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U. S. Nuclear Regulatory Commission
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Subject: Oconee Nuclear Site Docket No. 50-287
Core Operating Limits Report (COLR)

Gentlemen:

Attached, pursuant to Oconee Technical Specifications 5.6.5, is an information copy of a revision to the Core Operating Limits Report for Oconee Unit 3, Cycle 20, Rev. 16.

Very truly yours,

R. A. Jones Site, Vice President
Oconee Nuclear Site

Attachment

A001

xc w/att: Mr. L. A. Reyes, Regional Administrator
U. S. Nuclear Regulatory Commission, Region II

Mr. L. N. Olshan, Project Manager
Office of Nuclear Reactor Regulation

Mr. Mel Shannon
Senior Resident Inspector
Oconee Nuclear Site

PRIORITY SuperRush

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Duke Power Company

Oconee 3 Cycle 20

Core Operating Limits Report

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QA Condition 1

~~Not Reviewed or Approved by CFAM 3.13~~

REVIEWED AND APPROVED BY CFAM 3.13

REVIEWED AND APPROVED BY CFAM 3.13

Prepared By : J. Mark Sanders Date : 10/11/2002

Checked By : G. M. Presnell Date : 10/14/02

CDR By : M. W. Scott Date : 10/14/2002

Approved By : R. R. StClair Date : 10/15/2002

Oconee 3 Cycle 20

Core Operating Limits Report

Insertion Sheet for Revision 16

This revision is not valid until the end of operation for Oconee 3 Cycle 19.

Remove these Revision 15 pages	Insert these Revision 16 pages
1 - 3, and 5	1 - 3, and 5

Revision Log

Revision	Effective Date	Pages Revised	Pages Added	Pages Deleted	Total Effective Pages
Oconee 3 Cycle 20 revisions below					
16	Oct-02	1 - 3, 5	-	-	31
15	Nov-01	1 - 3	-	-	31
14	Nov-01	1 - 31	-	-	31
Oconee 3 Cycle 19 revisions below					
13	Apr-00	1 - 31	-	-	31
Oconee 3 Cycle 18 revisions below					
12	Feb-00	1 - 4	-	-	31
11	Jun-99	1-3, 31	-	-	31
10	Mar-99	1 - 31	-	32 - 38	31
9	Oct-98	1 - 38	-	-	38

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10/11/2002

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DUKE ENERGY NUCLEAR, LLC
No. C02476
CERTIFICATE OF AUTHORIZATION

Oconee 3 Cycle 20

1.0 Error Adjusted Core Operating Limits

The Core Operating Limits Report for O3C20 has been prepared in accordance with the requirements of ITS 5.6.5. The core operating limits within this report have been developed using NRC approved methodology identified in references 1 through 10. The RPS protective limits and maximum allowable setpoints are documented in references 11 through 13. These limits are validated for use in O3C20 by references 14 through 16. The O3C20 analyses assume a design flow of 107.5% of 88,000 gpm per RCS pump, radial local peaking (FΔh) of 1.714, an axial peaking factor (Fz) of 1.5, and an EOC (≤ 100 ppmB) Tavg reduction of up to 10 °F provided 4 RCPs are in operation and Tavg does not decrease below 569 °F.

The error adjusted core operating limits included in section 1 of the report incorporate all necessary uncertainties and margins required for operation of the O3C20 reload core.

1.1 References

1. Nuclear Design Methodology Using CASMO-3 / SIMULATE-3P, DPC-NE-1004P-A, SER dated November 23, 1992.

2. Oconee Nuclear Station Reload Design Methodology II, DPC-NE-1002A, Revision 1, SER dated October 1, 1985.

3. Oconee Nuclear Station Reload Design Methodology, NFS-1001A, Revision 5, SER dated December 8, 2000.

4. Oconee Nuclear Station Core Thermal Hydraulic Methodology Using VIPRE-01, DPC-NE-2003P-A, SER dated July 19, 1989.

5. Thermal Hydraulic Statistical Core Design Methodology, DPC-NE-2005P-A, Revision 2, SER dated June 8, 1999.

6. Fuel Mechanical Reload Analysis Methodology Using TACO3, DPC-NE-2008P-A, SER dated April 3, 1995.

7. UFSAR Chapter 15 Transient Analysis Methodology, DPC-NE-3005-PA, Revision 1, SER dated May 25, 1999.

8. DPC-NE-3000P-A, Thermal Hydraulic Transient Analysis Methodology, Rev. 2, SER dated October 14, 1998.

9. BAW-10192-PA, BWNT LOCA - BWNT Loss of Coolant Accident Evaluation Model for Once-Through Steam Generator Plants, SER dated February 18, 1997.

10. BAW-10227-PA, Evaluation of Advanced Cladding and Structural Material (M5) in PWR Reactor Fuel, SER dated February 4, 2000.

11. Variable Low Pressure Safety Limit, OSC-4048, Revision 3, July 1998.

12. Power Imbalance Safety Limits and Tech Spec Setpoints Using Error Adjusted Flux-Flow Ratio of 1.094, OSC-5604, Revision 1, November 1998.

13. ΔTc and EOC Reduced Tavg Operation, OSC-7265, Rev. 0, Duke Power Co., April 2001.

14. O3C20 Maneuvering Analysis, OSC-7727, Revision 4, October 2002.

15. O3C20 Specific DNB Analysis, OSC-7845, Revision 0, June 2001.

16. O3C20 Reload Safety Evaluation & 10CFR50.59, OSC-7959, Revision 1, November 2001.

Oconee 3 Cycle 20

Steady State Operating Band

	Rod Index		APSR %WD	
EFPD	Min	Max	Min	Max
0 to 426	292 ± 5	300	30	40
426 to EOC	292 ± 5	300	100	100

Quandrant Power Tilt Setpoints

	Steady State		Transient		Maximum
Core Power Level, %FP	30 - 100	0 - 30	30 - 100	0 - 30	0 - 100
Full Incore	3.50	7.73	7.23	9.51	16.67
Out of Core	2.24	6.09	5.63	7.72	14.22
Backup Incore	2.22	3.87	3.63	4.81	10.07

Referred to by TS 3.2.3.