262
11	1.1545	1.4832	1.1248	1.4318	1.1228	1.4990	1.4870	0.7012
	1.7912	1.4107	1.8354	1.4406	1.7895	1.3324	1.3485	2.7893
12	1.5133	1.2215	1.5015	1.1228	0.9933	1.2888	0.9016	
	1.3689	1.6849	1.3696	1.7895	1.5080	1.4193	2.1565	
13	1.2521	1.2996	1.3095	1.4990	1.2888	0.7576	0.4809	
	1.5432	1.5434	1.5358	1.3324	1.4193	2.1464	3.7693	
14	1.4032	1.5442	1.5508	1.4870	0.9015	0.4808		
	1.3093	1.3100	1.3379	1.3484	2.1565	3.7703		
15	0.7792	0.8117	0.7927	0.7016	F-DEL-H			
	2.3876	2.3920	2.5228	2.7874	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

* JOB/DATE PJPW/27May2021 CREATED BY SMARG12 COMPILED 13Mar2020 COLR FILE
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TABLE A-4

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data representing power escalation values at Level 24.

AT 100% POWER, 4 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data representing power escalation values at Level 23.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4057	* 1.3457	* 1.3234	* 1.3435	* 1.4776	* 1.4455	* 1.4538	* 0.8025
	* 1.4285	* 1.5006	* 1.5239	* 1.4603	* 1.3159	* 1.3413	* 1.3237	* 2.1762
9	* 1.3457	* 1.4689	* 1.4783	* 1.4559	* 1.3959	* 1.4344	* 1.4464	* 0.7937
	* 1.5006	* 1.3879	* 1.3568	* 1.3507	* 1.4030	* 1.3562	* 1.3353	* 2.2016
10	* 1.3234	* 1.4782	* 1.3077	* 1.2900	* 1.3915	* 1.3885	* 1.4191	* 0.7549
	* 1.5239	* 1.3568	* 1.5435	* 1.5569	* 1.4355	* 1.4326	* 1.3888	* 2.3364
11	* 1.3435	* 1.4560	* 1.2902	* 1.4233	* 1.2464	* 1.3088	* 1.3188	* 0.6396
	* 1.4603	* 1.3506	* 1.5565	* 1.4097	* 1.5971	* 1.5239	* 1.5094	* 2.8486
12	* 1.4776	* 1.3959	* 1.3917	* 1.2465	* 1.3272	* 1.3707	* 0.9116	
	* 1.3159	* 1.4030	* 1.4354	* 1.5971	* 1.4517	* 1.4068	* 1.9704	
13	* 1.4455	* 1.4345	* 1.3887	* 1.3089	* 1.3708	* 1.0065	* 0.5049	
	* 1.3413	* 1.3561	* 1.4324	* 1.5237	* 1.4068	* 1.7504	* 3.4542	
14	* 1.4538	* 1.4465	* 1.4193	* 1.3190	* 0.9117	* 0.5048		
	* 1.3237	* 1.3353	* 1.3886	* 1.5092	* 1.9699	* 3.4549		
15	* 0.8025	* 0.7935	* 0.7561	* 0.6401	* F-SUB-Q			
	* 2.1762	* 2.2014	* 2.3343	* 2.8476	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5326	* 1.4539	* 1.4376	* 1.4386	* 1.6052	* 1.5679	* 1.6047	* 0.8390
	* 1.3433	* 1.4274	* 1.4251	* 1.3843	* 1.2267	* 1.2535	* 1.2152	* 2.1107
9	* 1.4539	* 1.6045	* 1.6136	* 1.5839	* 1.4948	* 1.5591	* 1.5968	* 0.8304
	* 1.4274	* 1.2945	* 1.2619	* 1.2589	* 1.3243	* 1.2638	* 1.2257	* 2.1384
10	* 1.4376	* 1.6136	* 1.4205	* 1.3837	* 1.5049	* 1.5086	* 1.5653	* 0.7871
	* 1.4251	* 1.2620	* 1.4416	* 1.4727	* 1.3408	* 1.3325	* 1.2759	* 2.2713
11	* 1.4386	* 1.5839	* 1.3843	* 1.5493	* 1.3254	* 1.4139	* 1.4430	* 0.6686
	* 1.3843	* 1.2589	* 1.4721	* 1.3218	* 1.5171	* 1.4246	* 1.4036	* 2.7617
12	* 1.6052	* 1.4949	* 1.5050	* 1.3255	* 1.4491	* 1.5149	* 0.9530	
	* 1.2267	* 1.3242	* 1.3406	* 1.5171	* 1.3583	* 1.3004	* 1.9201	
13	* 1.5679	* 1.5593	* 1.5089	* 1.4141	* 1.5150	* 1.0804	* 0.5301	
	* 1.2535	* 1.2637	* 1.3322	* 1.4246	* 1.3003	* 1.6688	* 3.3584	
14	* 1.6047	* 1.5968	* 1.5656	* 1.4433	* 0.9531	* 0.5300		
	* 1.2152	* 1.2256	* 1.2757	* 1.4034	* 1.9196	* 3.3591		
15	* 0.8390	* 0.8301	* 0.7886	* 0.6692	* F-SUB-Q			
	* 2.1107	* 2.1385	* 2.2687	* 2.7604	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 20 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5914	* 1.4952	* 1.4786	* 1.4786	* 1.6709	* 1.6160	* 1.6767	* 0.8591
	* 1.3227	* 1.4171	* 1.4086	* 1.3694	* 1.1973	* 1.2301	* 1.1807	* 2.0945
9	* 1.4952	* 1.6722	* 1.6680	* 1.6472	* 1.5366	* 1.6078	* 1.6682	* 0.8511
	* 1.4171	* 1.2671	* 1.2401	* 1.2335	* 1.3088	* 1.2398	* 1.1909	* 2.1193
10	* 1.4786	* 1.6680	* 1.4595	* 1.4187	* 1.5584	* 1.5603	* 1.6373	* 0.8077
	* 1.4086	* 1.2402	* 1.4256	* 1.4588	* 1.3147	* 1.3070	* 1.2370	* 2.2470
11	* 1.4786	* 1.6472	* 1.4193	* 1.6037	* 1.3571	* 1.4653	* 1.5079	* 0.6860
	* 1.3694	* 1.2335	* 1.4582	* 1.3016	* 1.5103	* 1.3978	* 1.3675	* 2.7297
12	* 1.6709	* 1.5367	* 1.5586	* 1.3572	* 1.4976	* 1.5824	* 0.9837	
	* 1.1973	* 1.3087	* 1.3146	* 1.5103	* 1.3424	* 1.2711	* 1.8984	
13	* 1.6160	* 1.6079	* 1.5606	* 1.4655	* 1.5824	* 1.1162	* 0.5415	
	* 1.2301	* 1.2397	* 1.3067	* 1.3977	* 1.2710	* 1.6513	* 3.3622	
14	* 1.6767	* 1.6683	* 1.6376	* 1.5082	* 0.9838	* 0.5413		
	* 1.1807	* 1.1908	* 1.2368	* 1.3673	* 1.8979	* 3.3628		
15	* 0.8591	* 0.8507	* 0.8093	* 0.6866	* F-SUB-Q			
	* 2.0945	* 2.1195	* 2.2443	* 2.7284	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 19 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6166	* 1.5116	* 1.4949	* 1.4960	* 1.7016	* 1.6412	* 1.7124	* 0.8716
	* 1.3277	* 1.4266	* 1.4186	* 1.3795	* 1.1977	* 1.2312	* 1.1768	* 2.1027
9	* 1.5116	* 1.7017	* 1.6916	* 1.6752	* 1.5556	* 1.6347	* 1.7036	* 0.8639
	* 1.4266	* 1.2614	* 1.2446	* 1.2370	* 1.3172	* 1.2409	* 1.1867	* 2.1255
10	* 1.4949	* 1.6916	* 1.4734	* 1.4325	* 1.5821	* 1.5864	* 1.6750	* 0.8220
	* 1.4186	* 1.2446	* 1.4373	* 1.4694	* 1.3169	* 1.3058	* 1.2283	* 2.2456
11	* 1.4960	* 1.6752	* 1.4332	* 1.6263	* 1.3713	* 1.4899	* 1.5423	* 0.6978
	* 1.3795	* 1.2370	* 1.4688	* 1.3043	* 1.5221	* 1.3997	* 1.3551	* 2.7181
12	* 1.7016	* 1.5556	* 1.5823	* 1.3714	* 1.5204	* 1.6156	* 1.0038	
	* 1.1977	* 1.3171	* 1.3167	* 1.5221	* 1.3497	* 1.2711	* 1.8949	
13	* 1.6412	* 1.6348	* 1.5867	* 1.4901	* 1.6156	* 1.1364	* 0.5479	
	* 1.2312	* 1.2408	* 1.3056	* 1.3997	* 1.2710	* 1.6595	* 3.3972	
14	* 1.7124	* 1.7037	* 1.6753	* 1.5427	* 1.0039	* 0.5478		
	* 1.1768	* 1.1866	* 1.2281	* 1.3548	* 1.8944	* 3.3979		
15	* 0.8716	* 0.8636	* 0.8236	* 0.6984	* F-SUB-Q			
	* 2.1027	* 2.1255	* 2.2429	* 2.7169	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6468	* 1.5298	* 1.5133	* 1.5157	* 1.7359	* 1.6728	* 1.7542	* 0.8766
	* 1.3182	* 1.4226	* 1.4290	* 1.3913	* 1.1995	* 1.2333	* 1.1728	* 2.1353
9	* 1.5298	* 1.7330	* 1.7185	* 1.7060	* 1.5777	* 1.6660	* 1.7453	* 0.8696
	* 1.4226	* 1.2534	* 1.2492	* 1.2391	* 1.3260	* 1.2424	* 1.1821	* 2.1553
10	* 1.5133	* 1.7186	* 1.4901	* 1.4486	* 1.6138	* 1.6172	* 1.7174	* 0.8260
	* 1.4290	* 1.2493	* 1.4484	* 1.4812	* 1.3146	* 1.3031	* 1.2188	* 2.2772
11	* 1.5157	* 1.7061	* 1.4494	* 1.6559	* 1.3889	* 1.5213	* 1.5807	* 0.7006
	* 1.3913	* 1.2391	* 1.4804	* 1.2977	* 1.5313	* 1.3965	* 1.3355	* 2.7403
12	* 1.7359	* 1.5778	* 1.6140	* 1.3889	* 1.5477	* 1.6530	* 1.0109	
	* 1.1995	* 1.3259	* 1.3144	* 1.5313	* 1.3519	* 1.2664	* 1.9171	
13	* 1.6728	* 1.6662	* 1.6176	* 1.5215	* 1.6531	* 1.1453	* 0.5473	
	* 1.2333	* 1.2423	* 1.3028	* 1.3964	* 1.2664	* 1.6793	* 3.4683	
14	* 1.7542	* 1.7454	* 1.7177	* 1.5811	* 1.0109	* 0.5472		
	* 1.1728	* 1.1820	* 1.2185	* 1.3351	* 1.9166	* 3.4690		
15	* 0.8766	* 0.8692	* 0.8276	* 0.7012	* F-SUB-Q			
	* 2.1353	* 2.1556	* 2.2743	* 2.7390	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6591	* 1.5362	* 1.5202	* 1.5240	* 1.7534	* 1.6906	* 1.7777	* 0.8791
	* 1.3340	* 1.4457	* 1.4522	* 1.4181	* 1.2171	* 1.2500	* 1.1854	* 2.1810
9	* 1.5362	* 1.7468	* 1.7310	* 1.7201	* 1.5882	* 1.6837	* 1.7686	* 0.8726
	* 1.4457	* 1.2693	* 1.2672	* 1.2580	* 1.3492	* 1.2582	* 1.1941	* 2.1981
10	* 1.5202	* 1.7311	* 1.4958	* 1.4546	* 1.6290	* 1.6347	* 1.7421	* 0.8289
	* 1.4522	* 1.2672	* 1.4710	* 1.5052	* 1.3281	* 1.3135	* 1.2249	* 2.3173
11	* 1.5240	* 1.7202	* 1.4554	* 1.6686	* 1.3964	* 1.5366	* 1.6024	* 0.7025
	* 1.4181	* 1.2580	* 1.5044	* 1.3102	* 1.5464	* 1.4027	* 1.3401	* 2.7705
12	* 1.7534	* 1.5883	* 1.6292	* 1.3964	* 1.5622	* 1.6735	* 1.0160	
	* 1.2171	* 1.3491	* 1.3280	* 1.5464	* 1.3630	* 1.2725	* 1.9340	
13	* 1.6906	* 1.6839	* 1.6350	* 1.5368	* 1.6736	* 1.1510	* 0.5465	
	* 1.2500	* 1.2581	* 1.3133	* 1.4026	* 1.2724	* 1.7035	* 3.5301	
14	* 1.7777	* 1.7687	* 1.7425	* 1.6028	* 1.0160	* 0.5463		
	* 1.1854	* 1.1940	* 1.2246	* 1.3398	* 1.9335	* 3.5308		
15	* 0.8791	* 0.8722	* 0.8306	* 0.7032	* F-SUB-Q			
	* 2.1810	* 2.1985	* 2.3143	* 2.7691	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6730	* 1.5426	* 1.5273	* 1.5320	* 1.7720	* 1.7081	* 1.8019	* 0.8791 *
	* 1.3626	* 1.4736	* 1.4804	* 1.4504	* 1.2385	* 1.2717	* 1.2020	* 2.2411 *
9	* 1.5426	* 1.7616	* 1.7442	* 1.7354	* 1.5989	* 1.7011	* 1.7927	* 0.8731 *
	* 1.4736	* 1.2842	* 1.2886	* 1.2802	* 1.3772	* 1.2788	* 1.2099	* 2.2554 *
10	* 1.5273	* 1.7444	* 1.5019	* 1.4604	* 1.6461	* 1.6517	* 1.7668	* 0.8287 *
	* 1.4804	* 1.2885	* 1.4996	* 1.5345	* 1.3439	* 1.3278	* 1.2348	* 2.3741 *
11	* 1.5320	* 1.7355	* 1.4614	* 1.6836	* 1.4039	* 1.5534	* 1.6238	* 0.7015 *
	* 1.4504	* 1.2802	* 1.5336	* 1.3296	* 1.5791	* 1.4223	* 1.3490	* 2.8255 *
12	* 1.7720	* 1.5990	* 1.6463	* 1.4039	* 1.5769	* 1.6945	* 1.0153	*
	* 1.2385	* 1.3772	* 1.3437	* 1.5791	* 1.3880	* 1.2892	* 1.9825	*
13	* 1.7081	* 1.7013	* 1.6521	* 1.5536	* 1.6946	* 1.1528	* 0.5439	*
	* 1.2717	* 1.2787	* 1.3275	* 1.4222	* 1.2892	* 1.7448	* 3.6302	*
14	* 1.8019	* 1.7929	* 1.7672	* 1.6242	* 1.0154	* 0.5437	*	*
	* 1.2020	* 1.2098	* 1.2346	* 1.3487	* 1.9819	* 3.6310	*	*
15	* 0.8791	* 0.8727	* 0.8303	* 0.7022	* F-SUB-Q			
	* 2.2411	* 2.2558	* 2.3710	* 2.8240	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6482	* 1.5248	* 1.5104	* 1.5161	* 1.7538	* 1.6960	* 1.7853	* 0.8800 *
	* 1.4180	* 1.5303	* 1.5410	* 1.5123	* 1.2914	* 1.3210	* 1.2511	* 2.3078 *
9	* 1.5248	* 1.7402	* 1.7263	* 1.7147	* 1.5834	* 1.6888	* 1.7762	* 0.8743 *
	* 1.5303	* 1.3361	* 1.3397	* 1.3385	* 1.4342	* 1.3276	* 1.2586	* 2.3198 *
10	* 1.5104	* 1.7266	* 1.4847	* 1.4453	* 1.6251	* 1.6399	* 1.7530	* 0.8344 *
	* 1.5410	* 1.3396	* 1.5617	* 1.5957	* 1.3985	* 1.3728	* 1.2774	* 2.4230 *
11	* 1.5161	* 1.7149	* 1.4463	* 1.6602	* 1.3895	* 1.5340	* 1.6096	* 0.7067 *
	* 1.5123	* 1.3384	* 1.5947	* 1.3797	* 1.6426	* 1.4789	* 1.3913	* 2.8727 *
12	* 1.7538	* 1.5835	* 1.6253	* 1.3895	* 1.5635	* 1.6787	* 1.0229	*
	* 1.2914	* 1.4341	* 1.3983	* 1.6427	* 1.4466	* 1.3438	* 2.0209	*
13	* 1.6960	* 1.6890	* 1.6403	* 1.5342	* 1.6788	* 1.1567	* 0.5459	*
	* 1.3210	* 1.3274	* 1.3725	* 1.4787	* 1.3438	* 1.7962	* 3.7292	*
14	* 1.7853	* 1.7763	* 1.7534	* 1.6100	* 1.0230	* 0.5458	*	*
	* 1.2511	* 1.2585	* 1.2771	* 1.3910	* 2.0204	* 3.7299	*	*
15	* 0.8800	* 0.8738	* 0.8360	* 0.7074	* F-SUB-Q			
	* 2.3078	* 2.3202	* 2.4201	* 2.8713	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6706	1.5345	1.5207	1.5274	1.7791	1.7185	1.8187	0.8740
	1.4450	1.5726	1.5829	1.5550	1.3185	1.3496	1.2711	2.4026
9	1.5345	1.7617	1.7448	1.7368	1.5978	1.7113	1.8096	0.8691
	1.5726	1.3650	1.3710	1.3649	1.4714	1.3553	1.2779	2.4115
10	1.5207	1.7451	1.4941	1.4532	1.6509	1.6623	1.7859	0.8259
	1.5829	1.3708	1.6043	1.6397	1.4202	1.3958	1.2926	2.5247
11	1.5274	1.7370	1.4542	1.6837	1.3999	1.5587	1.6383	0.6976
	1.5550	1.3648	1.6385	1.4038	1.6758	1.4974	1.4068	2.9958
12	1.7791	1.5979	1.6511	1.3999	1.5831	1.7074	1.0130	
	1.3185	1.4713	1.4200	1.6758	1.4679	1.3565	2.0932	
13	1.7185	1.7115	1.6626	1.5589	1.7075	1.1507	0.5378	
	1.3496	1.3551	1.3955	1.4972	1.3564	1.8564	3.8760	
14	1.8187	1.8097	1.7863	1.6387	1.0131	0.5377		
	1.2711	1.2778	1.2924	1.4065	2.0926	3.8768		
15	0.8740	0.8686	0.8276	0.6984	F-SUB-Q			
	2.4026	2.4120	2.5213	2.9942	M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6657	1.5271	1.5141	1.5218	1.7787	1.7194	1.8228	0.8696
	1.4478	1.5755	1.5868	1.5732	1.3477	1.3964	1.3160	2.5033
9	1.5271	1.7578	1.7410	1.7336	1.5936	1.7121	1.8136	0.8650
	1.5755	1.3685	1.3809	1.3821	1.5045	1.4032	1.3225	2.5098
10	1.5141	1.7415	1.4870	1.4465	1.6494	1.6636	1.7913	0.8226
	1.5868	1.3805	1.6150	1.6587	1.4567	1.4429	1.3330	2.6224
11	1.5218	1.7338	1.4476	1.6800	1.3949	1.5578	1.6418	0.6942
	1.5732	1.3821	1.6575	1.4333	1.7360	1.5459	1.4502	3.1047
12	1.7787	1.5936	1.6496	1.3948	1.5825	1.7099	1.0099	
	1.3477	1.5045	1.4565	1.7358	1.5145	1.3979	2.1666	
13	1.7194	1.7124	1.6640	1.5581	1.7100	1.1470	0.5335	
	1.3964	1.4029	1.4426	1.5458	1.3978	1.9201	4.0231	
14	1.8228	1.8138	1.7917	1.6422	1.0100	0.5334		
	1.3160	1.3224	1.3327	1.4498	2.1661	4.0240		
15	0.8696	0.8645	0.8243	0.6949	F-SUB-Q			
	2.5033	2.5105	2.6189	3.1031	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 12 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6365	* 1.5042	* 1.4921	* 1.5005	* 1.7546	* 1.7013	* 1.8009	* 0.8653
	* 1.4370	* 1.5594	* 1.5695	* 1.5553	* 1.3320	* 1.3760	* 1.2988	* 2.4638
9	* 1.5042	* 1.7308	* 1.7174	* 1.7075	* 1.5725	* 1.6940	* 1.7919	* 0.8612
	* 1.5594	* 1.3552	* 1.3648	* 1.3695	* 1.4863	* 1.3829	* 1.3063	* 2.4731
10	* 1.4921	* 1.7179	* 1.4648	* 1.4262	* 1.6238	* 1.6465	* 1.7720	* 0.8228
	* 1.5695	* 1.3644	* 1.5979	* 1.6396	* 1.4429	* 1.4273	* 1.3253	* 2.5789
11	* 1.5005	* 1.7078	* 1.4273	* 1.6526	* 1.3758	* 1.5343	* 1.6227	* 0.6947
	* 1.5553	* 1.3694	* 1.6384	* 1.4215	* 1.7179	* 1.5359	* 1.4506	* 3.0705
12	* 1.7546	* 1.5725	* 1.6241	* 1.3757	* 1.5639	* 1.6890	* 1.0103	
	* 1.3320	* 1.4863	* 1.4427	* 1.7177	* 1.5282	* 1.4120	* 2.1516	
13	* 1.7013	* 1.6942	* 1.6469	* 1.5345	* 1.6891	* 1.1439	* 0.5320	
	* 1.3760	* 1.3827	* 1.4270	* 1.5357	* 1.4119	* 1.9260	* 4.0527	
14	* 1.8009	* 1.7920	* 1.7724	* 1.6231	* 1.0103	* 0.5318		
	* 1.2988	* 1.3061	* 1.3251	* 1.4502	* 2.1511	* 4.0536		
15	* 0.8653	* 0.8607	* 0.8244	* 0.6954	* F-SUB-Q			
	* 2.4638	* 2.4737	* 2.5757	* 3.0689	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 11 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6474	* 1.5040	* 1.4927	* 1.5018	* 1.7677	* 1.7129	* 1.8228	* 0.8544
	* 1.3935	* 1.5215	* 1.5303	* 1.5159	* 1.2913	* 1.3359	* 1.2540	* 2.4277
9	* 1.5040	* 1.7403	* 1.7243	* 1.7198	* 1.5764	* 1.7056	* 1.8138	* 0.8509
	* 1.5215	* 1.3154	* 1.3270	* 1.3253	* 1.4474	* 1.3423	* 1.2610	* 2.4347
10	* 1.4927	* 1.7248	* 1.4646	* 1.4248	* 1.6384	* 1.6586	* 1.7939	* 0.8100
	* 1.5303	* 1.3266	* 1.5582	* 1.5994	* 1.3956	* 1.3840	* 1.2789	* 2.5474
11	* 1.5018	* 1.7198	* 1.4260	* 1.6639	* 1.3772	* 1.5486	* 1.6415	* 0.6821
	* 1.5159	* 1.3252	* 1.5981	* 1.3761	* 1.6739	* 1.4840	* 1.3991	* 3.0369
12	* 1.7677	* 1.5764	* 1.6387	* 1.3772	* 1.5736	* 1.7070	* 0.9946	
	* 1.2913	* 1.4473	* 1.3954	* 1.6737	* 1.4818	* 1.3627	* 2.1263	
13	* 1.7129	* 1.7059	* 1.6590	* 1.5489	* 1.7071	* 1.1313	* 0.5211	
	* 1.3359	* 1.3421	* 1.3837	* 1.4837	* 1.3626	* 1.8982	* 4.0096	
14	* 1.8228	* 1.8140	* 1.7943	* 1.6419	* 0.9947	* 0.5210		
	* 1.2540	* 1.2609	* 1.2786	* 1.3988	* 2.1257	* 4.0105		
15	* 0.8544	* 0.8504	* 0.8116	* 0.6828	* F-SUB-Q			
	* 2.4277	* 2.4354	* 2.5440	* 3.0353	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6384	* 1.4917	* 1.4812	* 1.4911	* 1.7615	* 1.7085	* 1.8227	* 0.8447
	* 1.3426	* 1.4695	* 1.4773	* 1.4629	* 1.2428	* 1.2856	* 1.2035	* 2.3542
9	* 1.4917	* 1.7311	* 1.7150	* 1.7129	* 1.5667	* 1.7012	* 1.8138	* 0.8417
	* 1.4695	* 1.2670	* 1.2788	* 1.2752	* 1.3963	* 1.2915	* 1.2101	* 2.3595
10	* 1.4812	* 1.7156	* 1.4526	* 1.4130	* 1.6326	* 1.6551	* 1.7952	* 0.8009
	* 1.4773	* 1.2784	* 1.5049	* 1.5447	* 1.3425	* 1.3302	* 1.2257	* 2.4688
11	* 1.4911	* 1.7130	* 1.4142	* 1.6558	* 1.3677	* 1.5439	* 1.6416	* 0.6738
	* 1.4629	* 1.2751	* 1.5434	* 1.3240	* 1.6144	* 1.4253	* 1.3405	* 2.9440
12	* 1.7615	* 1.5668	* 1.6329	* 1.3676	* 1.5686	* 1.7053	* 0.9840	
	* 1.2428	* 1.3963	* 1.3423	* 1.6142	* 1.4275	* 1.3079	* 2.0559	
13	* 1.7085	* 1.7016	* 1.6555	* 1.5442	* 1.7054	* 1.1208	* 0.5131	
	* 1.2856	* 1.2912	* 1.3299	* 1.4250	* 1.3078	* 1.8332	* 3.8936	
14	* 1.8227	* 1.8140	* 1.7956	* 1.6421	* 0.9841	* 0.5130		
	* 1.2035	* 1.2099	* 1.2254	* 1.3401	* 2.0554	* 3.8945		
15	* 0.8447	* 0.8412	* 0.8026	* 0.6746	* F-SUB-Q			
	* 2.3542	* 2.3603	* 2.4654	* 2.9424	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6194	* 1.4730	* 1.4634	* 1.4737	* 1.7456	* 1.6948	* 1.8098	* 0.8360
	* 1.3059	* 1.4308	* 1.4378	* 1.4237	* 1.2060	* 1.2462	* 1.1655	* 2.2888
9	* 1.4730	* 1.7128	* 1.6973	* 1.6950	* 1.5497	* 1.6874	* 1.8010	* 0.8334
	* 1.4308	* 1.2310	* 1.2423	* 1.2393	* 1.3575	* 1.2519	* 1.1717	* 2.2927
10	* 1.4634	* 1.6980	* 1.4346	* 1.3959	* 1.6165	* 1.6422	* 1.7839	* 0.7944
	* 1.4378	* 1.2419	* 1.4654	* 1.5035	* 1.3036	* 1.2884	* 1.1851	* 2.3939
11	* 1.4737	* 1.6951	* 1.3972	* 1.6378	* 1.3520	* 1.5321	* 1.6303	* 0.6678
	* 1.4237	* 1.2393	* 1.5022	* 1.2863	* 1.5694	* 1.3800	* 1.2965	* 2.8557
12	* 1.7456	* 1.5497	* 1.6168	* 1.3520	* 1.5562	* 1.6926	* 0.9767	
	* 1.2060	* 1.3575	* 1.3034	* 1.5692	* 1.3818	* 1.2640	* 1.9885	
13	* 1.6948	* 1.6877	* 1.6426	* 1.5324	* 1.6927	* 1.1113	* 0.5075	
	* 1.2462	* 1.2516	* 1.2881	* 1.3797	* 1.2639	* 1.7734	* 3.7787	
14	* 1.8098	* 1.8012	* 1.7843	* 1.6307	* 0.9767	* 0.5073		
	* 1.1655	* 1.1716	* 1.1849	* 1.2962	* 1.9880	* 3.7796		
15	* 0.8360	* 0.8328	* 0.7960	* 0.6685	* F-SUB-Q			
	* 2.2888	* 2.2934	* 2.3907	* 2.8541	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5859	* 1.4461	* 1.4372	* 1.4480	* 1.7152	* 1.6692	* 1.7798	* 0.8286
	* 1.3887	* 1.5183	* 1.5256	* 1.5104	* 1.2791	* 1.3183	* 1.2347	* 2.4082
9	* 1.4461	* 1.6807	* 1.6681	* 1.6617	* 1.5233	* 1.6618	* 1.7714	* 0.8261
	* 1.5183	* 1.3068	* 1.3172	* 1.3177	* 1.4394	* 1.3243	* 1.2412	* 2.4115
10	* 1.4372	* 1.6688	* 1.4083	* 1.3717	* 1.5852	* 1.6177	* 1.7566	* 0.7908
	* 1.5256	* 1.3166	* 1.5556	* 1.5944	* 1.3850	* 1.3618	* 1.2530	* 2.5067
11	* 1.4480	* 1.6618	* 1.3730	* 1.6077	* 1.3287	* 1.5063	* 1.6044	* 0.6654
	* 1.5104	* 1.3176	* 1.5930	* 1.3667	* 1.6616	* 1.4608	* 1.3706	* 2.9851
12	* 1.7152	* 1.5233	* 1.5855	* 1.3287	* 1.5328	* 1.6649	* 0.9733	
	* 1.2791	* 1.4394	* 1.3848	* 1.6616	* 1.4571	* 1.3343	* 2.0752	
13	* 1.6692	* 1.6621	* 1.6181	* 1.5066	* 1.6650	* 1.1039	* 0.5040	
	* 1.3183	* 1.3240	* 1.3615	* 1.4604	* 1.3342	* 1.8537	* 3.9560	
14	* 1.7798	* 1.7716	* 1.7570	* 1.6048	* 0.9733	* 0.5039		
	* 1.2347	* 1.2410	* 1.2527	* 1.3703	* 2.0747	* 3.9570		
15	* 0.8286	* 0.8256	* 0.7923	* 0.6661	* F-SUB-Q			
	* 2.4082	* 2.4123	* 2.5035	* 2.9835	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5932	* 1.4421	* 1.4339	* 1.4450	* 1.7229	* 1.6739	* 1.7951	* 0.8135
	* 1.3302	* 1.4681	* 1.4758	* 1.4625	* 1.2303	* 1.2710	* 1.1834	* 2.3752
9	* 1.4421	* 1.6860	* 1.6703	* 1.6718	* 1.5220	* 1.6666	* 1.7868	* 0.8116
	* 1.4681	* 1.2558	* 1.2696	* 1.2651	* 1.3924	* 1.2764	* 1.1891	* 2.3763
10	* 1.4339	* 1.6710	* 1.4046	* 1.3665	* 1.5952	* 1.6230	* 1.7713	* 0.7738
	* 1.4758	* 1.2691	* 1.5059	* 1.5453	* 1.3293	* 1.3106	* 1.1992	* 2.4787
11	* 1.4450	* 1.6718	* 1.3679	* 1.6135	* 1.3262	* 1.5180	* 1.6166	* 0.6489
	* 1.4625	* 1.2651	* 1.5438	* 1.3113	* 1.6019	* 1.3978	* 1.3115	* 2.9595
12	* 1.7229	* 1.5221	* 1.5955	* 1.3261	* 1.5388	* 1.6770	* 0.9517	
	* 1.2303	* 1.3923	* 1.3290	* 1.6020	* 1.3914	* 1.2722	* 2.0443	
13	* 1.6739	* 1.6669	* 1.6233	* 1.5184	* 1.6771	* 1.0860	* 0.4910	
	* 1.2710	* 1.2761	* 1.3103	* 1.3975	* 1.2721	* 1.8095	* 3.9161	
14	* 1.7951	* 1.7870	* 1.7717	* 1.6170	* 0.9518	* 0.4908		
	* 1.1834	* 1.1890	* 1.1989	* 1.3112	* 2.0439	* 3.9170		
15	* 0.8135	* 0.8110	* 0.7756	* 0.6496	* F-SUB-Q			
	* 2.3752	* 2.3772	* 2.4747	* 2.9577	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5735	1.4232	1.4158	1.4268	1.7043	1.6577	1.7785	0.8011
	1.2934	1.4303	1.4375	1.4253	1.1964	1.2344	1.1487	2.3233
9	1.4232	1.6658	1.6521	1.6529	1.5044	1.6506	1.7706	0.7995
	1.4303	1.2219	1.2344	1.2310	1.3553	1.2394	1.1540	2.3232
10	1.4158	1.6529	1.3868	1.3490	1.5782	1.6075	1.7554	0.7626
	1.4375	1.2339	1.4673	1.5060	1.2924	1.2720	1.1629	2.4212
11	1.4268	1.6530	1.3503	1.5953	1.3103	1.5026	1.6004	0.6387
	1.4253	1.2310	1.5045	1.2749	1.5561	1.3571	1.2728	2.8939
12	1.7043	1.5044	1.5785	1.3102	1.5248	1.6611	0.9380	
	1.1964	1.3553	1.2921	1.5561	1.3432	1.2306	1.9926	
13	1.6577	1.6509	1.6079	1.5030	1.6612	1.0721	0.4828	
	1.2344	1.2392	1.2718	1.3567	1.2305	1.7567	3.8262	
14	1.7785	1.7708	1.7558	1.6009	0.9380	0.4827		
	1.1487	1.1539	1.1626	1.2725	1.9922	3.8272		
15	0.8011	0.7989	0.7644	0.6394	F-SUB-Q			
	2.3233	2.3241	2.4172	2.8922	M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5205	1.3864	1.3796	1.3902	1.6530	1.6161	1.7222	0.7908
	1.2941	1.4202	1.4273	1.4155	1.1933	1.2246	1.1473	2.2794
9	1.3864	1.6133	1.6084	1.5985	1.4671	1.6091	1.7146	0.7889
	1.4202	1.2202	1.2264	1.2317	1.3446	1.2295	1.1524	2.2799
10	1.3796	1.6092	1.3520	1.3164	1.5290	1.5670	1.7010	0.7566
	1.4273	1.2258	1.4563	1.4933	1.2904	1.2614	1.1598	2.3627
11	1.3902	1.5986	1.3177	1.5482	1.2792	1.4541	1.5488	0.6347
	1.4155	1.2316	1.4918	1.2717	1.5397	1.3554	1.2708	2.8189
12	1.6530	1.4671	1.5293	1.2792	1.4864	1.6105	0.9316	
	1.1933	1.3446	1.2902	1.5398	1.3285	1.2244	1.9392	
13	1.6161	1.6094	1.5673	1.4545	1.6106	1.0610	0.4800	
	1.2246	1.2292	1.2612	1.3550	1.2243	1.7131	3.7222	
14	1.7222	1.7148	1.7015	1.5492	0.9316	0.4798		
	1.1473	1.1523	1.1595	1.2705	1.9388	3.7232		
15	0.7908	0.7884	0.7582	0.6354	F-SUB-Q			
	2.2794	2.2807	2.3596	2.8172	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5029	1.3688	1.3608	1.3739	1.6285	1.5975	1.6984	0.7705
	1.2741	1.4000	1.4086	1.3944	1.1786	1.2051	1.1318	2.2795
9	1.3688	1.5854	1.5882	1.5802	1.4520	1.5912	1.6912	0.7686
	1.4000	1.2083	1.2086	1.2126	1.3221	1.2093	1.1365	2.2799
10	1.3608	1.5890	1.3343	1.2996	1.5152	1.5517	1.6773	0.7341
	1.4086	1.2080	1.4365	1.4727	1.2671	1.2388	1.1436	2.3723
11	1.3739	1.5803	1.3010	1.5311	1.2686	1.4362	1.5264	0.6132
	1.3944	1.2125	1.4712	1.2504	1.5097	1.3345	1.2537	2.8417
12	1.6285	1.4520	1.5155	1.2686	1.4708	1.5898	0.9030	
	1.1786	1.3221	1.2669	1.5098	1.3041	1.2049	1.9462	
13	1.5975	1.5916	1.5520	1.4365	1.5899	1.0324	0.4645	
	1.2051	1.2091	1.2385	1.3342	1.2049	1.7114	3.7451	
14	1.6984	1.6914	1.6777	1.5268	0.9030	0.4643		
	1.1318	1.1363	1.1433	1.2534	1.9458	3.7461		
15	0.7705	0.7681	0.7356	0.6139	F-SUB-Q			
	2.2795	2.2807	2.3690	2.8398	M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4436	1.3174	1.2891	1.3233	1.5543	1.5177	1.6042	0.7474
	1.2983	1.4229	1.4560	1.4172	1.2076	1.2411	1.1724	2.3033
9	1.3174	1.5106	1.5057	1.5100	1.3947	1.5112	1.5967	0.7455
	1.4229	1.2411	1.2475	1.2421	1.3455	1.2458	1.1777	2.3039
10	1.2891	1.5064	1.2622	1.2539	1.4457	1.4798	1.5878	0.7097
	1.4560	1.2469	1.4871	1.4949	1.2998	1.2708	1.1817	2.4053
11	1.3233	1.5101	1.2548	1.4751	1.2275	1.3858	1.4575	0.5891
	1.4172	1.2420	1.4940	1.2705	1.5264	1.3531	1.2844	2.8997
12	1.5543	1.3947	1.4459	1.2276	1.4024	1.5086	0.8780	
	1.2076	1.3456	1.2996	1.5263	1.3380	1.2418	1.9599	
13	1.5177	1.5115	1.4801	1.3860	1.5086	0.9834	0.4428	
	1.2411	1.2455	1.2706	1.3529	1.2418	1.7587	3.8523	
14	1.6042	1.5969	1.5882	1.4578	0.8780	0.4427		
	1.1724	1.1776	1.1814	1.2841	1.9595	3.8533		
15	0.7474	0.7450	0.7110	0.5898	F-SUB-Q			
	2.3033	2.3048	2.4022	2.8979	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 100% POWER, 4 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4734	* 1.1474	* 1.0698	* 1.1434	* 1.5314	* 1.2708	* 1.4827	* 0.6559
	* 1.2508	* 1.6079	* 1.7276	* 1.6145	* 1.2056	* 1.4583	* 1.2468	* 2.5884
9	* 1.1474	* 1.4814	* 1.2756	* 1.5021	* 1.2146	* 1.2640	* 1.4752	* 0.6586
	* 1.6079	* 1.2448	* 1.4490	* 1.2281	* 1.5209	* 1.4658	* 1.2530	* 2.5721
10	* 1.0698	* 1.2763	* 1.0433	* 1.0974	* 1.4588	* 1.2457	* 1.4410	* 0.6232
	* 1.7276	* 1.4482	* 1.7717	* 1.6810	* 1.2655	* 1.4854	* 1.2814	* 2.7010
11	* 1.1434	* 1.5023	* 1.0981	* 1.4662	* 1.0811	* 1.4110	* 1.3188	* 0.5126
	* 1.6145	* 1.2280	* 1.6800	* 1.2573	* 1.7061	* 1.3069	* 1.3972	* 3.2884
12	* 1.5314	* 1.2145	* 1.4590	* 1.0812	* 1.1873	* 1.3557	* 0.7892	*
	* 1.2056	* 1.5210	* 1.2652	* 1.7059	* 1.5553	* 1.3595	* 2.1488	*
13	* 1.2708	* 1.2643	* 1.2459	* 1.4112	* 1.3558	* 0.8400	* 0.3763	*
	* 1.4583	* 1.4655	* 1.4852	* 1.3067	* 1.3595	* 2.0288	* 4.4746	*
14	* 1.4827	* 1.4754	* 1.4413	* 1.3191	* 0.7892	* 0.3762	*	*
	* 1.2468	* 1.2528	* 1.2811	* 1.3969	* 2.1484	* 4.4756	*	*
15	* 0.6559	* 0.6582	* 0.6239	* 0.5131	* F-SUB-Q			
	* 2.5884	* 2.5727	* 2.6999	* 3.2866	* M-SUB-Q			

AT 100% POWER, 4 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.5903	* 0.5021	* 0.4684	* 0.5087	* 0.6039	* 0.5086	* 0.5414	* 0.2794
	* 3.0917	* 3.6396	* 3.9076	* 3.5953	* 3.0277	* 3.6006	* 3.3838	* 6.0300
9	* 0.5021	* 0.5825	* 0.5112	* 0.5883	* 0.5248	* 0.5009	* 0.5383	* 0.2794
	* 3.6396	* 3.1362	* 3.5786	* 3.1063	* 3.4859	* 3.6595	* 3.4028	* 6.0151
10	* 0.4684	* 0.5114	* 0.4572	* 0.4918	* 0.5800	* 0.4977	* 0.5225	* 0.2673
	* 3.9076	* 3.5770	* 4.0037	* 3.7153	* 3.1499	* 3.6753	* 3.5022	* 6.2494
11	* 0.5087	* 0.5884	* 0.4919	* 0.5614	* 0.4845	* 0.5520	* 0.4818	* 0.2244
	* 3.5953	* 3.1058	* 3.7140	* 3.2532	* 3.7731	* 3.3109	* 3.7927	* 7.4574
12	* 0.6039	* 0.5248	* 0.5801	* 0.4845	* 0.4687	* 0.4958	* 0.3339	*
	* 3.0277	* 3.4859	* 3.1492	* 3.7726	* 3.9018	* 3.6851	* 5.0383	*
13	* 0.5086	* 0.5010	* 0.4978	* 0.5520	* 0.4959	* 0.3456	* 0.1678	*
	* 3.6006	* 3.6589	* 3.6747	* 3.3105	* 3.6849	* 4.8884	* 9.9659	*
14	* 0.5414	* 0.5383	* 0.5227	* 0.4819	* 0.3339	* 0.1677	*	*
	* 3.3838	* 3.4025	* 3.5015	* 3.7919	* 5.0372	* 9.9676	*	*
15	* 0.2794	* 0.2794	* 0.2675	* 0.2246	* F-SUB-Q			
	* 6.0300	* 6.0152	* 6.2497	* 7.4550	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.5689	* 0.5668	* 0.5581	* 0.5976	* 0.6889	* 0.5931	* 0.5948	* 0.3257
	* 3.5547	* 4.1245	* 4.0678	* 3.6688	* 3.1633	* 3.6721	* 3.6896	* 6.1076
9	* 0.5668	* 0.6638	* 0.5960	* 0.6779	* 0.6148	* 0.5791	* 0.5905	* 0.3242
	* 4.1245	* 3.6075	* 3.8085	* 3.2649	* 3.5611	* 3.7786	* 3.7357	* 6.1410
10	* 0.5581	* 0.5961	* 0.5477	* 0.5774	* 0.6618	* 0.5712	* 0.5661	* 0.3061
	* 4.0678	* 3.8078	* 4.2507	* 3.8940	* 3.4181	* 3.9432	* 3.9250	* 6.4846
11	* 0.5976	* 0.6780	* 0.5775	* 0.6311	* 0.5566	* 0.6041	* 0.5253	* 0.2595
	* 3.6688	* 3.2647	* 3.8933	* 3.7873	* 4.2937	* 3.9368	* 4.4092	* 7.8942
12	* 0.6889	* 0.6148	* 0.6618	* 0.5567	* 0.4954	* 0.5118	* 0.3687	*
	* 3.1633	* 3.5609	* 3.4176	* 4.2933	* 4.4169	* 4.3349	* 5.8090	*
13	* 0.5931	* 0.5791	* 0.5713	* 0.6042	* 0.5118	* 0.3644	* 0.1962	*
	* 3.6721	* 3.7784	* 3.9427	* 3.9364	* 4.3348	* 5.4581	* 10.4955	*
14	* 0.5948	* 0.5906	* 0.5663	* 0.5255	* 0.3687	* 0.1962	*	*
	* 3.6896	* 3.7354	* 3.9242	* 4.4082	* 5.8074	* 10.4971	*	*
15	* 0.3257	* 0.3242	* 0.3065	* 0.2597	* F-SUB-Q			
	* 6.1076	* 6.1398	* 6.4808	* 7.8918	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5062	* 1.2641	* 1.2118	* 1.2812	* 1.6211	* 1.3773	* 1.5066	* 0.7543
	* 1.5578	* 1.9274	* 1.9237	* 1.7619	* 1.3853	* 1.6266	* 1.4970	* 2.7165
9	* 1.2641	* 1.5792	* 1.3974	* 1.6031	* 1.3477	* 1.3525	* 1.4969	* 0.7518
	* 1.9274	* 1.5336	* 1.6646	* 1.4168	* 1.6721	* 1.6632	* 1.5009	* 2.7094
10	* 1.2118	* 1.3975	* 1.1934	* 1.2345	* 1.5559	* 1.3276	* 1.4452	* 0.7063
	* 1.9237	* 1.6645	* 1.9884	* 1.8786	* 1.4928	* 1.7455	* 1.5801	* 2.8855
11	* 1.2812	* 1.6032	* 1.2347	* 1.5456	* 1.1928	* 1.4485	* 1.3262	* 0.5898
	* 1.7619	* 1.4167	* 1.8782	* 1.5791	* 2.0491	* 1.6796	* 1.8091	* 3.5743
12	* 1.6211	* 1.3478	* 1.5561	* 1.1929	* 1.2037	* 1.3441	* 0.8657	*
	* 1.3853	* 1.6720	* 1.4926	* 2.0490	* 1.8975	* 1.7339	* 2.5355	*
13	* 1.3773	* 1.3526	* 1.3278	* 1.4487	* 1.3441	* 0.9122	* 0.4459	*
	* 1.6266	* 1.6631	* 1.7452	* 1.6795	* 1.7339	* 2.3111	* 4.7535	*
14	* 1.5066	* 1.4970	* 1.4455	* 1.3264	* 0.8658	* 0.4458	*	*
	* 1.4970	* 1.5008	* 1.5798	* 1.8087	* 2.5348	* 4.7544	*	*
15	* 0.7543	* 0.7517	* 0.7072	* 0.5903	* F-SUB-Q			
	* 2.7165	* 2.7091	* 2.8840	* 3.5729	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.5455	* 1.4797	* 1.4552	* 1.4825	* 1.6492	* 1.6209	* 1.6351	* 0.8756
	* 1.6285	* 1.7124	* 1.6356	* 1.5528	* 1.3828	* 1.4047	* 1.3852	* 2.3459
9	* 1.4797	* 1.6255	* 1.6413	* 1.6117	* 1.5476	* 1.6069	* 1.6260	* 0.8655
	* 1.7124	* 1.5206	* 1.4445	* 1.4315	* 1.4836	* 1.4223	* 1.3976	* 2.3730
10	* 1.4552	* 1.6413	* 1.4371	* 1.4155	* 1.5341	* 1.5517	* 1.5923	* 0.8216
	* 1.6356	* 1.4446	* 1.6638	* 1.6725	* 1.5278	* 1.5063	* 1.4572	* 2.5222
11	* 1.4825	* 1.6118	* 1.4159	* 1.5701	* 1.3662	* 1.4429	* 1.4647	* 0.6908
	* 1.5528	* 1.4314	* 1.6720	* 1.5672	* 1.8156	* 1.7264	* 1.6540	* 3.1130
12	* 1.6492	* 1.5477	* 1.5343	* 1.3663	* 1.4688	* 1.5199	* 0.9918	
	* 1.3828	* 1.4835	* 1.5276	* 1.8155	* 1.6318	* 1.5804	* 2.2584	
13	* 1.6209	* 1.6071	* 1.5519	* 1.4431	* 1.5200	* 1.1003	* 0.5379	
	* 1.4047	* 1.4222	* 1.5060	* 1.7262	* 1.5804	* 1.9932	* 4.0348	
14	* 1.6351	* 1.6261	* 1.5926	* 1.4651	* 0.9919	* 0.5378		
	* 1.3852	* 1.3975	* 1.4570	* 1.6536	* 2.2578	* 4.0356		
15	* 0.8756	* 0.8653	* 0.8230	* 0.6915	* F-SUB-Q			
	* 2.3459	* 2.3727	* 2.5198	* 3.1117	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6751	* 1.5903	* 1.5732	* 1.5786	* 1.7845	* 1.7493	* 1.7954	* 0.9111
	* 1.5464	* 1.6423	* 1.5461	* 1.4890	* 1.3017	* 1.3215	* 1.2817	* 2.2891
9	* 1.5903	* 1.7661	* 1.7824	* 1.7437	* 1.6535	* 1.7390	* 1.7857	* 0.9013
	* 1.6423	* 1.4230	* 1.3578	* 1.3504	* 1.4123	* 1.3333	* 1.2941	* 2.3221
10	* 1.5732	* 1.7824	* 1.5536	* 1.5096	* 1.6617	* 1.6819	* 1.7470	* 0.8530
	* 1.5461	* 1.3579	* 1.5680	* 1.6026	* 1.4391	* 1.4174	* 1.3544	* 2.4764
11	* 1.5786	* 1.7438	* 1.5102	* 1.6940	* 1.4447	* 1.5502	* 1.5945	* 0.7193
	* 1.4890	* 1.3503	* 1.6019	* 1.4714	* 1.7400	* 1.6256	* 1.5535	* 3.0555
12	* 1.7845	* 1.6536	* 1.6619	* 1.4448	* 1.5973	* 1.6708	* 1.0319	
	* 1.3017	* 1.4122	* 1.4389	* 1.7400	* 1.5401	* 1.4740	* 2.2199	
13	* 1.7493	* 1.7391	* 1.6823	* 1.5504	* 1.6709	* 1.1760	* 0.5629	
	* 1.3215	* 1.3332	* 1.4171	* 1.6255	* 1.4740	* 1.9157	* 3.9507	
14	* 1.7954	* 1.7858	* 1.7474	* 1.5948	* 1.0320	* 0.5628		
	* 1.2817	* 1.2940	* 1.3541	* 1.5531	* 2.2193	* 3.9515		
15	* 0.9111	* 0.9009	* 0.8546	* 0.7200	* F-SUB-Q			
	* 2.2891	* 2.3222	* 2.4734	* 3.0539	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7254	1.6225	1.6052	1.6097	1.8424	1.7937	1.8610	0.9268
	1.5420	1.6479	1.5488	1.4910	1.2883	1.3161	1.2646	2.3029
9	1.6225	1.8249	1.8273	1.7988	1.6861	1.7850	1.8506	0.9176
	1.6479	1.4085	1.3535	1.3399	1.4144	1.3295	1.2774	2.3342
10	1.6052	1.8272	1.5838	1.5358	1.7072	1.7255	1.8130	0.8697
	1.5488	1.3535	1.5743	1.6099	1.4305	1.4105	1.3335	2.4863
11	1.6097	1.7988	1.5365	1.7396	1.4692	1.5941	1.6535	0.7334
	1.4910	1.3399	1.6091	1.4679	1.7538	1.6144	1.5277	3.0563
12	1.8424	1.6862	1.7074	1.4692	1.6377	1.7318	1.0579	
	1.2883	1.4143	1.4303	1.7538	1.5412	1.4590	2.2201	
13	1.7937	1.7852	1.7259	1.5944	1.7319	1.2064	0.5716	
	1.3161	1.3293	1.4102	1.6143	1.4589	1.9178	3.9969	
14	1.8610	1.8508	1.8134	1.6540	1.0580	0.5714		
	1.2646	1.2773	1.3332	1.5272	2.2195	3.9977		
15	0.9268	0.9172	0.8714	0.7341	F-SUB-Q			
	2.3029	2.3342	2.4832	3.0547	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7363	1.6247	1.6076	1.6132	1.8579	1.8064	1.8824	0.9327
	1.5707	1.6855	1.5842	1.5237	1.3056	1.3324	1.2753	2.3364
9	1.6247	1.8389	1.8350	1.8117	1.6903	1.7974	1.8719	0.9241
	1.6855	1.4307	1.3793	1.3634	1.4428	1.3460	1.2879	2.3636
10	1.6076	1.8350	1.5837	1.5360	1.7169	1.7378	1.8370	0.8781
	1.5842	1.3794	1.6102	1.6465	1.4564	1.4322	1.3446	2.5134
11	1.6132	1.8117	1.5369	1.7478	1.4715	1.6064	1.6762	0.7404
	1.5237	1.3633	1.6456	1.4984	1.7941	1.6403	1.5450	3.1029
12	1.8579	1.6904	1.7172	1.4715	1.6474	1.7517	1.0708	
	1.3056	1.4428	1.4561	1.7941	1.5741	1.4819	2.2481	
13	1.8064	1.7976	1.7383	1.6067	1.7518	1.2179	0.5741	
	1.3324	1.3459	1.4318	1.6402	1.4818	1.9571	4.0972	
14	1.8824	1.8721	1.8374	1.6766	1.0709	0.5740		
	1.2753	1.2878	1.3443	1.5446	2.2474	4.0980		
15	0.9327	0.9237	0.8798	0.7411	F-SUB-Q			
	2.3364	2.3636	2.5103	3.1013	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7504	1.6273	1.6102	1.6175	1.8753	1.8216	1.9081	0.9295
	1.5843	1.7082	1.6345	1.5701	1.3340	1.3594	1.2938	2.4096
9	1.6273	1.8531	1.8439	1.8256	1.6965	1.8122	1.8975	0.9215
	1.7082	1.4668	1.4180	1.3954	1.4834	1.3741	1.3071	2.4397
10	1.6102	1.8440	1.5851	1.5377	1.7333	1.7529	1.8641	0.8743
	1.6345	1.4180	1.6625	1.7004	1.4891	1.4638	1.3656	2.6001
11	1.6175	1.8257	1.5387	1.7613	1.4753	1.6240	1.7008	0.7367
	1.5701	1.3954	1.6994	1.5376	1.8358	1.6637	1.5718	3.2184
12	1.8753	1.6966	1.7336	1.4753	1.6597	1.7743	1.0684	
	1.3340	1.4833	1.4889	1.8359	1.6032	1.5012	2.3119	
13	1.8216	1.8124	1.7534	1.6242	1.7744	1.2155	0.5686	
	1.3594	1.3739	1.4635	1.6637	1.5012	2.0125	4.2460	
14	1.9081	1.8977	1.8645	1.7013	1.0685	0.5685		
	1.2938	1.3070	1.3652	1.5713	2.3113	4.2468		
15	0.9295	0.9211	0.8760	0.7375	F-SUB-Q			
	2.4096	2.4398	2.5968	3.2166	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7439	1.6156	1.5993	1.6080	1.8722	1.8194	1.9113	0.9227
	1.6330	1.7685	1.7160	1.6457	1.3899	1.4131	1.3406	2.5181
9	1.6156	1.8463	1.8358	1.8197	1.6885	1.8103	1.9009	0.9155
	1.7685	1.5344	1.4848	1.4572	1.5512	1.4287	1.3546	2.5489
10	1.5993	1.8360	1.5730	1.5266	1.7300	1.7518	1.8693	0.8687
	1.7160	1.4847	1.7468	1.7856	1.5526	1.5229	1.4149	2.7178
11	1.6080	1.8198	1.5276	1.7556	1.4673	1.6227	1.7055	0.7317
	1.6457	1.4572	1.7845	1.5943	1.8872	1.7029	1.6175	3.3690
12	1.8722	1.6886	1.7303	1.4673	1.6568	1.7764	1.0631	
	1.3899	1.5511	1.5524	1.8872	1.6475	1.5374	2.3726	
13	1.8194	1.8106	1.7522	1.6230	1.7765	1.2090	0.5624	
	1.4131	1.4285	1.5225	1.7028	1.5373	2.0802	4.3997	
14	1.9113	1.9011	1.8697	1.7060	1.0632	0.5623		
	1.3406	1.3545	1.4146	1.6171	2.3720	4.4005		
15	0.9227	0.9151	0.8704	0.7324	F-SUB-Q			
	2.5181	2.5491	2.7143	3.3671	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7382	* 1.6035	* 1.5880	* 1.5979	* 1.8697	* 1.8163	* 1.9143	* 0.9130
	* 1.7026	* 1.8378	* 1.8163	* 1.7393	* 1.4592	* 1.4815	* 1.4004	* 2.6607
9	* 1.6035	* 1.8401	* 1.8275	* 1.8143	* 1.6798	* 1.8070	* 1.9038	* 0.9063
	* 1.8378	* 1.5936	* 1.5672	* 1.5326	* 1.6352	* 1.4980	* 1.4151	* 2.6924
10	* 1.5880	* 1.8277	* 1.5613	* 1.5156	* 1.7281	* 1.7490	* 1.8735	* 0.8593
	* 1.8163	* 1.5671	* 1.8500	* 1.8904	* 1.6296	* 1.5973	* 1.4778	* 2.8739
11	* 1.5979	* 1.8144	* 1.5167	* 1.7510	* 1.4586	* 1.6220	* 1.7085	* 0.7231
	* 1.7393	* 1.5326	* 1.8891	* 1.6541	* 1.9661	* 1.7617	* 1.6617	* 3.5529
12	* 1.8697	* 1.6799	* 1.7283	* 1.4585	* 1.6530	* 1.7781	* 1.0511	
	* 1.4592	* 1.6351	* 1.6293	* 1.9662	* 1.7126	* 1.5898	* 2.4795	
13	* 1.8163	* 1.8073	* 1.7494	* 1.6223	* 1.7782	* 1.1976	* 0.5542	
	* 1.4815	* 1.4978	* 1.5969	* 1.7616	* 1.5897	* 2.1733	* 4.6085	
14	* 1.9143	* 1.9040	* 1.8740	* 1.7090	* 1.0512	* 0.5541		
	* 1.4004	* 1.4150	* 1.4774	* 1.6613	* 2.4788	* 4.6094		
15	* 0.9130	* 0.9058	* 0.8610	* 0.7238	* F-SUB-Q			
	* 2.6607	* 2.6929	* 2.8700	* 3.5510	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6920	* 1.5658	* 1.5516	* 1.5622	* 1.8273	* 1.7805	* 1.8728	* 0.9038
	* 1.8092	* 1.9508	* 1.9623	* 1.8800	* 1.5750	* 1.5918	* 1.5071	* 2.8270
9	* 1.5658	* 1.7952	* 1.7864	* 1.7707	* 1.6433	* 1.7714	* 1.8628	* 0.8976
	* 1.9508	* 1.6960	* 1.6950	* 1.6612	* 1.7630	* 1.6099	* 1.5230	* 2.8543
10	* 1.5516	* 1.7867	* 1.5247	* 1.4817	* 1.6854	* 1.7151	* 1.8356	* 0.8558
	* 1.9623	* 1.6948	* 1.9891	* 2.0351	* 1.7619	* 1.7161	* 1.5880	* 3.0355
11	* 1.5622	* 1.7709	* 1.4827	* 1.7101	* 1.4269	* 1.5831	* 1.6734	* 0.7207
	* 1.8800	* 1.6611	* 2.0337	* 1.7526	* 2.0932	* 1.8672	* 1.7524	* 3.6873
12	* 1.8273	* 1.6434	* 1.6857	* 1.4269	* 1.6193	* 1.7400	* 1.0474	
	* 1.5750	* 1.7630	* 1.7616	* 2.0932	* 1.8253	* 1.6952	* 2.5871	
13	* 1.7805	* 1.7717	* 1.7155	* 1.5834	* 1.7401	* 1.1880	* 0.5507	
	* 1.5918	* 1.6096	* 1.7157	* 1.8667	* 1.6951	* 2.2873	* 4.8327	
14	* 1.8728	* 1.8630	* 1.8360	* 1.6738	* 1.0475	* 0.5505		
	* 1.5071	* 1.5228	* 1.5876	* 1.7520	* 2.5864	* 4.8337		
15	* 0.9038	* 0.8972	* 0.8574	* 0.7215	* F-SUB-Q			
	* 2.8270	* 2.8546	* 3.0318	* 3.6854	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6942	1.5565	1.5428	1.5545	1.8305	1.7812	1.8839	0.8875
	1.8874	2.0528	2.0655	2.0050	1.6662	1.6841	1.5850	3.0411
9	1.5565	1.7950	1.7825	1.7719	1.6375	1.7721	1.8738	0.8819
	2.0528	1.7747	1.7785	1.7569	1.8763	1.7027	1.6013	3.0734
10	1.5428	1.7829	1.5157	1.4719	1.6913	1.7165	1.8466	0.8374
	2.0655	1.7782	2.0946	2.1426	1.8353	1.7900	1.6558	3.2741
11	1.5545	1.7720	1.4731	1.7109	1.4203	1.5894	1.6825	0.7036
	2.0050	1.7569	2.1410	1.8241	2.1847	1.9330	1.8138	3.9332
12	1.8305	1.6375	1.6916	1.4202	1.6193	1.7483	1.0253	
	1.6662	1.8762	1.8350	2.1847	1.8992	1.7542	2.7397	
13	1.7812	1.7724	1.7170	1.5897	1.7484	1.1679	0.5366	
	1.6841	1.7024	1.7896	1.9325	1.7542	2.4238	5.1485	
14	1.8839	1.8740	1.8471	1.6830	1.0254	0.5364		
	1.5850	1.6011	1.6554	1.8133	2.7390	5.1496		
15	0.8875	0.8815	0.8391	0.7043	F-SUB-Q			
	3.0411	3.0741	3.2697	3.9311	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6686	1.5297	1.5170	1.5295	1.8065	1.7588	1.8636	0.8727
	1.8922	2.0579	2.0718	2.0471	1.7368	1.7882	1.6869	3.2736
9	1.5297	1.7683	1.7561	1.7475	1.6126	1.7501	1.8538	0.8678
	2.0579	1.7805	1.7916	1.7941	1.9461	1.7993	1.6978	3.3053
10	1.5170	1.7565	1.4895	1.4470	1.6687	1.6960	1.8282	0.8245
	2.0718	1.7911	2.1098	2.1712	1.8885	1.8645	1.7291	3.4745
11	1.5295	1.7475	1.4481	1.6866	1.3981	1.5694	1.6652	0.6922
	2.0471	1.7940	2.1696	1.8744	2.2753	2.0216	1.9051	4.1656
12	1.8065	1.6127	1.6690	1.3980	1.5986	1.7288	1.0104	
	1.7368	1.9461	1.8882	2.2750	2.0083	1.8538	2.9053	
13	1.7588	1.7503	1.6964	1.5696	1.7289	1.1504	0.5266	
	1.7882	1.7990	1.8640	2.0212	1.8537	2.5688	5.4693	
14	1.8636	1.8540	1.8286	1.6656	1.0105	0.5264		
	1.6869	1.6977	1.7287	1.9046	2.9044	5.4704		
15	0.8727	0.8673	0.8262	0.6930	F-SUB-Q			
	3.2736	3.3061	3.4698	4.1633	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6189	1.4879	1.4762	1.4893	1.7591	1.7174	1.8171	0.8584
	1.8984	2.0589	2.0715	2.0452	1.7349	1.7811	1.6824	3.2426
9	1.4879	1.7190	1.7098	1.6977	1.5708	1.7085	1.8075	0.8537
	2.0589	1.7830	1.7908	1.7976	1.9436	1.7938	1.6944	3.2680
10	1.4762	1.7102	1.4492	1.4093	1.6222	1.6565	1.7849	0.8150
	2.0715	1.7903	2.1104	2.1699	1.8921	1.8600	1.7259	3.4237
11	1.4893	1.6979	1.4104	1.6411	1.3620	1.5277	1.6249	0.6849
	2.0452	1.7976	2.1681	1.8799	2.2769	2.0246	1.9034	4.1015
12	1.7591	1.5709	1.6225	1.3619	1.5596	1.6860	0.9988	
	1.7349	1.9436	1.8918	2.2766	2.0139	1.8599	2.8669	
13	1.7174	1.7088	1.6569	1.5281	1.6861	1.1332	0.5192	
	1.7811	1.7935	1.8595	2.0241	1.8598	2.5610	5.4783	
14	1.8171	1.8077	1.7853	1.6254	0.9989	0.5191		
	1.6824	1.6943	1.7255	1.9029	2.8661	5.4794		
15	0.8584	0.8533	0.8166	0.6856	F-SUB-Q			
	3.2426	3.2688	3.4194	4.0992	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.6096	1.4689	1.4582	1.4717	1.7492	1.7061	1.8152	0.8373
	1.8224	1.9878	1.9986	1.9751	1.6732	1.7188	1.6138	3.1599
9	1.4689	1.7064	1.6946	1.6900	1.5547	1.6977	1.8059	0.8337
	1.9878	1.7152	1.7282	1.7245	1.8814	1.7353	1.6283	3.1765
10	1.4582	1.6951	1.4306	1.3902	1.6160	1.6471	1.7833	0.7929
	1.9986	1.7276	2.0353	2.0908	1.8152	1.7964	1.6592	3.3275
11	1.4717	1.6901	1.3914	1.6301	1.3466	1.5259	1.6230	0.6646
	1.9751	1.7244	2.0891	1.7993	2.1942	1.9384	1.8228	3.9849
12	1.7492	1.5547	1.6163	1.3466	1.5493	1.6821	0.9718	
	1.6732	1.8813	1.8149	2.1940	1.9450	1.7841	2.7922	
13	1.7061	1.6980	1.6475	1.5263	1.6822	1.1072	0.5029	
	1.7188	1.7350	1.7960	1.9379	1.7840	2.4920	5.3087	
14	1.8152	1.8061	1.7838	1.6234	0.9718	0.5027		
	1.6138	1.6282	1.6588	1.8224	2.7915	5.3099		
15	0.8373	0.8331	0.7945	0.6653	F-SUB-Q			
	3.1599	3.1774	3.3230	3.9827	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5808	1.4387	1.4287	1.4429	1.7206	1.6792	1.7912	0.8181
	1.6775	1.8361	1.8466	1.8275	1.5455	1.5929	1.4913	2.9377
9	1.4387	1.6759	1.6634	1.6620	1.5251	1.6708	1.7820	0.8147
	1.8361	1.5804	1.5945	1.5909	1.7407	1.6044	1.5025	2.9532
10	1.4287	1.6640	1.4012	1.3617	1.5899	1.6220	1.7611	0.7747
	1.8466	1.5940	1.8820	1.9338	1.6737	1.6547	1.5244	3.0961
11	1.4429	1.6621	1.3630	1.6018	1.3206	1.5060	1.6022	0.6490
	1.8275	1.5908	1.9321	1.6566	2.0227	1.7788	1.6723	3.7035
12	1.7206	1.5252	1.5902	1.3205	1.5259	1.6591	0.9499	
	1.5455	1.7407	1.6734	2.0225	1.7885	1.6367	2.5831	
13	1.6792	1.6711	1.6224	1.5064	1.6592	1.0835	0.4896	
	1.5929	1.6041	1.6543	1.7784	1.6367	2.3043	4.9339	
14	1.7912	1.7822	1.7615	1.6026	0.9500	0.4894		
	1.4913	1.5023	1.5241	1.6719	2.5825	4.9350		
15	0.8181	0.8142	0.7763	0.6497	F-SUB-Q			
	2.9377	2.9542	3.0918	3.7014	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5438	1.4035	1.3944	1.4086	1.6834	1.6440	1.7555	0.8002
	1.5697	1.7204	1.7303	1.7090	1.4413	1.4861	1.3902	2.7483
9	1.4035	1.6377	1.6259	1.6244	1.4899	1.6359	1.7467	0.7974
	1.7204	1.4782	1.4922	1.4870	1.6268	1.4958	1.3995	2.7586
10	1.3944	1.6265	1.3668	1.3290	1.5548	1.5888	1.7274	0.7596
	1.7303	1.4916	1.7646	1.8125	1.5671	1.5464	1.4226	2.8943
11	1.4086	1.6245	1.3302	1.5666	1.2899	1.4760	1.5710	0.6358
	1.7090	1.4869	1.8109	1.5495	1.8922	1.6598	1.5597	3.4637
12	1.6834	1.4899	1.5550	1.2899	1.4947	1.6260	0.9319	
	1.4413	1.6268	1.5668	1.8920	1.6650	1.5216	2.4048	
13	1.6440	1.6362	1.5892	1.4764	1.6261	1.0615	0.4789	
	1.4861	1.4955	1.5460	1.6594	1.5215	2.1428	4.6035	
14	1.7555	1.7469	1.7278	1.5714	0.9320	0.4787		
	1.3902	1.3993	1.4223	1.5593	2.4042	4.6046		
15	0.8002	0.7969	0.7611	0.6365	F-SUB-Q			
	2.7483	2.7595	2.8904	3.4617	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4939	* 1.3615	* 1.3530	* 1.3675	* 1.6336	* 1.5985	* 1.7043	* 0.7841
	* 1.6135	* 1.7636	* 1.7708	* 1.7480	* 1.4763	* 1.5200	* 1.4241	* 2.7952
9	* 1.3615	* 1.5875	* 1.5780	* 1.5731	* 1.4463	* 1.5903	* 1.6957	* 0.7813
	* 1.7636	* 1.5164	* 1.5250	* 1.5243	* 1.6646	* 1.5289	* 1.4328	* 2.8028
10	* 1.3530	* 1.5786	* 1.3260	* 1.2907	* 1.5061	* 1.5451	* 1.6791	* 0.7474
	* 1.7708	* 1.5244	* 1.8061	* 1.8537	* 1.6077	* 1.5808	* 1.4541	* 2.9224
11	* 1.3675	* 1.5732	* 1.2919	* 1.5196	* 1.2526	* 1.4334	* 1.5266	* 0.6265
	* 1.7480	* 1.5242	* 1.8520	* 1.5937	* 1.9406	* 1.7034	* 1.5993	* 3.5066
12	* 1.6336	* 1.4463	* 1.5064	* 1.2525	* 1.4539	* 1.5795	* 0.9179	
	* 1.4763	* 1.6646	* 1.6074	* 1.9407	* 1.6998	* 1.5556	* 2.4309	
13	* 1.5985	* 1.5906	* 1.5454	* 1.4337	* 1.5796	* 1.0419	* 0.4705	
	* 1.5200	* 1.5286	* 1.5805	* 1.7030	* 1.5555	* 2.1680	* 4.6663	
14	* 1.7043	* 1.6960	* 1.6795	* 1.5270	* 0.9180	* 0.4703		
	* 1.4241	* 1.4326	* 1.4537	* 1.5989	* 2.4304	* 4.6674		
15	* 0.7841	* 0.7808	* 0.7489	* 0.6272	* F-SUB-Q			
	* 2.7952	* 2.8037	* 2.9187	* 3.5047	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4834	* 1.3416	* 1.3339	* 1.3484	* 1.6207	* 1.5825	* 1.6973	* 0.7609
	* 1.5011	* 1.6553	* 1.6629	* 1.6459	* 1.3822	* 1.4264	* 1.3287	* 2.6809
9	* 1.3416	* 1.5735	* 1.5610	* 1.5637	* 1.4276	* 1.5748	* 1.6891	* 0.7589
	* 1.6553	* 1.4150	* 1.4284	* 1.4235	* 1.5660	* 1.4337	* 1.3362	* 2.6846
10	* 1.3339	* 1.5616	* 1.3067	* 1.2706	* 1.4973	* 1.5308	* 1.6718	* 0.7228
	* 1.6629	* 1.4278	* 1.6978	* 1.7445	* 1.4991	* 1.4778	* 1.3528	* 2.8073
11	* 1.3484	* 1.5638	* 1.2719	* 1.5069	* 1.2355	* 1.4270	* 1.5194	* 0.6041
	* 1.6459	* 1.4234	* 1.7428	* 1.4847	* 1.8234	* 1.5849	* 1.4881	* 3.3689
12	* 1.6207	* 1.4277	* 1.4976	* 1.2355	* 1.4415	* 1.5715	* 0.8874	
	* 1.3822	* 1.5659	* 1.4988	* 1.8235	* 1.5856	* 1.4495	* 2.3366	
13	* 1.5825	* 1.5751	* 1.5312	* 1.4274	* 1.5716	* 1.0131	* 0.4534	
	* 1.4264	* 1.4334	* 1.4775	* 1.5845	* 1.4494	* 2.0686	* 4.5037	
14	* 1.6973	* 1.6893	* 1.6722	* 1.5198	* 0.8875	* 0.4532		
	* 1.3287	* 1.3360	* 1.3524	* 1.4877	* 2.3360	* 4.5048		
15	* 0.7609	* 0.7584	* 0.7243	* 0.6048	* F-SUB-Q			
	* 2.6809	* 2.6857	* 2.8033	* 3.3669	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.4485	* 1.3091	* 1.3021	* 1.3163	* 1.5843	* 1.5481	* 1.6611	* 0.7411
	* 1.4365	* 1.5880	* 1.5959	* 1.5820	* 1.3265	* 1.3680	* 1.2737	* 2.5880
9	* 1.3091	* 1.5369	* 1.5257	* 1.5282	* 1.3944	* 1.5404	* 1.6532	* 0.7392
	* 1.5880	* 1.3562	* 1.3691	* 1.3662	* 1.5040	* 1.3745	* 1.2803	* 2.5897
10	* 1.3021	* 1.5264	* 1.2756	* 1.2403	* 1.4642	* 1.4977	* 1.6366	* 0.7043
	* 1.5959	* 1.3685	* 1.6298	* 1.6749	* 1.4366	* 1.4142	* 1.2938	* 2.7043
11	* 1.3163	* 1.5283	* 1.2416	* 1.4732	* 1.2068	* 1.3960	* 1.4864	* 0.5882
	* 1.5820	* 1.3661	* 1.6732	* 1.4205	* 1.7396	* 1.5144	* 1.4216	* 3.2424
12	* 1.5843	* 1.3944	* 1.4644	* 1.2068	* 1.4115	* 1.5383	* 0.8649	
	* 1.3265	* 1.5040	* 1.4363	* 1.7397	* 1.5053	* 1.3787	* 2.2371	
13	* 1.5481	* 1.5408	* 1.4980	* 1.3964	* 1.5384	* 0.9888	* 0.4412	
	* 1.3680	* 1.3742	* 1.4139	* 1.5140	* 1.3786	* 1.9742	* 4.3196	
14	* 1.6611	* 1.6534	* 1.6370	* 1.4869	* 0.8650	* 0.4411		
	* 1.2737	* 1.2801	* 1.2935	* 1.4212	* 2.2365	* 4.3207		
15	* 0.7411	* 0.7387	* 0.7059	* 0.5889	* F-SUB-Q			
	* 2.5880	* 2.5908	* 2.7004	* 3.2403	* M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.3849	* 1.2615	* 1.2552	* 1.2685	* 1.5190	* 1.4913	* 1.5895	* 0.7239
	* 1.4222	* 1.5606	* 1.5685	* 1.5561	* 1.3110	* 1.3452	* 1.2610	* 2.5156
9	* 1.2615	* 1.4719	* 1.4689	* 1.4616	* 1.3447	* 1.4841	* 1.5822	* 0.7220
	* 1.5606	* 1.3406	* 1.3469	* 1.3538	* 1.4780	* 1.3512	* 1.2671	* 2.5173
10	* 1.2552	* 1.4696	* 1.2301	* 1.1974	* 1.4026	* 1.4430	* 1.5673	* 0.6920
	* 1.5685	* 1.3462	* 1.6013	* 1.6437	* 1.4202	* 1.3888	* 1.2779	* 2.6113
11	* 1.2685	* 1.4617	* 1.1987	* 1.4145	* 1.1656	* 1.3355	* 1.4219	* 0.5786
	* 1.5561	* 1.3537	* 1.6421	* 1.4020	* 1.7009	* 1.4964	* 1.4042	* 3.1238
12	* 1.5190	* 1.3447	* 1.4029	* 1.1656	* 1.3600	* 1.4743	* 0.8500	
	* 1.3110	* 1.4780	* 1.4200	* 1.7010	* 1.4704	* 1.3551	* 2.1504	
13	* 1.4913	* 1.4844	* 1.4433	* 1.3359	* 1.4743	* 0.9680	* 0.4343	
	* 1.3452	* 1.3509	* 1.3885	* 1.4960	* 1.3550	* 1.9001	* 4.1449	
14	* 1.5895	* 1.5824	* 1.5677	* 1.4223	* 0.8501	* 0.4342		
	* 1.2610	* 1.2669	* 1.2776	* 1.4038	* 2.1499	* 4.1459		
15	* 0.7239	* 0.7215	* 0.6934	* 0.5792	* F-SUB-Q			
	* 2.5156	* 2.5182	* 2.6079	* 3.1219	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.3543	1.2324	1.2248	1.2402	1.4800	1.4573	1.5498	0.6981
	1.3911	1.5286	1.5382	1.5234	1.2873	1.3165	1.2371	2.5007
9	1.2324	1.4310	1.4344	1.4293	1.3161	1.4506	1.5426	0.6961
	1.5286	1.3191	1.3192	1.3247	1.4447	1.3216	1.2426	2.5020
10	1.2248	1.4351	1.2013	1.1702	1.3749	1.4124	1.5274	0.6645
	1.5382	1.3185	1.5695	1.6105	1.3858	1.3557	1.2527	2.6054
11	1.2402	1.4294	1.1715	1.3829	1.1437	1.3045	1.3860	0.5534
	1.5234	1.3247	1.6088	1.3691	1.6559	1.4636	1.3762	3.1274
12	1.4800	1.3161	1.3751	1.1436	1.3308	1.4394	0.8154	
	1.2873	1.4447	1.3856	1.6560	1.4327	1.3237	2.1420	
13	1.4573	1.4509	1.4128	1.3049	1.4394	0.9320	0.4163	
	1.3165	1.3214	1.3554	1.4633	1.3237	1.8836	4.1358	
14	1.5498	1.5428	1.5278	1.3864	0.8155	0.4162		
	1.2371	1.2425	1.2524	1.3758	2.1415	4.1369		
15	0.6981	0.6956	0.6659	0.5540	F-SUB-Q			
	2.5007	2.5030	2.6018	3.1254	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2875	1.1736	1.1484	1.1820	1.3962	1.3689	1.4473	0.6705
	1.4127	1.5485	1.5850	1.5436	1.3153	1.3524	1.2783	2.5189
9	1.1736	1.3490	1.3455	1.3513	1.2482	1.3622	1.4403	0.6687
	1.5485	1.3506	1.3577	1.3527	1.4658	1.3580	1.2843	2.5204
10	1.1484	1.3462	1.1246	1.1187	1.2977	1.3321	1.4297	0.6362
	1.5850	1.3571	1.6196	1.6297	1.4172	1.3867	1.2907	2.6329
11	1.1820	1.3514	1.1194	1.3195	1.0952	1.2416	1.3086	0.5266
	1.5436	1.3527	1.6287	1.3865	1.6670	1.4780	1.4053	3.1797
12	1.3962	1.2482	1.2979	1.0953	1.2553	1.3511	0.7851	
	1.3153	1.4658	1.4170	1.6669	1.4638	1.3594	2.1486	
13	1.3689	1.3625	1.3324	1.2418	1.3512	0.8789	0.3934	
	1.3524	1.3577	1.3864	1.4778	1.3593	1.9282	4.2356	
14	1.4473	1.4405	1.4300	1.3090	0.7851	0.3932		
	1.2783	1.2841	1.2904	1.4050	2.1481	4.2367		
15	0.6705	0.6682	0.6374	0.5272	F-SUB-Q			
	2.5189	2.5213	2.6296	3.1777	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 75% POWER, 4 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.2995	1.0110	0.9427	1.0102	1.3592	1.1327	1.3222	0.5827
	1.3601	1.7487	1.8797	1.7576	1.3125	1.5890	1.3596	2.8286
9	1.0110	1.3080	1.1269	1.3290	1.0752	1.1262	1.3151	0.5848
	1.7487	1.3539	1.5765	1.3369	1.6559	1.5976	1.3666	2.8115
10	0.9427	1.1275	0.9198	0.9683	1.2933	1.1082	1.2828	0.5531
	1.8797	1.5757	1.9286	1.8315	1.3793	1.6206	1.3991	2.9542
11	1.0102	1.3292	0.9689	1.2964	0.9555	1.2509	1.1708	0.4538
	1.7576	1.3367	1.8304	1.3713	1.8624	1.4272	1.5278	3.6021
12	1.3592	1.0752	1.2935	0.9556	1.0510	1.2009	0.6986	
	1.3125	1.6560	1.3791	1.8622	1.7005	1.4874	2.3532	
13	1.1327	1.1264	1.1084	1.2510	1.2010	0.7432	0.3313	
	1.5890	1.5973	1.6203	1.4270	1.4873	2.2222	4.9122	
14	1.3222	1.3153	1.2831	1.1711	0.6986	0.3312		
	1.3596	1.3665	1.3987	1.5275	2.3527	4.9134		
15	0.5827	0.5845	0.5538	0.4542	F-SUB-Q			
	2.8286	2.8122	2.9530	3.6002	M-SUB-Q			

AT 75% POWER, 4 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.5120	0.4358	0.4070	0.4429	0.5267	0.4448	0.4746	0.2446
	3.3668	3.9633	4.2568	3.9189	3.3011	3.9265	3.6957	6.5944
9	0.4358	0.5057	0.4444	0.5119	0.4575	0.4388	0.4717	0.2446
	3.9633	3.4159	3.8996	3.3864	3.8006	3.9953	3.7173	6.5795
10	0.4070	0.4446	0.3971	0.4282	0.5051	0.4344	0.4573	0.2338
	4.2568	3.8978	4.3637	4.0521	3.4388	4.0157	3.8294	6.8398
11	0.4429	0.5120	0.4284	0.4881	0.4220	0.4814	0.4207	0.1959
	3.9189	3.3859	4.0506	3.5531	4.1235	3.6209	4.1526	8.1722
12	0.5267	0.4575	0.5052	0.4221	0.4083	0.4321	0.2911	
	3.3011	3.8006	3.4381	4.1230	4.2709	4.0360	5.5213	
13	0.4448	0.4389	0.4344	0.4814	0.4321	0.3011	0.1458	
	3.9265	3.9946	4.0150	3.6204	4.0358	5.3586	10.9413	
14	0.4746	0.4717	0.4574	0.4208	0.2911	0.1458		
	3.6957	3.7169	3.8286	4.1517	5.5201	10.9431		
15	0.2446	0.2445	0.2340	0.1960	F-SUB-Q			
	6.5944	6.5796	6.8402	8.1695	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 24 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 0.5968	* 0.5918	* 0.5828	* 0.6279	* 0.7326	* 0.6303	* 0.6397	* 0.3417
	* 4.0838	* 4.7727	* 4.8219	* 4.3114	* 3.6699	* 4.2678	* 4.2201	* 7.1812
9	* 0.5918	* 0.6993	* 0.6266	* 0.7169	* 0.6487	* 0.6161	* 0.6348	* 0.3402
	* 4.7727	* 4.2077	* 4.4828	* 3.8111	* 4.1677	* 4.3910	* 4.2782	* 7.2232
10	* 0.5828	* 0.6267	* 0.5713	* 0.6054	* 0.6991	* 0.6052	* 0.6072	* 0.3205
	* 4.8220	* 4.4820	* 5.0218	* 4.5996	* 4.0083	* 4.6179	* 4.5408	* 7.6985
11	* 0.6279	* 0.7170	* 0.6055	* 0.6657	* 0.5830	* 0.6407	* 0.5589	* 0.2700
	* 4.3114	* 3.8108	* 4.5986	* 4.3404	* 4.9452	* 4.4604	* 5.1667	* 9.4684
12	* 0.7326	* 0.6488	* 0.6992	* 0.5831	* 0.5204	* 0.5432	* 0.3855	
	* 3.6699	* 4.1675	* 4.0077	* 4.9448	* 5.0239	* 4.8902	* 6.6596	
13	* 0.6303	* 0.6162	* 0.6053	* 0.6408	* 0.5433	* 0.3817	* 0.2018	
	* 4.2678	* 4.3907	* 4.6171	* 4.4598	* 4.8900	* 6.2351	* 12.1938	
14	* 0.6397	* 0.6348	* 0.6073	* 0.5590	* 0.3856	* 0.2017		
	* 4.2201	* 4.2778	* 4.5398	* 5.1654	* 6.6577	* 12.1956		
15	* 0.3417	* 0.3401	* 0.3209	* 0.2702	F-SUB-Q			
	* 7.1812	* 7.2218	* 7.6938	* 9.4651	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 23 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6300	* 1.3617	* 1.3053	* 1.3878	* 1.7778	* 1.5161	* 1.6717	* 0.8129
	* 1.7591	* 2.1886	* 2.2255	* 2.0210	* 1.5652	* 1.8373	* 1.6743	* 3.1319
9	* 1.3617	* 1.7176	* 1.5191	* 1.7488	* 1.4676	* 1.4928	* 1.6597	* 0.8097
	* 2.1886	* 1.7615	* 1.9093	* 1.6152	* 1.9086	* 1.8750	* 1.6853	* 3.1413
10	* 1.3053	* 1.5192	* 1.2844	* 1.3302	* 1.6921	* 1.4538	* 1.5982	* 0.7592
	* 2.2255	* 1.9091	* 2.3042	* 2.1732	* 1.7113	* 1.9847	* 1.7847	* 3.3584
11	* 1.3878	* 1.7489	* 1.3306	* 1.6801	* 1.2859	* 1.5796	* 1.4513	* 0.6291
	* 2.0210	* 1.6151	* 2.1727	* 1.7831	* 2.3105	* 1.8731	* 2.0480	* 4.2095
12	* 1.7778	* 1.4676	* 1.6924	* 1.2861	* 1.3022	* 1.4685	* 0.9299	
	* 1.5652	* 1.9085	* 1.7111	* 2.3103	* 2.1087	* 1.9221	* 2.8641	
13	* 1.5161	* 1.4930	* 1.4540	* 1.5798	* 1.4686	* 0.9828	* 0.4689	
	* 1.8373	* 1.8748	* 1.9843	* 1.8729	* 1.9220	* 2.5969	* 5.4632	
14	* 1.6717	* 1.6599	* 1.5986	* 1.4516	* 0.9300	* 0.4688		
	* 1.6743	* 1.6851	* 1.7843	* 2.0476	* 2.8633	* 5.4642		
15	* 0.8129	* 0.8095	* 0.7601	* 0.6297	F-SUB-Q			
	* 3.1319	* 3.1410	* 3.3566	* 4.2078	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6707	* 1.5996	* 1.5735	* 1.6106	* 1.8151	* 1.7936	* 1.8168	* 0.9465
	* 1.8588	* 1.9570	* 1.8925	* 1.7851	* 1.5682	* 1.5864	* 1.5591	* 2.7219
9	* 1.5996	* 1.7679	* 1.7915	* 1.7572	* 1.6921	* 1.7785	* 1.8058	* 0.9354
	* 1.9570	* 1.7547	* 1.6579	* 1.6396	* 1.6904	* 1.6022	* 1.5748	* 2.7550
10	* 1.5735	* 1.7914	* 1.5538	* 1.5303	* 1.6795	* 1.7169	* 1.7650	* 0.8862
	* 1.8925	* 1.6579	* 1.9285	* 1.9384	* 1.7486	* 1.7084	* 1.6498	* 2.9403
11	* 1.6106	* 1.7573	* 1.5308	* 1.7071	* 1.4772	* 1.5709	* 1.6084	* 0.7397
	* 1.7851	* 1.6395	* 1.9378	* 1.8014	* 2.0521	* 1.9401	* 1.9000	* 3.6706
12	* 1.8151	* 1.6922	* 1.6797	* 1.4773	* 1.6061	* 1.6640	* 1.0680	
	* 1.5682	* 1.6903	* 1.7484	* 2.0521	* 1.8203	* 1.7623	* 2.5662	
13	* 1.7936	* 1.7787	* 1.7173	* 1.5711	* 1.6641	* 1.1897	* 0.5681	
	* 1.5864	* 1.6021	* 1.7080	* 1.9400	* 1.7622	* 2.2484	* 4.6554	
14	* 1.8168	* 1.8059	* 1.7654	* 1.6088	* 1.0682	* 0.5680		
	* 1.5591	* 1.5747	* 1.6494	* 1.8995	* 2.5654	* 4.6563		
15	* 0.9465	* 0.9352	* 0.8877	* 0.7404	* F-SUB-Q			
	* 2.7219	* 2.7546	* 2.9375	* 3.6689	* M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.8024	* 1.7125	* 1.6950	* 1.7078	* 1.9582	* 1.9347	* 1.9868	* 0.9817
	* 1.7932	* 1.9055	* 1.8061	* 1.7301	* 1.4918	* 1.5008	* 1.4580	* 2.6828
9	* 1.7125	* 1.9138	* 1.9377	* 1.8914	* 1.8059	* 1.9243	* 1.9752	* 0.9705
	* 1.9055	* 1.6590	* 1.5739	* 1.5646	* 1.6259	* 1.5169	* 1.4736	* 2.7249
10	* 1.6950	* 1.9377	* 1.6739	* 1.6236	* 1.8129	* 1.8540	* 1.9287	* 0.9172
	* 1.8061	* 1.5740	* 1.8346	* 1.8785	* 1.6642	* 1.6236	* 1.5494	* 2.9149
11	* 1.7078	* 1.8915	* 1.6244	* 1.8270	* 1.5571	* 1.6803	* 1.7439	* 0.7680
	* 1.7301	* 1.5645	* 1.8776	* 1.7265	* 1.9945	* 1.8503	* 1.8030	* 3.6358
12	* 1.9582	* 1.8060	* 1.8132	* 1.5571	* 1.7400	* 1.8218	* 1.1073	
	* 1.4918	* 1.6258	* 1.6640	* 1.9945	* 1.7408	* 1.6666	* 2.5576	
13	* 1.9347	* 1.9245	* 1.8545	* 1.6806	* 1.8219	* 1.2674	* 0.5931	
	* 1.5008	* 1.5167	* 1.6232	* 1.8502	* 1.6665	* 2.1886	* 4.6133	
14	* 1.9869	* 1.9754	* 1.9292	* 1.7444	* 1.1075	* 0.5930		
	* 1.4580	* 1.4735	* 1.5491	* 1.8025	* 2.5568	* 4.6142		
15	* 0.9817	* 0.9701	* 0.9190	* 0.7688	* F-SUB-Q			
	* 2.6828	* 2.7250	* 2.9113	* 3.6338	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8442	1.7355	1.7179	1.7298	2.0079	1.9735	2.0456	0.9932
	1.8270	1.9575	1.8401	1.7625	1.5024	1.5188	1.4616	2.7386
9	1.7355	1.9641	1.9729	1.9376	1.8289	1.9617	2.0333	0.9827
	1.9575	1.6705	1.5961	1.5795	1.6568	1.5368	1.4778	2.7771
10	1.7179	1.9729	1.6951	1.6410	1.8502	1.8893	1.9883	0.9303
	1.8401	1.5962	1.8738	1.9198	1.6826	1.6435	1.5521	2.9725
11	1.7298	1.9376	1.6418	1.8665	1.5735	1.7171	1.7974	0.7792
	1.7625	1.5794	1.9188	1.7522	2.0517	1.8725	1.8023	3.6930
12	2.0079	1.8291	1.8505	1.5735	1.7722	1.8761	1.1291	
	1.5024	1.6566	1.6824	2.0517	1.7769	1.6825	2.6075	
13	1.9735	1.9619	1.8898	1.7174	1.8762	1.2927	0.5994	
	1.5188	1.5367	1.6431	1.8723	1.6825	2.2330	4.7519	
14	2.0456	2.0335	1.9888	1.7979	1.1292	0.5993		
	1.4616	1.4777	1.5517	1.8018	2.6067	4.7528		
15	0.9932	0.9823	0.9321	0.7800	F-SUB-Q			
	2.7386	2.7771	2.9687	3.6909	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8409	1.7236	1.7063	1.7195	2.0076	1.9704	2.0517	0.9927
	1.9072	2.0381	1.9200	1.8375	1.5535	1.5709	1.5056	2.8348
9	1.7236	1.9617	1.9643	1.9353	1.8181	1.9584	2.0395	0.9829
	2.0381	1.7310	1.6599	1.6396	1.7239	1.5895	1.5219	2.8688
10	1.7063	1.9643	1.6811	1.6282	1.8456	1.8869	1.9980	0.9329
	1.9200	1.6600	1.9549	2.0026	1.7471	1.7020	1.5961	3.0611
11	1.7195	1.9354	1.6291	1.8637	1.5637	1.7170	1.8078	0.7816
	1.8375	1.6395	2.0015	1.8238	2.1592	1.9583	1.8579	3.8164
12	2.0076	1.8183	1.8459	1.5637	1.7683	1.8826	1.1350	
	1.5535	1.7237	1.7468	2.1592	1.8664	1.7578	2.7177	
13	1.9704	1.9586	1.8874	1.7173	1.8827	1.2954	0.5985	
	1.5709	1.5893	1.7016	1.9582	1.7578	2.3391	4.9981	
14	2.0517	2.0397	1.9985	1.8084	1.1351	0.5983		
	1.5056	1.5218	1.5958	1.8573	2.7169	4.9991		
15	0.9927	0.9825	0.9347	0.7824	F-SUB-Q			
	2.8348	2.8688	3.0573	3.8142	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8391	1.7103	1.6932	1.7082	2.0073	1.9678	2.0601	0.9812
	1.9725	2.1252	2.0313	1.9411	1.6272	1.6429	1.5652	2.9915
9	1.7103	1.9581	1.9550	1.9321	1.8077	1.9557	2.0480	0.9722
	2.1252	1.8196	1.7501	1.7203	1.8172	1.6632	1.5827	3.0298
10	1.6932	1.9551	1.6669	1.6152	1.8462	1.8854	2.0087	0.9214
	2.0313	1.7501	2.0694	2.1199	1.8305	1.7827	1.6609	3.2400
11	1.7082	1.9322	1.6162	1.8614	1.5539	1.7206	1.8184	0.7718
	1.9411	1.7202	2.1186	1.9178	2.2775	2.0460	1.9353	4.0486
12	2.0073	1.8078	1.8465	1.5539	1.7653	1.8899	1.1234	
	1.6272	1.8171	1.8302	2.2775	1.9608	1.8372	2.8762	
13	1.9678	1.9559	1.8859	1.7209	1.8900	1.2820	0.5883	
	1.6429	1.6629	1.7822	2.0459	1.8371	2.4866	5.3489	
14	2.0601	2.0482	2.0092	1.8189	1.1235	0.5881		
	1.5652	1.5826	1.6604	1.9347	2.8754	5.3499		
15	0.9812	0.9718	0.9232	0.7726	F-SUB-Q			
	2.9915	3.0300	3.2358	4.0462	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8140	1.6807	1.6645	1.6809	1.9831	1.9445	2.0420	0.9651
	2.1052	2.2794	2.1992	2.0977	1.7478	1.7602	1.6713	3.2159
9	1.6807	1.9308	1.9258	1.9061	1.7805	1.9329	2.0303	0.9572
	2.2794	1.9630	1.8902	1.8520	1.9590	1.7823	1.6902	3.2563
10	1.6645	1.9260	1.6374	1.5875	1.8241	1.8646	1.9935	0.9072
	2.1992	1.8902	2.2422	2.2949	1.9666	1.9111	1.7729	3.4836
11	1.6809	1.9062	1.5886	1.8373	1.5304	1.7027	1.8055	0.7598
	2.0977	1.8519	2.2934	2.0397	2.4209	2.1705	2.0480	4.3577
12	1.9831	1.7806	1.8244	1.5304	1.7446	1.8732	1.1077	
	1.7478	1.9589	1.9663	2.4209	2.0925	1.9519	3.0552	
13	1.9445	1.9332	1.8650	1.7030	1.8733	1.2631	0.5770	
	1.7602	1.7821	1.9106	2.1703	1.9518	2.6693	5.7555	
14	2.0420	2.0305	1.9940	1.8060	1.1078	0.5769		
	1.6713	1.6900	1.7724	2.0474	3.0544	5.7566		
15	0.9651	0.9567	0.9091	0.7606	F-SUB-Q			
	3.2159	3.2565	3.4790	4.3550	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7892	1.6505	1.6352	1.6527	1.9588	1.9195	2.0227	0.9458
	2.2864	2.4609	2.4151	2.2992	1.9026	1.9133	1.8094	3.5154
9	1.6505	1.9037	1.8961	1.8818	1.7522	1.9080	2.0111	0.9384
	2.4609	2.1218	2.0704	2.0197	2.1412	1.9374	1.8299	3.5610
10	1.6352	1.8964	1.6080	1.5598	1.8028	1.8413	1.9763	0.8888
	2.4151	2.0703	2.4636	2.5193	2.1392	2.0774	1.9186	3.8106
11	1.6527	1.8818	1.5609	1.8134	1.5058	1.6847	1.7899	0.7439
	2.2992	2.0196	2.5176	2.2022	2.6231	2.3300	2.1857	4.7631
12	1.9588	1.7523	1.8031	1.5058	1.7223	1.8554	1.0848	
	1.9026	2.1411	2.1388	2.6231	2.2597	2.0973	3.3136	
13	1.9195	1.9083	1.8418	1.6850	1.8555	1.2389	0.5635	
	1.9133	1.9371	2.0768	2.3294	2.0972	2.8946	6.2463	
14	2.0227	2.0113	1.9768	1.7904	1.0849	0.5633		
	1.8094	1.8297	1.9181	2.1850	3.3127	6.2475		
15	0.9458	0.9379	0.8907	0.7447	F-SUB-Q			
	3.5154	3.5616	3.8053	4.7603	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7227	1.5939	1.5801	1.5980	1.8925	1.8596	1.9559	0.9267
	2.5418	2.7385	2.6735	2.5229	2.0879	2.0986	1.9900	3.7955
9	1.5939	1.8363	1.8324	1.8145	1.6952	1.8485	1.9449	0.9199
	2.7385	2.3675	2.2951	2.2246	2.3425	2.1227	2.0104	3.8297
10	1.5801	1.8326	1.5531	1.5081	1.7388	1.7850	1.9139	0.8763
	2.6735	2.2948	2.7323	2.7760	2.3479	2.2685	2.0965	4.0638
11	1.5980	1.8147	1.5091	1.7517	1.4574	1.6293	1.7336	0.7342
	2.5229	2.2245	2.7740	2.4415	2.9239	2.5687	2.4090	5.0582
12	1.8925	1.6953	1.7391	1.4574	1.6684	1.7955	1.0699	
	2.0879	2.3424	2.3475	2.9239	2.5210	2.3413	3.6174	
13	1.8596	1.8488	1.7855	1.6298	1.7956	1.2160	0.5546	
	2.0986	2.1224	2.2679	2.5680	2.3412	3.1858	6.8339	
14	1.9559	1.9451	1.9144	1.7341	1.0700	0.5544		
	1.9900	2.0102	2.0959	2.4083	3.6164	6.8352		
15	0.9267	0.9194	0.8780	0.7349	F-SUB-Q			
	3.7955	3.8300	4.0587	5.0552	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 14 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.7055	* 1.5663	* 1.5530	* 1.5720	* 1.8736	* 1.8378	* 1.9440	* 0.9002
	* 2.7838	* 3.0260	* 2.8591	* 2.6958	* 2.2119	* 2.2185	* 2.0887	* 4.0586
9	* 1.5663	* 1.8150	* 1.8069	* 1.7979	* 1.6691	* 1.8270	* 1.9332	* 0.8942
	* 3.0260	* 2.5542	* 2.4453	* 2.3575	* 2.4986	* 2.2460	* 2.1119	* 4.1047
10	* 1.5530	* 1.8073	* 1.5262	* 1.4816	* 1.7249	* 1.7654	* 1.9028	* 0.8483
	* 2.8591	* 2.4450	* 2.9210	* 2.9684	* 2.4860	* 2.4075	* 2.2104	* 4.3834
11	* 1.5720	* 1.7980	* 1.4828	* 1.7330	* 1.4345	* 1.6201	* 1.7233	* 0.7092
	* 2.6958	* 2.3574	* 2.9662	* 2.6552	* 3.2089	* 2.7749	* 2.5784	* 5.4858
12	* 1.8736	* 1.6692	* 1.7252	* 1.4344	* 1.6493	* 1.7835	* 1.0363	
	* 2.2119	* 2.4985	* 2.4855	* 3.2090	* 2.7617	* 2.5492	* 4.0184	
13	* 1.8378	* 1.8273	* 1.7658	* 1.6206	* 1.7836	* 1.1824	* 0.5349	
	* 2.2185	* 2.2456	* 2.4069	* 2.7740	* 2.5491	* 3.5531	* 7.6551	
14	* 1.9440	* 1.9334	* 1.9032	* 1.7238	* 1.0364	* 0.5348		
	* 2.0887	* 2.1116	* 2.2098	* 2.5776	* 4.0172	* 7.6567		
15	* 0.9002	* 0.8936	* 0.8501	* 0.7100	F-SUB-Q			
	* 4.0586	* 4.1057	* 4.3774	* 5.4824	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 13 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.6604	* 1.5215	* 1.5093	* 1.5286	* 1.8268	* 1.7922	* 1.8995	* 0.8754
	* 2.7929	* 3.0368	* 3.0387	* 2.8922	* 2.3911	* 2.3945	* 2.2490	* 4.3767
9	* 1.5215	* 1.7669	* 1.7587	* 1.7523	* 1.6241	* 1.7820	* 1.8891	* 0.8702
	* 3.0368	* 2.6173	* 2.6100	* 2.5345	* 2.7072	* 2.4237	* 2.2735	* 4.4230
10	* 1.5093	* 1.7591	* 1.4824	* 1.4398	* 1.6818	* 1.7230	* 1.8608	* 0.8261
	* 3.0387	* 2.6095	* 3.1118	* 3.1891	* 2.6855	* 2.5961	* 2.3759	* 4.7178
11	* 1.5286	* 1.7524	* 1.4410	* 1.6887	* 1.3960	* 1.5840	* 1.6856	* 0.6903
	* 2.8922	* 2.5344	* 3.1866	* 2.7648	* 3.3622	* 2.9593	* 2.7702	* 5.9070
12	* 1.8268	* 1.6242	* 1.6821	* 1.3959	* 1.6090	* 1.7428	* 1.0101	
	* 2.3911	* 2.7071	* 2.6850	* 3.3618	* 2.9569	* 2.7261	* 4.3065	
13	* 1.7922	* 1.7823	* 1.7235	* 1.5844	* 1.7430	* 1.1516	* 0.5195	
	* 2.3945	* 2.4233	* 2.5954	* 2.9585	* 2.7259	* 3.8259	* 8.3177	
14	* 1.8995	* 1.8894	* 1.8612	* 1.6860	* 1.0102	* 0.5194		
	* 2.2490	* 2.2733	* 2.3753	* 2.7694	* 4.3051	* 8.3194		
15	* 0.8754	* 0.8696	* 0.8278	* 0.6911	F-SUB-Q			
	* 4.3767	* 4.4241	* 4.7113	* 5.9035	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5923	1.4626	1.4515	1.4710	1.7570	1.7280	1.8289	0.8514
	2.8332	3.0725	2.9427	2.8043	2.3385	2.3783	2.2450	4.3680
9	1.4626	1.6971	1.6918	1.6818	1.5633	1.7178	1.8190	0.8465
	3.0725	2.6278	2.5270	2.4641	2.6386	2.4133	2.2735	4.4094
10	1.4515	1.6922	1.4253	1.3858	1.6155	1.6621	1.7941	0.8075
	2.9427	2.5264	3.0161	3.0880	2.6571	2.6045	2.4002	4.7301
11	1.4710	1.6819	1.3869	1.6239	1.3443	1.5263	1.6251	0.6755
	2.8044	2.4640	3.0855	2.7925	3.4036	2.9951	2.8146	5.9924
12	1.7570	1.5633	1.6158	1.3442	1.5510	1.6792	0.9874	
	2.3385	2.6386	2.6566	3.4032	2.9949	2.7632	4.2996	
13	1.7280	1.7181	1.6625	1.5267	1.6793	1.1215	0.5069	
	2.3783	2.4128	2.6039	2.9943	2.7630	3.8374	8.3235	
14	1.8289	1.8192	1.7946	1.6256	0.9874	0.5067		
	2.2451	2.2732	2.3996	2.8137	4.2985	8.3253		
15	0.8514	0.8460	0.8091	0.6763	F-SUB-Q			
	4.3680	4.4100	4.7241	5.9887	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5645	1.4267	1.4165	1.4362	1.7257	1.6949	1.8041	0.8210
	2.6898	2.9341	2.8282	2.6986	2.2390	2.2801	2.1407	4.2607
9	1.4267	1.6647	1.6560	1.6544	1.5279	1.6854	1.7946	0.8171
	2.9341	2.5095	2.4224	2.3542	2.5402	2.3133	2.1675	4.3127
10	1.4165	1.6565	1.3902	1.3511	1.5898	1.6320	1.7703	0.7766
	2.8282	2.4217	2.8999	2.9732	2.5378	2.4956	2.2885	4.6269
11	1.4362	1.6545	1.3524	1.5941	1.3134	1.5062	1.6036	0.6482
	2.6986	2.3541	2.9706	2.6561	3.2448	2.8347	2.6644	5.8709
12	1.7258	1.5279	1.5901	1.3134	1.5235	1.6553	0.9497	
	2.2390	2.5401	2.5373	3.2444	2.8574	2.6178	4.1398	
13	1.6949	1.6857	1.6325	1.5067	1.6554	1.0830	0.4856	
	2.2801	2.3128	2.4950	2.8340	2.6176	3.6888	7.9766	
14	1.8041	1.7948	1.7707	1.6041	0.9498	0.4855		
	2.1407	2.1673	2.2879	2.6636	4.1386	7.9783		
15	0.8210	0.8165	0.7782	0.6489	F-SUB-Q			
	4.2607	4.3136	4.6206	5.8671	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.5186	1.3808	1.3713	1.3913	1.6766	1.6469	1.7578	0.7929
	2.4637	2.6969	2.6353	2.5242	2.0996	2.1471	2.0088	3.9974
9	1.3808	1.6153	1.6057	1.6075	1.4805	1.6377	1.7486	0.7894
	2.6969	2.3127	2.2581	2.1963	2.3853	2.1755	2.0321	4.0422
10	1.3713	1.6063	1.3454	1.3080	1.5452	1.5870	1.7263	0.7502
	2.6353	2.2575	2.6992	2.7667	2.3658	2.3338	2.1363	4.3230
11	1.3913	1.6076	1.3093	1.5483	1.2729	1.4687	1.5639	0.6259
	2.5242	2.1962	2.7642	2.4354	2.9791	2.5942	2.4382	5.4498
12	1.6766	1.4806	1.5455	1.2728	1.4824	1.6128	0.9178	
	2.0996	2.3853	2.3653	2.9788	2.6199	2.3954	3.8196	
13	1.6469	1.6380	1.5874	1.4691	1.6129	1.0475	0.4676	
	2.1471	2.1751	2.3332	2.5935	2.3953	3.4022	7.3948	
14	1.7578	1.7488	1.7268	1.5644	0.9179	0.4675		
	2.0088	2.0319	2.1358	2.4375	3.8185	7.3965		
15	0.7929	0.7888	0.7517	0.6266	F-SUB-Q			
	3.9974	4.0435	4.3170	5.4464	M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.4662	1.3316	1.3230	1.3426	1.6206	1.5924	1.7015	0.7669
	2.2770	2.4903	2.3987	2.3025	1.9146	1.9595	1.8318	3.6557
9	1.3316	1.5601	1.5509	1.5528	1.4292	1.5836	1.6928	0.7639
	2.4903	2.1119	2.0531	2.0016	2.1771	1.9846	1.8525	3.6927
10	1.3230	1.5514	1.2974	1.2618	1.4933	1.5355	1.6724	0.7273
	2.3987	2.0525	2.4569	2.5190	2.1553	2.1245	1.9424	3.9383
11	1.3426	1.5529	1.2630	1.4971	1.2292	1.4224	1.5152	0.6065
	2.3025	2.0015	2.5166	2.2401	2.7644	2.4000	2.2526	4.9554
12	1.6206	1.4292	1.4936	1.2291	1.4347	1.5617	0.8904	
	1.9146	2.1771	2.1549	2.7641	2.4354	2.2246	3.5440	
13	1.5924	1.5839	1.5359	1.4228	1.5618	1.0145	0.4525	
	1.9595	1.9842	2.1240	2.3994	2.2244	3.1585	6.8835	
14	1.7015	1.6930	1.6728	1.5156	0.8905	0.4524		
	1.8318	1.8523	1.9419	2.2519	3.5430	6.8851		
15	0.7669	0.7634	0.7288	0.6072	F-SUB-Q			
	3.6557	3.6935	3.9329	4.9522	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the data set.

AT 50% POWER, 4 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the data set.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.3314	* 1.2017	* 1.1950	* 1.2132	* 1.4729	* 1.4460	* 1.5530	* 0.6872
	* 1.9408	* 2.1401	* 2.0703	* 2.0068	* 1.6659	* 1.7099	* 1.5919	* 3.2594
9	* 1.2017	* 1.4158	* 1.4063	* 1.4123	* 1.2920	* 1.4381	* 1.5453	* 0.6852
	* 2.1401	* 1.7973	* 1.7648	* 1.7329	* 1.9007	* 1.7277	* 1.6069	* 3.2811
10	* 1.1950	* 1.4069	* 1.1713	* 1.1396	* 1.3588	* 1.3964	* 1.5284	* 0.6526
	* 2.0703	* 1.7640	* 2.1182	* 2.1762	* 1.8563	* 1.8293	* 1.6659	* 3.4769
11	* 1.2132	* 1.4124	* 1.1409	* 1.3619	* 1.1122	* 1.2992	* 1.3840	* 0.5432
	* 2.0068	* 1.7328	* 2.1739	* 1.9044	* 2.3782	* 2.0395	* 1.9082	* 4.3241
12	* 1.4729	* 1.2921	* 1.3590	* 1.1122	* 1.3080	* 1.4268	* 0.7997	
	* 1.6659	* 1.9007	* 1.8560	* 2.3780	* 2.0770	* 1.8976	* 3.0848	
13	* 1.4460	* 1.4385	* 1.3968	* 1.2996	* 1.4269	* 0.9139	* 0.4041	
	* 1.7099	* 1.7273	* 1.8289	* 2.0389	* 1.8975	* 2.7425	* 6.0607	
14	* 1.5530	* 1.5455	* 1.5288	* 1.3844	* 0.7998	* 0.4040		
	* 1.5919	* 1.6067	* 1.6654	* 1.9077	* 3.0840	* 6.0622		
15	* 0.6872	* 0.6847	* 0.6540	* 0.5438	* F-SUB-Q			
	* 3.2594	* 3.2824	* 3.4719	* 4.3212	* M-SUB-Q			

AT 50% POWER, 4 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.2601	* 1.1464	* 1.1405	* 1.1573	* 1.3970	* 1.3774	* 1.4695	* 0.6645
	* 1.8920	* 2.0325	* 1.9918	* 1.9411	* 1.6227	* 1.6591	* 1.5556	* 3.1256
9	* 1.1464	* 1.3420	* 1.3401	* 1.3368	* 1.2332	* 1.3701	* 1.4623	* 0.6624
	* 2.0325	* 1.7284	* 1.7007	* 1.6890	* 1.8379	* 1.6747	* 1.5690	* 3.1430
10	* 1.1405	* 1.3407	* 1.1182	* 1.0892	* 1.2880	* 1.3305	* 1.4472	* 0.6347
	* 1.9918	* 1.6999	* 2.0360	* 2.0913	* 1.8002	* 1.7635	* 1.6173	* 3.3030
11	* 1.1573	* 1.3369	* 1.0903	* 1.2940	* 1.0633	* 1.2295	* 1.3098	* 0.5290
	* 1.9411	* 1.6888	* 2.0892	* 1.8336	* 2.2826	* 1.9614	* 1.8381	* 4.0750
12	* 1.3970	* 1.2332	* 1.2882	* 1.0633	* 1.2466	* 1.3526	* 0.7779	
	* 1.6227	* 1.8379	* 1.7998	* 2.2823	* 1.9900	* 1.8317	* 2.9184	
13	* 1.3774	* 1.3704	* 1.3308	* 1.2298	* 1.3526	* 0.8855	* 0.3940	
	* 1.6591	* 1.6743	* 1.7631	* 1.9608	* 1.8316	* 2.5860	* 5.6983	
14	* 1.4695	* 1.4625	* 1.4476	* 1.3101	* 0.7779	* 0.3938		
	* 1.5556	* 1.5688	* 1.6169	* 1.8375	* 2.9177	* 5.6997		
15	* 0.6645	* 0.6620	* 0.6359	* 0.5296	* F-SUB-Q			
	* 3.1256	* 3.1437	* 3.2987	* 4.0724	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes F-SUB-Q and M-SUB-Q values at the bottom of the table.

AT 50% POWER, 4 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes F-SUB-Q and M-SUB-Q values at the bottom of the table.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 50% POWER, 4 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the data set.

AT 50% POWER, 4 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the data set.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.6139	0.6062	0.5972	0.6474	0.7633	0.6568	0.6739	0.3532
	4.0838	4.7727	4.8219	4.3114	3.6699	4.2678	4.2201	7.1812
9	0.6062	0.7212	0.6455	0.7426	0.6715	0.6428	0.6683	0.3517
	4.7727	4.2077	4.4828	3.8111	4.1677	4.3910	4.2782	7.2232
10	0.5972	0.6456	0.5851	0.6233	0.7244	0.6292	0.6379	0.3307
	4.8220	4.4820	5.0218	4.5996	4.0083	4.6179	4.5408	7.6985
11	0.6474	0.7427	0.6235	0.6886	0.6001	0.6667	0.5835	0.2771
	4.3114	3.8108	4.5986	4.3404	4.9452	4.4604	5.1667	9.4684
12	0.7633	0.6715	0.7245	0.6001	0.5375	0.5657	0.3970	
	3.6699	4.1675	4.0077	4.9448	5.0239	4.8902	6.6596	
13	0.6568	0.6428	0.6294	0.6668	0.5657	0.3935	0.2050	
	4.2678	4.3907	4.6171	4.4598	4.8900	6.2351	12.1938	
14	0.6739	0.6683	0.6381	0.5837	0.3971	0.2050		
	4.2201	4.2778	4.5398	5.1654	6.6577	12.1956		
15	0.3532	0.3516	0.3311	0.2774	F-SUB-Q			
	7.1812	7.2218	7.6938	9.4651	M-SUB-Q			

AT 30% POWER, 4 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7232	1.4340	1.3751	1.4703	1.9086	1.6313	1.8120	0.8615
	1.7591	2.1886	2.2255	2.0210	1.5652	1.8373	1.6743	3.1319
9	1.4340	1.8238	1.6122	1.8633	1.5625	1.6134	1.7979	0.8576
	2.1886	1.7615	1.9093	1.6152	1.9086	1.8750	1.6853	3.1413
10	1.3751	1.6123	1.3523	1.4038	1.8062	1.5573	1.7273	0.8028
	2.2255	1.9091	2.3042	2.1732	1.7113	1.9847	1.7847	3.3584
11	1.4703	1.8634	1.4042	1.7862	1.3590	1.6868	1.5553	0.6610
	2.0210	1.6151	2.1727	1.7831	2.3105	1.8731	2.0480	4.2095
12	1.9086	1.5626	1.8064	1.3591	1.3889	1.5705	0.9819	
	1.5652	1.9085	1.7111	2.3103	2.1087	1.9221	2.8641	
13	1.6313	1.6136	1.5576	1.6870	1.5706	1.0398	0.4866	
	1.8373	1.8748	1.9843	1.8729	1.9220	2.5969	5.4632	
14	1.8120	1.7981	1.7277	1.5557	0.9820	0.4865		
	1.6743	1.6851	1.7843	2.0476	2.8633	5.4642		
15	0.8615	0.8574	0.8038	0.6616	F-SUB-Q			
	3.1319	3.1410	3.3566	4.2078	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are presented in a grid format with asterisks separating the columns. Row 15 includes F-SUB-Q and M-SUB-Q values.

AT 30% POWER, 4 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are presented in a grid format with asterisks separating the columns. Row 15 includes F-SUB-Q and M-SUB-Q values.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the data block.

AT 30% POWER, 4 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the data block.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.9106	* 1.7765	* 1.7595	* 1.7839	* 2.1224	* 2.0979	* 2.1968	* 1.0285 *
	* 1.9725	* 2.1252	* 2.0313	* 1.9411	* 1.6272	* 1.6429	* 1.5652	* 2.9915 *
9	* 1.7765	* 2.0443	* 2.0456	* 2.0219	* 1.9037	* 2.0834	* 2.1834	* 1.0187 *
	* 2.1252	* 1.8196	* 1.7501	* 1.7203	* 1.8172	* 1.6632	* 1.5827	* 3.0298 *
10	* 1.7595	* 2.0456	* 1.7331	* 1.6790	* 1.9451	* 2.0031	* 2.1386	* 0.9645 *
	* 2.0313	* 1.7501	* 2.0694	* 2.1199	* 1.8305	* 1.7827	* 1.6609	* 3.2400 *
11	* 1.7839	* 2.0220	* 1.6801	* 1.9470	* 1.6214	* 1.8088	* 1.9242	* 0.8037 *
	* 1.9411	* 1.7202	* 2.1186	* 1.9178	* 2.2775	* 2.0460	* 1.9353	* 4.0486 *
12	* 2.1224	* 1.9038	* 1.9454	* 1.6214	* 1.8574	* 1.9916	* 1.1729	*
	* 1.6272	* 1.8171	* 1.8302	* 2.2775	* 1.9608	* 1.8372	* 2.8762	*
13	* 2.0979	* 2.0837	* 2.0037	* 1.8093	* 1.9918	* 1.3411	* 0.6058	*
	* 1.6429	* 1.6629	* 1.7822	* 2.0459	* 1.8371	* 2.4866	* 5.3489	*
14	* 2.1968	* 2.1836	* 2.1392	* 1.9248	* 1.1731	* 0.6056	*	*
	* 1.5652	* 1.5826	* 1.6604	* 1.9347	* 2.8754	* 5.3499	*	*
15	* 1.0285	* 1.0182	* 0.9664	* 0.8046	* F-SUB-Q			
	* 2.9915	* 3.0300	* 3.2358	* 4.0462	* M-SUB-Q			

AT 30% POWER, 4 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	* 1.8703	* 1.7324	* 1.7164	* 1.7420	* 2.0801	* 2.0560	* 2.1599	* 1.0045 *
	* 2.1052	* 2.2794	* 2.1992	* 2.0977	* 1.7478	* 1.7602	* 1.6713	* 3.2159 *
9	* 1.7324	* 1.9998	* 1.9991	* 1.9811	* 1.8602	* 2.0422	* 2.1470	* 0.9958 *
	* 2.2794	* 1.9630	* 1.8902	* 1.8520	* 1.9590	* 1.7823	* 1.6902	* 3.2563 *
10	* 1.7164	* 1.9992	* 1.6893	* 1.6379	* 1.9068	* 1.9650	* 2.1055	* 0.9431 *
	* 2.1992	* 1.8902	* 2.2422	* 2.2949	* 1.9666	* 1.9111	* 1.7729	* 3.4836 *
11	* 1.7420	* 1.9812	* 1.6391	* 1.9073	* 1.5849	* 1.7814	* 1.8961	* 0.7859 *
	* 2.0977	* 1.8519	* 2.2934	* 2.0397	* 2.4209	* 2.1705	* 2.0480	* 4.3577 *
12	* 2.0801	* 1.8603	* 1.9072	* 1.5849	* 1.8214	* 1.9590	* 1.1486	*
	* 1.7478	* 1.9589	* 1.9663	* 2.4209	* 2.0925	* 1.9519	* 3.0552	*
13	* 2.0560	* 2.0425	* 1.9656	* 1.7819	* 1.9591	* 1.3118	* 0.5903	*
	* 1.7602	* 1.7821	* 1.9106	* 2.1703	* 1.9518	* 2.6693	* 5.7555	*
14	* 2.1599	* 2.1472	* 2.1061	* 1.8967	* 1.1487	* 0.5901	*	*
	* 1.6713	* 1.6900	* 1.7724	* 2.0474	* 3.0544	* 5.7566	*	*
15	* 1.0045	* 0.9953	* 0.9450	* 0.7868	* F-SUB-Q			
	* 3.2159	* 3.2565	* 3.4790	* 4.3550	* M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 16 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.8299	1.6874	1.6722	1.6987	2.0370	2.0115	2.1207	0.9767
	2.2864	2.4609	2.4151	2.2992	1.9026	1.9133	1.8094	3.5154
9	1.6874	1.9552	1.9516	1.9404	1.8151	1.9981	2.1081	0.9686
	2.4609	2.1218	2.0704	2.0197	2.1412	1.9374	1.8299	3.5610
10	1.6722	1.9517	1.6452	1.5962	1.8689	1.9238	2.0693	0.9168
	2.4151	2.0703	2.4636	2.5193	2.1392	2.0774	1.9186	3.8106
11	1.6987	1.9404	1.5974	1.8673	1.5469	1.7513	1.8641	0.7637
	2.2992	2.0196	2.5176	2.2022	2.6231	2.3300	2.1857	4.7631
12	2.0370	1.8152	1.8692	1.5469	1.7831	1.9242	1.1161	
	1.9026	2.1411	2.1388	2.6231	2.2597	2.0973	3.3136	
13	2.0115	1.9984	1.9244	1.7518	1.9243	1.2764	0.5722	
	1.9133	1.9371	2.0768	2.3294	2.0972	2.8946	6.2463	
14	2.1207	2.1084	2.0698	1.8647	1.1162	0.5721		
	1.8094	1.8297	1.9181	2.1850	3.3127	6.2475		
15	0.9767	0.9681	0.9187	0.7645				F-SUB-Q
	3.5154	3.5616	3.8053	4.7603				M-SUB-Q

AT 30% POWER, 4 EFPD, THIS IS LEVEL 15 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.7466	1.6153	1.6018	1.6281	1.9499	1.9301	2.0312	0.9489
	2.5418	2.7385	2.6735	2.5229	2.0879	2.0986	1.9900	3.7955
9	1.6153	1.8690	1.8692	1.8535	1.7406	1.9173	2.0194	0.9415
	2.7385	2.3675	2.2951	2.2246	2.3425	2.1227	2.0104	3.8297
10	1.6018	1.8694	1.5753	1.5297	1.7863	1.8477	1.9850	0.8962
	2.6735	2.2948	2.7323	2.7760	2.3479	2.2685	2.0965	4.0638
11	1.6281	1.8536	1.5309	1.7878	1.4843	1.6794	1.7890	0.7475
	2.5229	2.2245	2.7740	2.4415	2.9239	2.5687	2.4090	5.0582
12	1.9499	1.7407	1.7867	1.4843	1.7117	1.8451	1.0916	
	2.0879	2.3424	2.3475	2.9239	2.5210	2.3413	3.6174	
13	1.9301	1.9176	1.8482	1.6799	1.8452	1.2420	0.5587	
	2.0986	2.1224	2.2679	2.5680	2.3412	3.1858	6.8339	
14	2.0312	2.0196	1.9855	1.7896	1.0917	0.5586		
	1.9900	2.0102	2.0959	2.4083	3.6164	6.8352		
15	0.9489	0.9411	0.8980	0.7483				F-SUB-Q
	3.7955	3.8300	4.0587	5.0552				M-SUB-Q

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are presented in pairs for each column, separated by asterisks. Row 15 includes F-SUB-Q and M-SUB-Q values.

AT 30% POWER, 4 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are presented in pairs for each column, separated by asterisks. Row 15 includes F-SUB-Q and M-SUB-Q values.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values range from approximately 0.8413 to 5.9924. Includes F-SUB-Q and M-SUB-Q values at the bottom of the table.

AT 30% POWER, 4 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values range from approximately 0.6350 to 5.8671. Includes F-SUB-Q and M-SUB-Q values at the bottom of the table.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the data rows.

AT 30% POWER, 4 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of numerical data. Includes labels F-SUB-Q and M-SUB-Q at the bottom of the data rows.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are presented in two columns per cell, separated by asterisks. Includes labels for F-SUB-Q and M-SUB-Q at the bottom of the table.

AT 30% POWER, 4 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are presented in two columns per cell, separated by asterisks. Includes labels for F-SUB-Q and M-SUB-Q at the bottom of the table.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 6 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are numerical and include asterisks. Row 15 includes 'F-SUB-Q' and 'M-SUB-Q' labels.

AT 30% POWER, 4 EFPD, THIS IS LEVEL 5 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

Table with 8 columns (H, G, F, E, D, C, B, A) and 15 rows of data. Values are numerical and include asterisks. Row 15 includes 'F-SUB-Q' and 'M-SUB-Q' labels.

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 4 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.1082	1.0059	0.9994	1.0197	1.2345	1.2238	1.3039	0.5799
	1.7763	1.9396	1.9184	1.8751	1.5757	1.6076	1.5112	3.0753
9	1.0059	1.1751	1.1786	1.1805	1.0914	1.2170	1.2973	0.5777
	1.9396	1.6589	1.6377	1.6310	1.7756	1.6205	1.5230	3.0905
10	0.9994	1.1791	0.9810	0.9570	1.1430	1.1819	1.2817	0.5509
	1.9184	1.6369	1.9591	2.0131	1.7282	1.6945	1.5631	3.2521
11	1.0197	1.1806	0.9581	1.1419	0.9391	1.0884	1.1575	0.4559
	1.8751	1.6308	2.0111	1.7490	2.1538	1.8795	1.7638	4.0018
12	1.2345	1.0915	1.1432	0.9391	1.1007	1.1929	0.6730	
	1.5757	1.7756	1.7279	2.1535	1.9051	1.7574	2.8249	
13	1.2238	1.2172	1.1822	1.0887	1.1930	0.7685	0.3377	
	1.6076	1.6201	1.6942	1.8789	1.7573	2.5328	5.5896	
14	1.3039	1.2975	1.2820	1.1578	0.6730	0.3376		
	1.5112	1.5228	1.5627	1.7632	2.8242	5.5910		
15	0.5799	0.5773	0.5521	0.4564	F-SUB-Q			
	3.0753	3.0917	3.2475	3.9991	M-SUB-Q			

AT 30% POWER, 4 EFPD, THIS IS LEVEL 3 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0338	0.9400	0.9198	0.9535	1.1415	1.1261	1.1926	0.5464
	1.7707	1.9368	1.9533	1.8836	1.5995	1.6419	1.5526	3.0779
9	0.9400	1.0867	1.0846	1.0949	1.0148	1.1194	1.1865	0.5444
	1.9368	1.6712	1.6661	1.6512	1.7894	1.6545	1.5645	3.0912
10	0.9198	1.0851	0.9015	0.9002	1.0576	1.0919	1.1739	0.5174
	1.9533	1.6653	1.9969	2.0164	1.7484	1.7155	1.5969	3.2576
11	0.9535	1.0950	0.9009	1.0686	0.8824	1.0108	1.0698	0.4256
	1.8836	1.6510	2.0151	1.7502	2.1217	1.8780	1.7747	4.0136
12	1.1415	1.0148	1.0578	0.8825	1.0173	1.0973	0.6355	
	1.5995	1.7895	1.7481	2.1215	1.8928	1.7590	2.7769	
13	1.1261	1.1197	1.0921	1.0110	1.0974	0.7107	0.3133	
	1.6419	1.6541	1.7151	1.8775	1.7589	2.5181	5.5719	
14	1.1926	1.1866	1.1742	1.0701	0.6355	0.3132		
	1.5526	1.5643	1.5965	1.7742	2.7763	5.5733		
15	0.5464	0.5440	0.5184	0.4261	F-SUB-Q			
	3.0779	3.0923	3.2535	4.0110	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-4 (CONTINUED)

F-SUB-Q & M-SUB-Q VALUES (F-SUB-Q OP MARGIN) - POWER ESCALATION

AT 30% POWER, 4 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	1.0232	0.7940	0.7404	0.7993	1.0864	0.9116	1.0665	0.4656
	1.6790	2.1566	2.3035	2.1381	1.5924	1.9275	1.6504	3.4489
9	0.7940	1.0324	0.8900	1.0547	0.8541	0.9057	1.0601	0.4671
	2.1566	1.6615	1.9262	1.6287	2.0150	1.9436	1.6635	3.4391
10	0.7404	0.8904	0.7229	0.7641	1.0309	0.8888	1.0310	0.4411
	2.3035	1.9252	2.3656	2.2524	1.6992	1.9977	1.7247	3.6418
11	0.7993	1.0549	0.7646	1.0277	0.7567	0.9969	0.9356	0.3596
	2.1381	1.6285	2.2510	1.7142	2.3395	1.7970	1.9226	4.5165
12	1.0864	0.8541	1.0311	0.7568	0.8343	0.9551	0.5544	
	1.5924	2.0151	1.6988	2.3392	2.1786	1.9071	3.0166	
13	0.9116	0.9059	0.8890	0.9971	0.9552	0.5890	0.2590	
	1.9275	1.9432	1.9973	1.7967	1.9070	2.8693	6.3856	
14	1.0665	1.0602	1.0313	0.9358	0.5545	0.2590		
	1.6504	1.6633	1.7243	1.9221	3.0160	6.3871		
15	0.4656	0.4668	0.4416	0.3600	F-SUB-Q			
	3.4489	3.4399	3.6403	4.5139	M-SUB-Q			

AT 30% POWER, 4 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8	0.3900	0.3322	0.3110	0.3403	0.4063	0.3451	0.3696	0.1897
	4.1471	4.8780	5.2098	4.7771	4.0174	4.7774	4.5006	8.0535
9	0.3322	0.3858	0.3400	0.3929	0.3525	0.3412	0.3671	0.1896
	4.8780	4.1935	4.7716	4.1371	4.6360	4.8773	4.5386	8.0582
10	0.3110	0.3401	0.3032	0.3293	0.3886	0.3358	0.3549	0.1809
	5.2098	4.7694	5.3569	4.9814	4.2563	4.9681	4.7303	8.4386
11	0.3403	0.3929	0.3294	0.3740	0.3247	0.3711	0.3249	0.1508
	4.7770	4.1364	4.9795	4.4399	5.1623	4.5531	5.2227	10.2358
12	0.4063	0.3525	0.3886	0.3247	0.3138	0.3323	0.2240	
	4.0174	4.6360	4.2554	5.1617	5.4716	5.1749	7.0570	
13	0.3451	0.3413	0.3359	0.3712	0.3323	0.2312	0.1110	
	4.7774	4.8764	4.9673	4.5524	5.1745	6.9136	14.1856	
14	0.3696	0.3672	0.3550	0.3249	0.2240	0.1110		
	4.5006	4.5381	4.7293	5.2215	7.0552	14.1879		
15	0.1897	0.1895	0.1811	0.1509	F-SUB-Q			
	8.0534	8.0577	8.4389	10.2323	M-SUB-Q			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 24 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	3.1365	3.8935	4.1841	3.9626	3.2429	4.0113	3.6351	6.4421
9*	3.8935	3.2495	3.9735	3.2654	3.8538	4.0905	3.6480	6.4285
10*	4.1841	3.9728	4.2735	4.0320	3.2640	4.0390	3.7419	6.6954
11*	3.9626	3.2652	4.0314	3.3661	4.0429	3.3977	3.9183	7.7210
12*	3.2429	3.8536	3.2637	4.0426	4.1584	3.7160	5.3220	
13*	4.0113	4.0904	4.0386	3.3974	3.7158	5.0332	9.4649	
14*	3.6351	3.6477	3.7413	3.9176	5.3204	9.4663		
15 *	6.4421	6.4273	6.6921	7.7195				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 23 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	1.4009	1.8591	2.0062	1.9204	1.4303	1.8005	1.4908	2.8734
9*	1.8591	1.4256	1.7668	1.4352	1.8288	1.8279	1.4949	2.8649
10*	2.0062	1.7667	2.0421	1.9597	1.4461	1.8198	1.5237	3.0005
11*	1.9204	1.4352	1.9593	1.4349	1.9632	1.4791	1.6014	3.5070
12*	1.4303	1.8287	1.4460	1.9630	1.8315	1.5189	2.3662	
13*	1.8005	1.8278	1.8196	1.4790	1.5188	2.1767	4.3371	
14*	1.4908	1.4948	1.5235	1.6011	2.3655	4.3379		
15 *	2.8734	2.8645	2.9993	3.5061				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 22 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.4758	1.6646	1.7185	1.6986	1.4371	1.5638	1.4041	2.5302
9*	1.6646	1.4364	1.5413	1.4570	1.6270	1.5724	1.4085	2.5425
10*	1.7185	1.5413	1.7410	1.7510	1.5077	1.5993	1.4082	2.6365
11*	1.6986	1.4570	1.7507	1.4493	1.7524	1.5302	1.4856	3.0626
12*	1.4371	1.6269	1.5075	1.7524	1.5832	1.3916	2.1202	
13*	1.5638	1.5724	1.5991	1.5302	1.3916	1.8877	3.7074	
14*	1.4041	1.4085	1.4080	1.4854	2.1196	3.7081		
15 *	2.5302	2.5423	2.6343	3.0617				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 21 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.4082	1.6062	1.6321	1.6321	1.3559	1.4752	1.3025	2.4857
9*	1.6062	1.3585	1.4536	1.3791	1.5562	1.4764	1.3066	2.4965
10*	1.6321	1.4536	1.6507	1.6880	1.4216	1.5045	1.3083	2.5974
11*	1.6321	1.3791	1.6873	1.3709	1.6836	1.4402	1.3958	3.0127
12*	1.3559	1.5561	1.4214	1.6835	1.4941	1.2976	2.0903	
13*	1.4752	1.4763	1.5043	1.4401	1.2975	1.8167	3.6479	
14*	1.3025	1.3066	1.3080	1.3955	2.0897	3.6486		
15 *	2.4857	2.4966	2.5945	3.0114				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 20 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	1.4121	1.6244	1.6482	1.6454	1.3459	1.4685	1.2848	2.5086
9*	1.6244	1.3538	1.4575	1.3742	1.5647	1.4706	1.2889	2.5164
10*	1.6482	1.4575	1.6672	1.7075	1.4192	1.5000	1.2892	2.6152
11*	1.6454	1.3742	1.7067	1.3701	1.7008	1.4315	1.3783	3.0368
12*	1.3459	1.5646	1.4191	1.7008	1.4939	1.2835	2.0957	
13*	1.4685	1.4705	1.4997	1.4315	1.2834	1.8200	3.7054	
14*	1.2848	1.2888	1.2890	1.3780	2.0951	3.7061		
15 *	2.5086	2.5166	2.6122	3.0355				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 19 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	1.4567	1.6830	1.7066	1.6983	1.3763	1.4997	1.3065	2.5721
9*	1.6830	1.3921	1.5021	1.4117	1.6111	1.5028	1.3108	2.5795
10*	1.7066	1.5020	1.7272	1.7670	1.4561	1.5322	1.3087	2.6741
11*	1.6983	1.4117	1.7662	1.4077	1.7555	1.4622	1.4005	3.1089
12*	1.3763	1.6110	1.4559	1.7555	1.5299	1.3077	2.1404	
13*	1.4997	1.5026	1.5318	1.4621	1.3077	1.8625	3.8240	
14*	1.3065	1.3107	1.3085	1.4002	2.1398	3.8247		
15 *	2.5721	2.5797	2.6711	3.1076				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 18 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.5108	1.7568	1.7796	1.7652	1.4167	1.5410	1.3353	2.6808
9*	1.7568	1.4427	1.5579	1.4601	1.6683	1.5442	1.3393	2.6859
10*	1.7796	1.5579	1.8013	1.8413	1.4991	1.5737	1.3364	2.7888
11*	1.7652	1.4601	1.8403	1.4519	1.8234	1.5032	1.4322	3.2493
12*	1.4167	1.6682	1.4989	1.8235	1.5750	1.3420	2.2334	
13*	1.5410	1.5441	1.5733	1.5031	1.3419	1.9431	4.0306	
14*	1.3353	1.3392	1.3361	1.4319	2.2328	4.0314		
15 *	2.6808	2.6861	2.7850	3.2478				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 17 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.6021	1.8658	1.8872	1.8647	1.4858	1.6109	1.3917	2.8235
9*	1.8658	1.5249	1.6449	1.5383	1.7567	1.6148	1.3960	2.8285
10*	1.8872	1.6449	1.9093	1.9493	1.5734	1.6454	1.3918	2.9363
11*	1.8647	1.5383	1.9481	1.5294	1.9287	1.5789	1.4940	3.4284
12*	1.4858	1.7566	1.5732	1.9287	1.6563	1.4078	2.3576	
13*	1.6109	1.6146	1.6450	1.5788	1.4077	2.0566	4.2918	
14*	1.3917	1.3958	1.3915	1.4936	2.3570	4.2927		
15 *	2.8235	2.8288	2.9322	3.4269				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 16 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.7035	1.9839	2.0019	1.9697	1.5609	1.6910	1.4555	2.9777
9*	1.9839	1.6146	1.7392	1.6182	1.8524	1.6962	1.4608	2.9833
10*	2.0019	1.7391	2.0250	2.0662	1.6566	1.7308	1.4586	3.1064
11*	1.9697	1.6182	2.0648	1.6211	2.0543	1.6723	1.5690	3.6455
12*	1.5609	1.8524	1.6564	2.0544	1.7637	1.4912	2.5185	
13*	1.6910	1.6959	1.7304	1.6722	1.4911	2.2044	4.6112	
14*	1.4555	1.4606	1.4583	1.5686	2.5178	4.6122		
15 *	2.9777	2.9838	3.1020	3.6438				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 15 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.8382	2.1377	2.1586	2.1170	1.6751	1.8055	1.5566	3.1389
9*	2.1377	1.7443	1.8722	1.7451	1.9872	1.8111	1.5618	3.1477
10*	2.1586	1.8720	2.1832	2.2233	1.7804	1.8488	1.5594	3.2670
11*	2.1170	1.7451	2.2219	1.7541	2.2160	1.8064	1.6811	3.8275
12*	1.6751	1.9872	1.7802	2.2161	1.9056	1.6114	2.6619	
13*	1.8055	1.8108	1.8485	1.8064	1.6114	2.3527	4.8974	
14*	1.5566	1.5617	1.5590	1.6807	2.6612	4.8984		
15 *	3.1389	3.1481	3.2633	3.8258				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 14 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.9096	2.2337	2.2517	2.2178	1.7491	1.8846	1.6151	3.3350
9*	2.2337	1.8125	1.9590	1.8163	2.0862	1.8913	1.6212	3.3406
10*	2.2517	1.9588	2.2795	2.3244	1.8595	1.9357	1.6245	3.4807
11*	2.2178	1.8163	2.3229	1.8464	2.3546	1.8999	1.7578	4.1055
12*	1.7491	2.0862	1.8592	2.3547	2.0092	1.6927	2.8675	
13*	1.8846	1.8911	1.9353	1.8998	1.6927	2.5277	5.2882	
14*	1.6151	1.6211	1.6241	1.7574	2.8667	5.2893		
15 *	3.3350	3.3413	3.4757	4.1035				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 13 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.9796	2.3154	2.3345	2.3070	1.8363	1.9956	1.7065	3.5286
9*	2.3154	1.8842	2.0336	1.8903	2.1900	2.0032	1.7131	3.5350
10*	2.3345	2.0332	2.3737	2.4336	1.9614	2.0510	1.7161	3.6868
11*	2.3070	1.8903	2.4320	1.9332	2.4732	2.0071	1.8546	4.3391
12*	1.8363	2.1900	1.9612	2.4733	2.1359	1.7964	3.0318	
13*	1.9956	2.0029	2.0505	2.0067	1.7963	2.6937	5.5664	
14*	1.7065	1.7129	1.7157	1.8541	3.0309	5.5676		
15 *	3.5286	3.5358	3.6823	4.3372				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 12 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.9488	2.2728	2.2900	2.2729	1.8190	1.9841	1.7051	3.5163
9*	2.2728	1.8501	2.0035	1.8692	2.1697	1.9968	1.7157	3.5301
10*	2.2900	2.0029	2.3293	2.3858	1.9550	2.0577	1.7350	3.6852
11*	2.2729	1.8691	2.3842	1.9311	2.4971	2.0380	1.8933	4.3818
12*	1.8190	2.1697	1.9547	2.4969	2.2055	1.8499	3.0780	
13*	1.9841	1.9965	2.0572	2.0375	1.8498	2.7534	5.7489	
14*	1.7051	1.7155	1.7346	1.8928	3.0771	5.7501		
15 *	3.5163	3.5308	3.6809	4.3797				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 11 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.8707	2.1937	2.2066	2.1852	1.7500	1.9176	1.6388	3.4496
9*	2.1937	1.7755	1.9232	1.7846	2.0931	1.9285	1.6481	3.4580
10*	2.2066	1.9226	2.2451	2.3012	1.8755	1.9901	1.6694	3.6141
11*	2.1852	1.7845	2.2995	1.8517	2.4151	1.9665	1.8268	4.3036
12*	1.7500	2.0930	1.8752	2.4149	2.1416	1.7894	3.0233	
13*	1.9176	1.9282	1.9897	1.9660	1.7893	2.7038	5.6589	
14*	1.6388	1.6479	1.6690	1.8264	3.0225	5.6602		
15 *	3.4496	3.4589	3.6096	4.3015				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 10 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.7648	2.0747	2.0872	2.0697	1.6492	1.8056	1.5382	3.2496
9*	2.0747	1.6769	1.8204	1.6863	1.9779	1.8142	1.5459	3.2535
10*	2.0872	1.8198	2.1240	2.1755	1.7630	1.8642	1.5597	3.3981
11*	2.0697	1.6862	2.1738	1.7437	2.2767	1.8272	1.6960	4.0421
12*	1.6492	1.9778	1.7628	2.2765	1.9966	1.6613	2.8351	
13*	1.8056	1.8139	1.8638	1.8268	1.6612	2.5295	5.3392	
14*	1.5382	1.5457	1.5593	1.6956	2.8343	5.3404		
15 *	3.2496	3.2545	3.3928	4.0400				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 9 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.6682	1.9637	1.9752	1.9588	1.5553	1.7006	1.4471	3.0726
9*	1.9637	1.5829	1.7185	1.5933	1.8694	1.7085	1.4538	3.0740
10*	1.9752	1.7179	2.0110	2.0589	1.6635	1.7531	1.4633	3.2028
11*	1.9588	1.5933	2.0572	1.6459	2.1493	1.7161	1.5908	3.8083
12*	1.5553	1.8694	1.6633	2.1494	1.8728	1.5575	2.6628	
13*	1.7006	1.7082	1.7527	1.7157	1.5575	2.3754	5.0398	
14*	1.4471	1.4536	1.4629	1.5905	2.6621	5.0409		
15 *	3.0726	3.0749	3.1981	3.8063				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 8 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.5995	1.8792	1.8901	1.8740	1.4872	1.6213	1.3814	2.9168
9*	1.8792	1.5144	1.6421	1.5271	1.7876	1.6286	1.3874	2.9168
10*	1.8901	1.6414	1.9255	1.9692	1.5936	1.6694	1.3929	3.0247
11*	1.8740	1.5271	1.9676	1.5765	2.0493	1.6361	1.5144	3.5894
12*	1.4872	1.7875	1.5934	2.0494	1.7757	1.4796	2.5030	
13*	1.6213	1.6283	1.6690	1.6358	1.4795	2.2358	4.7572	
14*	1.3814	1.3872	1.3926	1.5140	2.5024	4.7583		
15 *	2.9168	2.9177	3.0211	3.5876				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 7 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A

8*	1.5014	1.7799	1.7900	1.7746	1.3986	1.5262	1.2926	2.8106
9*	1.7799	1.4252	1.5485	1.4340	1.6906	1.5327	1.2978	2.8072
10*	1.7900	1.5479	1.8247	1.8682	1.4960	1.5694	1.3019	2.9191
11*	1.7746	1.4340	1.8666	1.4807	1.9343	1.5304	1.4159	3.4779
12*	1.3986	1.6906	1.4958	1.9344	1.6559	1.3787	2.4117	
13*	1.5262	1.5324	1.5691	1.5300	1.3786	2.1346	4.6031	
14*	1.2926	1.2977	1.3016	1.4155	2.4111	4.6042		
15 *	2.8106	2.8082	2.9145	3.4759				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 6 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	1.4395	1.7108	1.7209	1.7069	1.3436	1.4635	1.2386	2.7165
9*	1.7108	1.3670	1.4849	1.3764	1.6263	1.4695	1.2432	2.7107
10*	1.7209	1.4842	1.7548	1.7970	1.4367	1.5031	1.2450	2.8170
11*	1.7069	1.3764	1.7953	1.4192	1.8530	1.4654	1.3547	3.3599
12*	1.3436	1.6263	1.4365	1.8531	1.5765	1.3152	2.3200	
13*	1.4635	1.4692	1.5028	1.4650	1.3152	2.0452	4.4357	
14*	1.2386	1.2430	1.2447	1.3544	2.3194	4.4368		
15 *	2.7165	2.7118	2.8124	3.3580				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 5 OF 24
 (LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	1.4206	1.6754	1.6850	1.6711	1.3216	1.4326	1.2202	2.6337
9*	1.6754	1.3455	1.4538	1.3571	1.5905	1.4382	1.2247	2.6273
10*	1.6850	1.4531	1.7177	1.7574	1.4159	1.4707	1.2248	2.7188
11*	1.6711	1.3571	1.7557	1.3965	1.8080	1.4444	1.3346	3.2325
12*	1.3216	1.5905	1.4157	1.8081	1.5394	1.2918	2.2299	
13*	1.4326	1.4379	1.4704	1.4441	1.2917	1.9696	4.2604	
14*	1.2202	1.2245	1.2245	1.3343	2.2294	4.2614		
15 *	2.6337	2.6282	2.7154	3.2307				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 4 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	1.3805	1.6300	1.6412	1.6241	1.2869	1.3914	1.1876	2.6015
9*	1.6300	1.3145	1.4132	1.3179	1.5423	1.3962	1.1918	2.5954
10*	1.6412	1.4124	1.6723	1.7105	1.3711	1.4254	1.1914	2.6934
11*	1.6241	1.3179	1.7088	1.3526	1.7494	1.4036	1.2991	3.2195
12*	1.2869	1.5423	1.3709	1.7495	1.4919	1.2549	2.2110	
13*	1.3914	1.3959	1.4251	1.4033	1.2548	1.9442	4.2357	
14*	1.1876	1.1916	1.1911	1.2988	2.2105	4.2368		
15 *	2.6015	2.5964	2.6893	3.2176				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 3 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	1.3890	1.6353	1.6755	1.6297	1.3001	1.4158	1.2148	2.5970
9*	1.6353	1.3328	1.4396	1.3324	1.5479	1.4210	1.2195	2.5938
10*	1.6755	1.4388	1.7098	1.7151	1.3881	1.4445	1.2154	2.7016
11*	1.6297	1.3323	1.7140	1.3582	1.7472	1.4140	1.3143	3.2473
12*	1.3001	1.5480	1.3879	1.7471	1.5198	1.2773	2.1994	
13*	1.4158	1.4207	1.4442	1.4137	1.2772	1.9752	4.3098	
14*	1.2148	1.2193	1.2151	1.3140	2.1989	4.3109		
15 *	2.5970	2.5947	2.6984	3.2454				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-5 (CONTINUED)

M-SUB-C VALUES (F-SUB-Q RPS MARGIN) POWER ESCALATION

AT 118% POWER, 4 EFPD, THIS IS LEVEL 2 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	1.3204	1.8246	1.9632	1.8327	1.2806	1.6503	1.2754	2.8937
9*	1.8246	1.3190	1.6494	1.2998	1.7276	1.6577	1.2806	2.8719
10*	1.9632	1.6485	2.0113	1.9034	1.3318	1.6748	1.3046	3.0097
11*	1.8327	1.2996	1.9023	1.3261	1.9271	1.3510	1.4151	3.6556
12*	1.2806	1.7276	1.3316	1.9269	1.7534	1.3834	2.3909	
13*	1.6503	1.6574	1.6745	1.3508	1.3833	2.2631	4.9556	
14*	1.2754	1.2805	1.3043	1.4148	2.3904	4.9567		
15 *	2.8937	2.8726	3.0087	3.6538				

AT 118% POWER, 4 EFPD, THIS IS LEVEL 1 OF 24
(LEVEL 24 = TOP OF CORE, LEVEL 1 = BOTTOM)

	H	G	F	E	D	C	B	A
8*	3.2153	4.0687	4.3731	4.0218	3.1677	4.0251	3.4403	6.6617
9*	4.0687	3.2743	4.0100	3.2384	3.9001	4.0895	3.4579	6.6400
10*	4.3731	4.0082	4.4762	4.1479	3.2622	4.0940	3.5496	6.8864
11*	4.0218	3.2380	4.1466	3.3798	4.2009	3.3769	3.8246	8.1963
12*	3.1677	3.9001	3.2617	4.2004	4.3343	3.7172	5.5401	
13*	4.0251	4.0888	4.0933	3.3765	3.7170	5.3792	10.9144	
14*	3.4403	3.4575	3.5488	3.8238	5.5388	10.9163		
15 *	6.6617	6.6399	6.8873	8.1941				

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-6

F-DEL-H & M-DEL-H VALUES - POWER ESCALATION

AT 100% POWER, 4 EFPD

	H	G	F	E	D	C	B	A
8	1.3372	1.2300	1.2162	1.2307	1.4365	1.3762	1.4524	0.7057
	1.3483	1.4601	1.4647	1.4182	1.2195	1.2533	1.2277	2.2996
9	1.2300	1.4178	1.3950	1.4028	1.2865	1.3708	1.4429	0.7023
	1.4601	1.2780	1.2748	1.2649	1.3528	1.2624	1.2368	2.3237
10	1.2162	1.3953	1.1948	1.1694	1.3255	1.3334	1.4308	0.6683
	1.4647	1.2747	1.4815	1.5155	1.3579	1.3413	1.2514	2.5150
11	1.2307	1.4029	1.1702	1.3592	1.1305	1.2573	1.3125	0.5631
	1.4182	1.2649	1.5146	1.3136	1.5586	1.4168	1.3517	3.0050
12	1.4365	1.2865	1.3257	1.1306	1.2602	1.3633	0.8201	
	1.2195	1.3528	1.3577	1.5586	1.3730	1.2833	2.0522	
13	1.3762	1.3710	1.3337	1.2575	1.3634	0.9221	0.4325	
	1.2533	1.2622	1.3410	1.4167	1.2832	1.8000	3.7604	
14	1.4524	1.4430	1.4311	1.3128	0.8202	0.4324		
	1.2277	1.2367	1.2512	1.3514	2.0520	3.7614		
15	0.7057	0.7019	0.6695	0.5637	F-DEL-H			
	2.2996	2.3248	2.5103	3.0022	M-DEL-H			

AT 75% POWER, 4 EFPD

	H	G	F	E	D	C	B	A
8	1.3312	1.2257	1.2120	1.2299	1.4469	1.3959	1.4714	0.7041
	1.6685	1.7624	1.6959	1.6227	1.4132	1.4456	1.3917	2.6806
9	1.2257	1.4176	1.3982	1.4033	1.2921	1.3893	1.4613	0.7002
	1.7624	1.5556	1.4712	1.4815	1.5377	1.4293	1.4096	2.7099
10	1.2120	1.3985	1.1907	1.1637	1.3311	1.3475	1.4463	0.6656
	1.6959	1.4711	1.7246	1.7585	1.5574	1.5195	1.4413	2.8993
11	1.2299	1.4034	1.1646	1.3576	1.1254	1.2567	1.3175	0.5582
	1.6227	1.4814	1.7575	1.6075	1.8750	1.7428	1.6340	3.5385
12	1.4469	1.2921	1.3313	1.1255	1.2619	1.3660	0.8151	
	1.4132	1.5377	1.5571	1.8750	1.6420	1.5726	2.5210	
13	1.3959	1.3895	1.3478	1.2569	1.3660	0.9185	0.4248	
	1.4456	1.4291	1.5192	1.7427	1.5725	2.1981	4.6582	
14	1.4714	1.4614	1.4466	1.3178	0.8151	0.4246		
	1.3917	1.4095	1.4410	1.6335	2.5207	4.6595		
15	0.7041	0.6999	0.6668	0.5587	F-DEL-H			
	2.6806	2.7111	2.8939	3.5350	M-DEL-H			

Catawba 1 Cycle 27 Core Operating Limits Report

TABLE A-6 (CONTINUED)

F-DEL-H & M-DEL-H VALUES - POWER ESCALATION

AT 50% POWER, 4 EFPD

	H	G	F	E	D	C	B	A
8	* 1.3214	* 1.2173	* 1.2039	* 1.2268	* 1.4581	* 1.4168	* 1.4925	* 0.7041
	* 1.4768	* 1.7408	* 1.6595	* 1.5787	* 1.3486	* 1.3564	* 1.3253	* 2.6258
9	* 1.2173	* 1.4138	* 1.3974	* 1.4010	* 1.2981	* 1.4090	* 1.4818	* 0.6998
	* 1.7408	* 1.5086	* 1.4340	* 1.4282	* 1.4862	* 1.3711	* 1.3448	* 2.6642
10	* 1.2039	* 1.3976	* 1.1832	* 1.1557	* 1.3367	* 1.3629	* 1.4641	* 0.6644
	* 1.6595	* 1.4340	* 1.6916	* 1.7272	* 1.5303	* 1.4735	* 1.3973	* 2.8636
11	* 1.2268	* 1.4010	* 1.1565	* 1.3550	* 1.1198	* 1.2569	* 1.3255	* 0.5546
	* 1.5787	* 1.4282	* 1.7268	* 1.5634	* 1.8268	* 1.6976	* 1.6139	* 3.5487
12	* 1.4581	* 1.2982	* 1.3370	* 1.1200	* 1.2644	* 1.3701	* 0.8117	*
	* 1.3486	* 1.4861	* 1.5301	* 1.8269	* 1.5801	* 1.5024	* 2.4649	*
13	* 1.4168	* 1.4092	* 1.3632	* 1.2571	* 1.3701	* 0.9161	* 0.4178	*
	* 1.3564	* 1.3709	* 1.4731	* 1.6975	* 1.5023	* 2.1320	* 4.5428	*
14	* 1.4925	* 1.4819	* 1.4645	* 1.3259	* 0.8117	* 0.4177	*	*
	* 1.3253	* 1.3447	* 1.3970	* 1.6135	* 2.4646	* 4.5440	*	*
15	* 0.7041	* 0.6994	* 0.6657	* 0.5552	* F-DEL-H			
	* 2.6258	* 2.6652	* 2.8582	* 3.5451	* M-DEL-H			

AT 30% POWER, 4 EFPD

	H	G	F	E	D	C	B	A
8	* 1.3111	* 1.2082	* 1.1950	* 1.2233	* 1.4681	* 1.4358	* 1.5123	* 0.7050
	* 1.4768	* 1.7408	* 1.6595	* 1.5787	* 1.3486	* 1.3564	* 1.3253	* 2.6258
9	* 1.2082	* 1.4084	* 1.3945	* 1.3978	* 1.3033	* 1.4269	* 1.5010	* 0.7003
	* 1.7408	* 1.5086	* 1.4340	* 1.4282	* 1.4862	* 1.3711	* 1.3448	* 2.6642
10	* 1.1950	* 1.3948	* 1.1752	* 1.1487	* 1.3419	* 1.3769	* 1.4810	* 0.6643
	* 1.6595	* 1.4340	* 1.6916	* 1.7272	* 1.5303	* 1.4735	* 1.3973	* 2.8636
11	* 1.2233	* 1.3979	* 1.1493	* 1.3523	* 1.1148	* 1.2604	* 1.3334	* 0.5520
	* 1.5787	* 1.4282	* 1.7268	* 1.5634	* 1.8268	* 1.6976	* 1.6139	* 3.5487
12	* 1.4681	* 1.3033	* 1.3421	* 1.1150	* 1.2664	* 1.3738	* 0.8093	*
	* 1.3486	* 1.4861	* 1.5301	* 1.8269	* 1.5801	* 1.5024	* 2.4649	*
13	* 1.4358	* 1.4271	* 1.3773	* 1.2607	* 1.3739	* 0.9144	* 0.4119	*
	* 1.3564	* 1.3709	* 1.4731	* 1.6975	* 1.5023	* 2.1320	* 4.5428	*
14	* 1.5123	* 1.5012	* 1.4814	* 1.3338	* 0.8093	* 0.4118	*	*
	* 1.3253	* 1.3447	* 1.3970	* 1.6135	* 2.4646	* 4.5440	*	*
15	* 0.7050	* 0.6999	* 0.6656	* 0.5526	* F-DEL-H			
	* 2.6258	* 2.6652	* 2.8582	* 3.5451	* M-DEL-H			