

DUKE POWER COMPANY
OCONEE 3 CYCLE 13
CORE OPERATING LIMITS REPORT
REVISION 2
MAY 16, 1991

Reference by: OSC-3963, 03C13 MA

Prepared by: W.B. Passley, Jr.
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QA CONDITION 1

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PDR

May 8, 1991

J. L. Eller

Subject: Oconee Nuclear Station
O3C13 Core Operating Limits Report
File: OS-228.24

References: 1) O3C13 RPS Setpoints and Safety Review, OSC-4248,
February 2, 1991.
2) Variable Low Pressure Safety Limit, OSC-4048, July
24, 1990

The O1C14 reload submittal proposes that the reload-dependent RPS safety limits, RPS trip setpoints, and tilt setpoints are removed from the Technical Specifications and placed in the Core Operating Limits Report (COLR). In addition, the design radial and axial peaking factors are being removed from the bases of the Technical Specifications and placed in the COLR. These proposed Technical Specification changes are applicable to all three units. Therefore, attached is a revision to the O3C13 COLR incorporating these administrative changes.

Reference 1 verifies that the RPS safety limit and trip setpoints currently in the Technical Specifications are valid for O3C13. Reference 2 justifies a change in the variable low pressure safety limit. Thus, these references provide the basis for the figures that have been added to the COLR.

Safety Analysis requests that the O3C13 COLR is revised to incorporate the above described changes.



J. E. Burchfield, Jr., Design Engineer
Safety Analysis

JEB/jeb

Attachment

cc: G. B. Swindlehurst
V. D. Daji
K. S. Canady

G. J. Byers
J. A. Perry, Jr.

Oconee Nuclear Station
Unit 3 Cycle 13
Core Operating Limits Report
Revision 2
Revision Log

<u>Revision</u>	<u>Effective Date</u>	<u>Effective Date</u>
Original Issue	04SEP90	Pages 1 - 18
1	18MAR91	Pages 1 - 3
2	15MAY91	Pages 3-4D

1.0 CORE OPERATING LIMITS

This Core Operating Limits Report for O3C13 has been prepared in accordance with the requirements of Technical Specification 6.9. The core operating limits have been developed using NRC-approved methodology (References 1, 2, and 3) and are documented in Reference 4. The RPS safety limits and setpoints for O3C13 are documented in References 5 and 6. The Reactor Coolant System design flow used in Reference 4 for O3C13 is 110.5% (of 88,000 gpm per RCP). The core operating limits have been developed with a radial local peaking factor ($F_{\Delta H}^N$) of 1.714 and an axial peaking factor (F_Z^N) of 1.5.

The following cycle-specific core operating limits are included in this report:

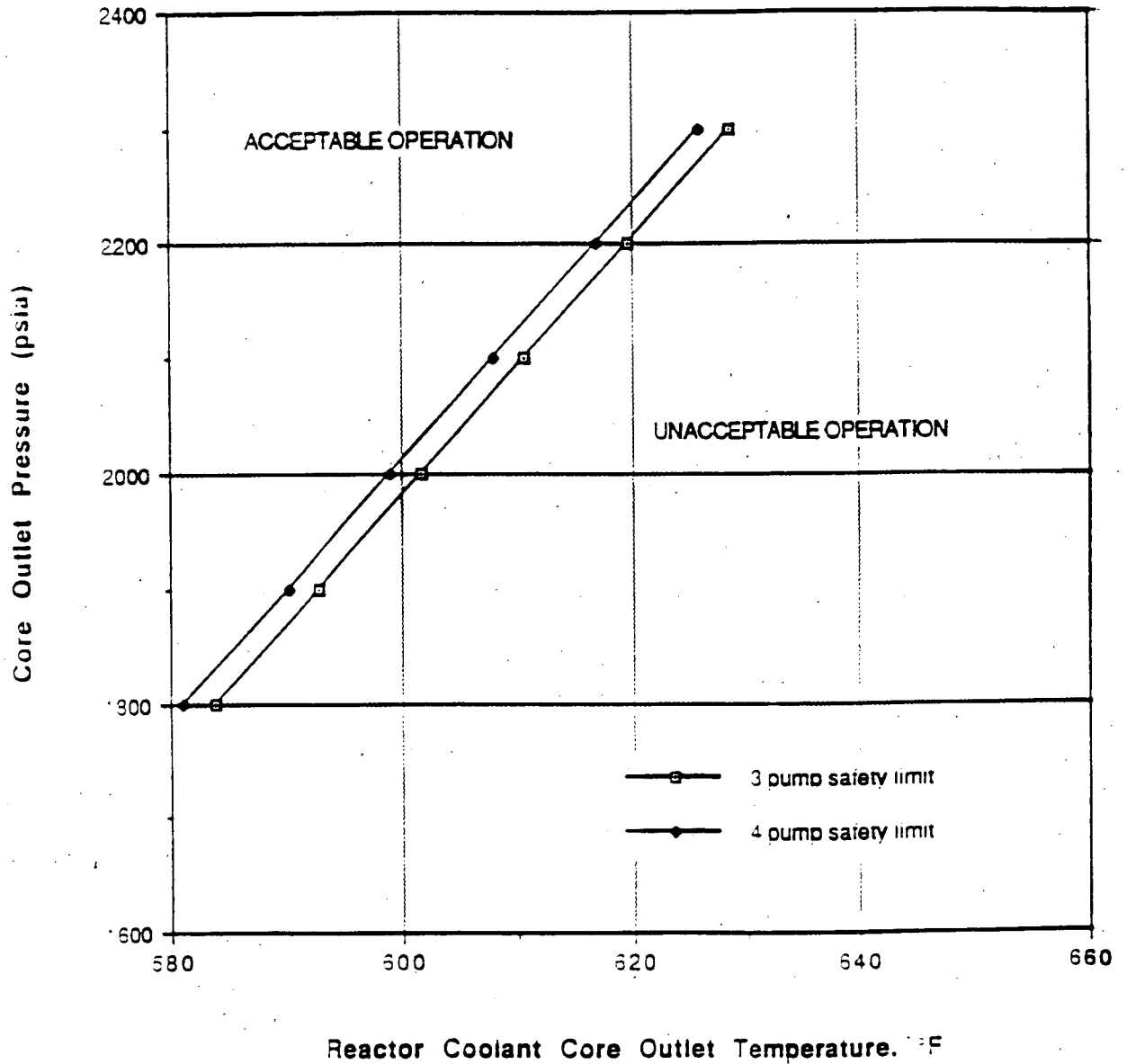
- 1) RPS safety limits,
- 2) RPS limiting safety system settings,
- 3) Steady state operating band,
- 4) Operational power-imbalance limits,
- 5) Operational and shutdown margin-limited control rod position limits, and
- 6) Quadrant power tilt limits.

1.1 REFERENCES

1. Duke Power Company, Oconee Nuclear Station, Reload Design Methodology II, DPC-NE-1002A, October 1985.
2. NFS-1001A, Reload Design Methodology, April 1984.
3. DPC-DE-2003A, Oconee Nuclear Station Core Thermal Hydraulic Methodology Using VIPRE-01, July 1989.
4. O3C13 Maneuvering Analysis, Duke Power Company calculational file, OSC-3963, Revision 0, 27AUG90.
5. Variable Low Pressure Safety Limit, Duke Power Company calculational file, OSC-4048, Revision 0, 24JUL90.
6. O3C13 RPS Setpoints and Safety Review, Duke Power Company calculational file, OSC-4248, 02FEB91.

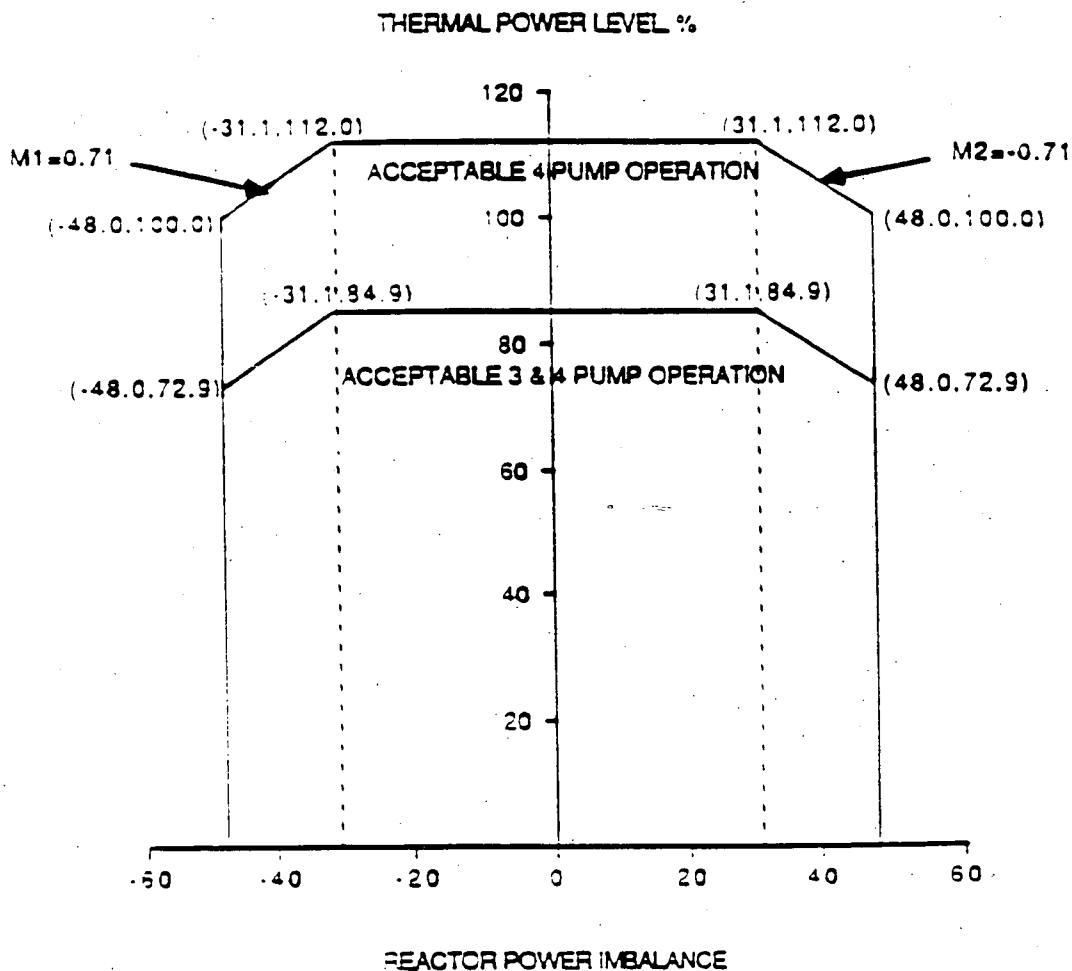
Figure 1.1

CORE PROTECTION SAFETY LIMITS UNIT 3



Referred to by Tech. Spec. 2.1

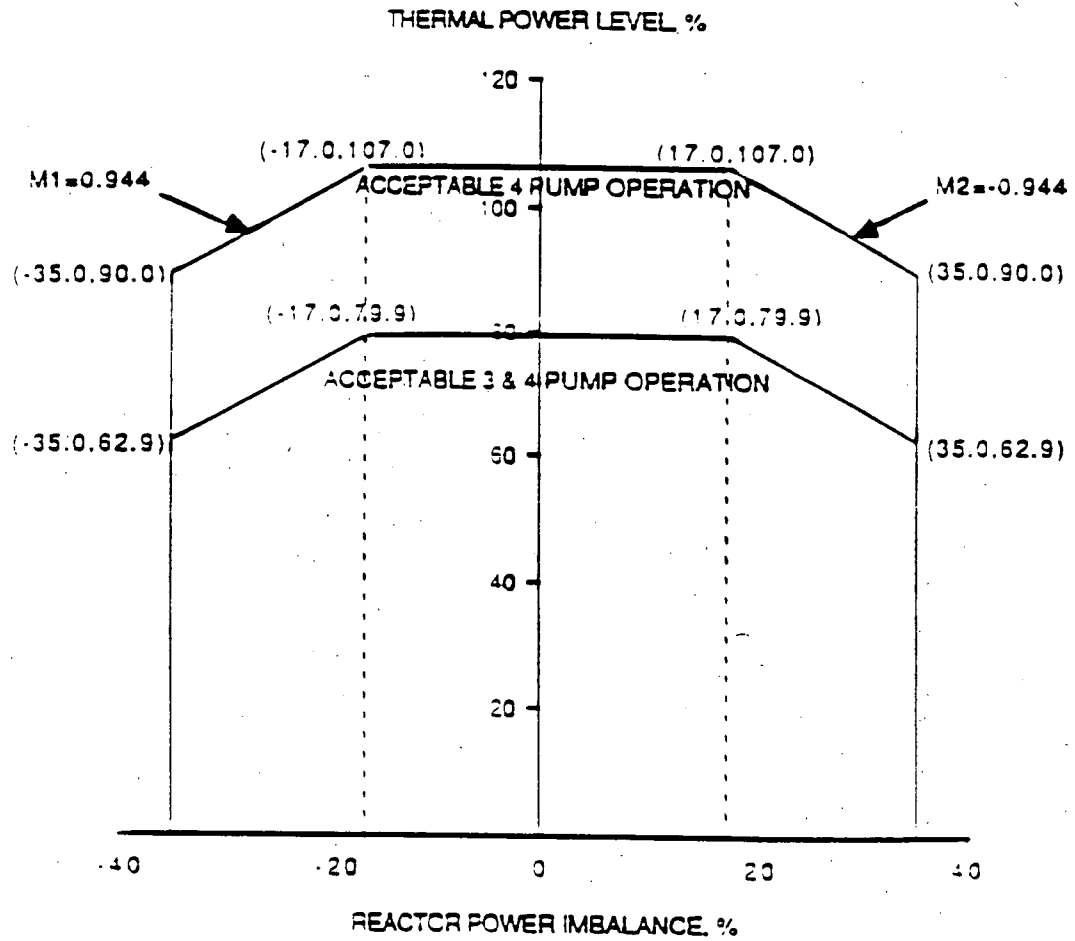
Figure 1.2
CORE PROTECTION SAFETY LIMITS UNIT 3



Referred to by Tech. Spec. 2.1

Figure 1.3

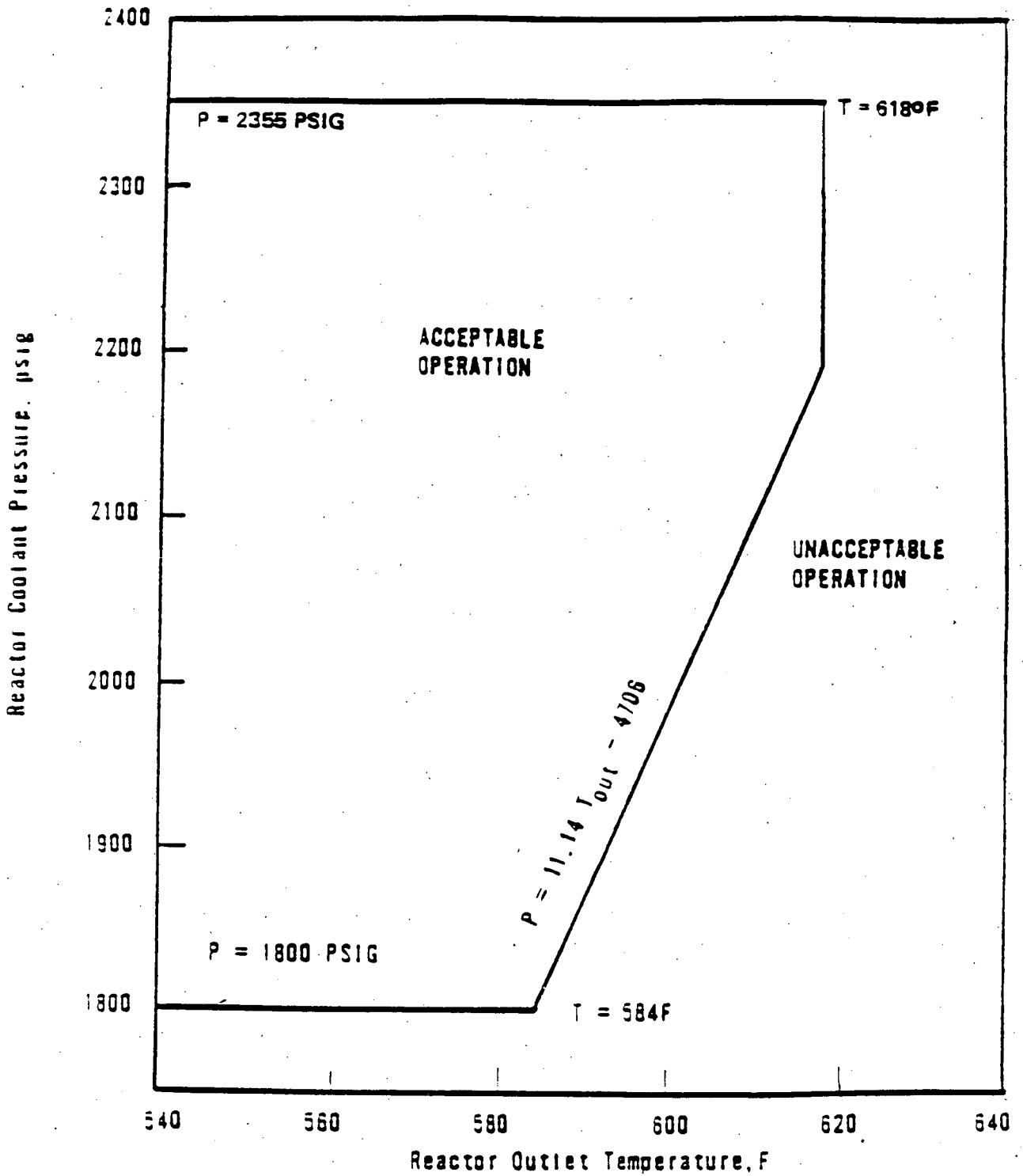
PROTECTIVE SYSTEM MAXIMUM ALLOWABLE SETPOINTS UNIT 3



Referred to by Tech. Spec. 2.3

Figure 1.4

PROTECTIVE SYSTEM MAXIMUM ALLOWABLE SETPOINTS UNIT 3



Referred to by Tech. Spec. 2.3

Oconee 3 Cycle 13

QUADRANT POWER TILT LIMITS

Steady State Limit

5.00

Transient Limit

9.44

Maximum Limit

20.0

Referred to by Tech. Spec:

3.5.2.4.a

3.5.2.4.b

3.5.2.4.d

3.5.2.4.e

3.5.2.4.f