

DUKE POWER COMPANY
OCONEE 2 CYCLE 12
CORE OPERATING LIMITS REPORT
REVISION 2
MAY 20, 1991

Reference by: OSC-3934

Prepared by: H.B. Pressley, Jr.
Reviewed by: Vijay D. Daji
Approved by: J. Keller

QA CONDITION 1

Oconee Nuclear Station
Unit 2 Cycle 12
Core Operating Limits Report
Revision 2
Revision Log

<u>Revision</u>	<u>Effective Date</u>	<u>Effective Date</u>
Original Issue	17APR90	Pages 1 - 18
1	18MAR91	Pages 1 - 3
2	20MAY91	Pages 3 - 4D

1.0 CORE OPERATING LIMITS

This Core Operating Limits Report for O2C12 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 O2C12 are documented in References 5 and 6. The Reactor Coolant System design flow used in Reference 4 for O2C12 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) of 1.5.

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

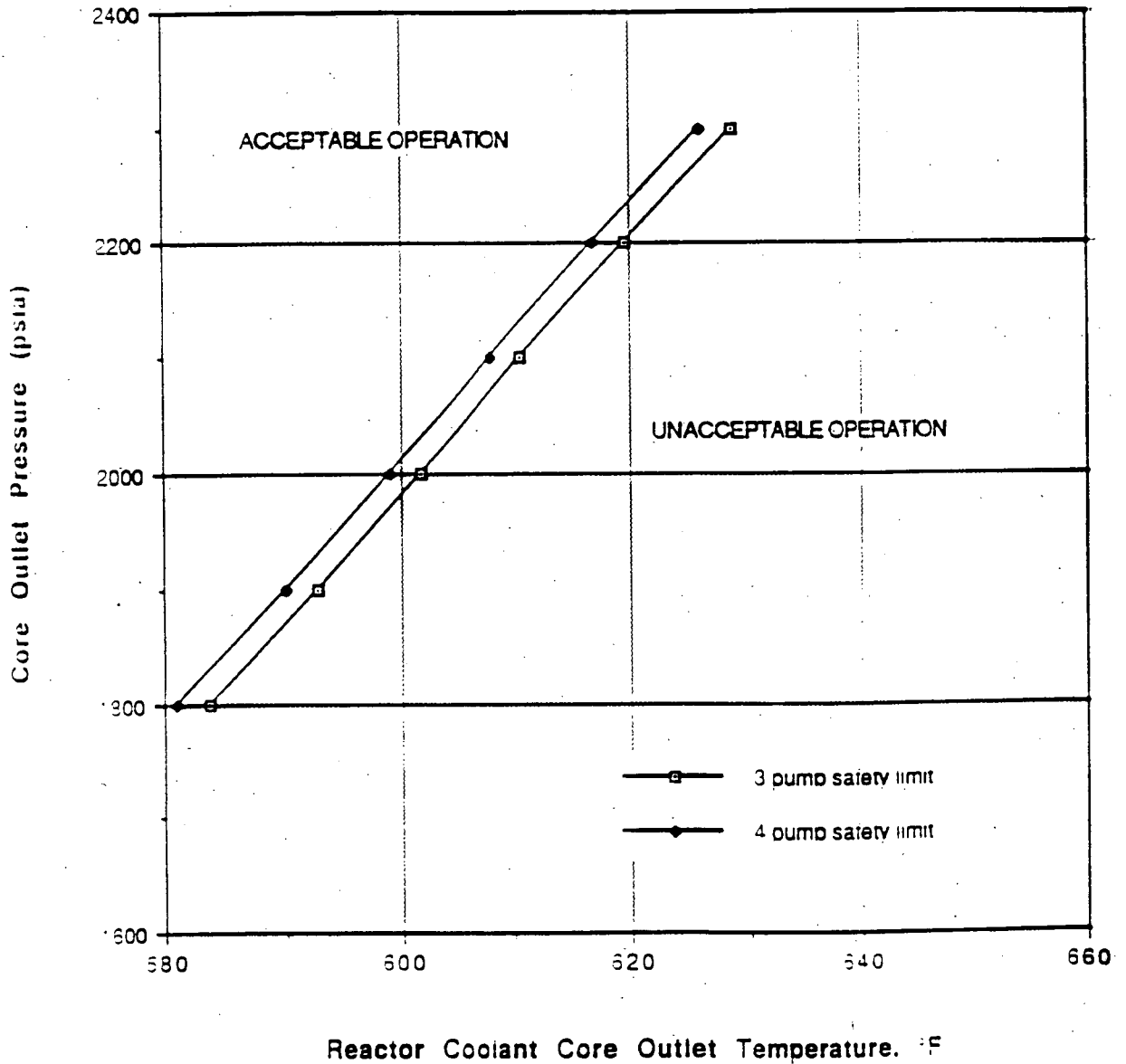
- 1) RPS safety limits,
- 2) RPS limiting safety system settings,
- 3) Steady state operating band,
- 4) Operational power-imbalance limits,
- 5) Operational and shutdown margin-limited control rod position limits, and
- 6) Quadrant power tilt limits.

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. O2C12 Maneuvering Analysis, Duke Power Company calculational file, OSC-3934, Revision 0, April 1990.
5. Variable Low Pressure Safety Limit, Duke Power Company calculational file, OSC-4048, Revision 0, 24JUL90.
6. O2C12 RPS Setpoints and Safety Review, Duke Power Company calculational file, OSC-4088, 20SEP90.

Figure 1.1

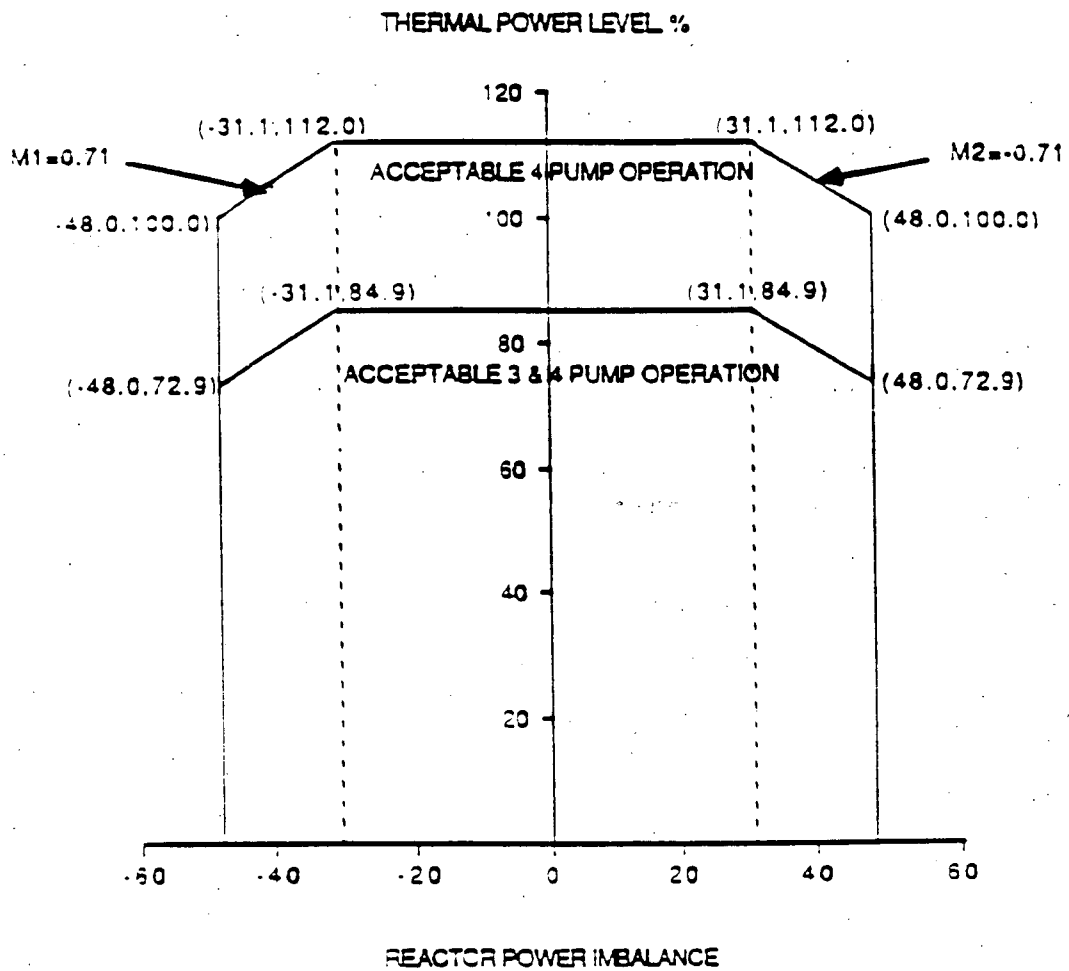
CORE PROTECTION SAFETY LIMITS UNIT 2



Referred to by Tech. Spec. 2.1

Figure 1.2

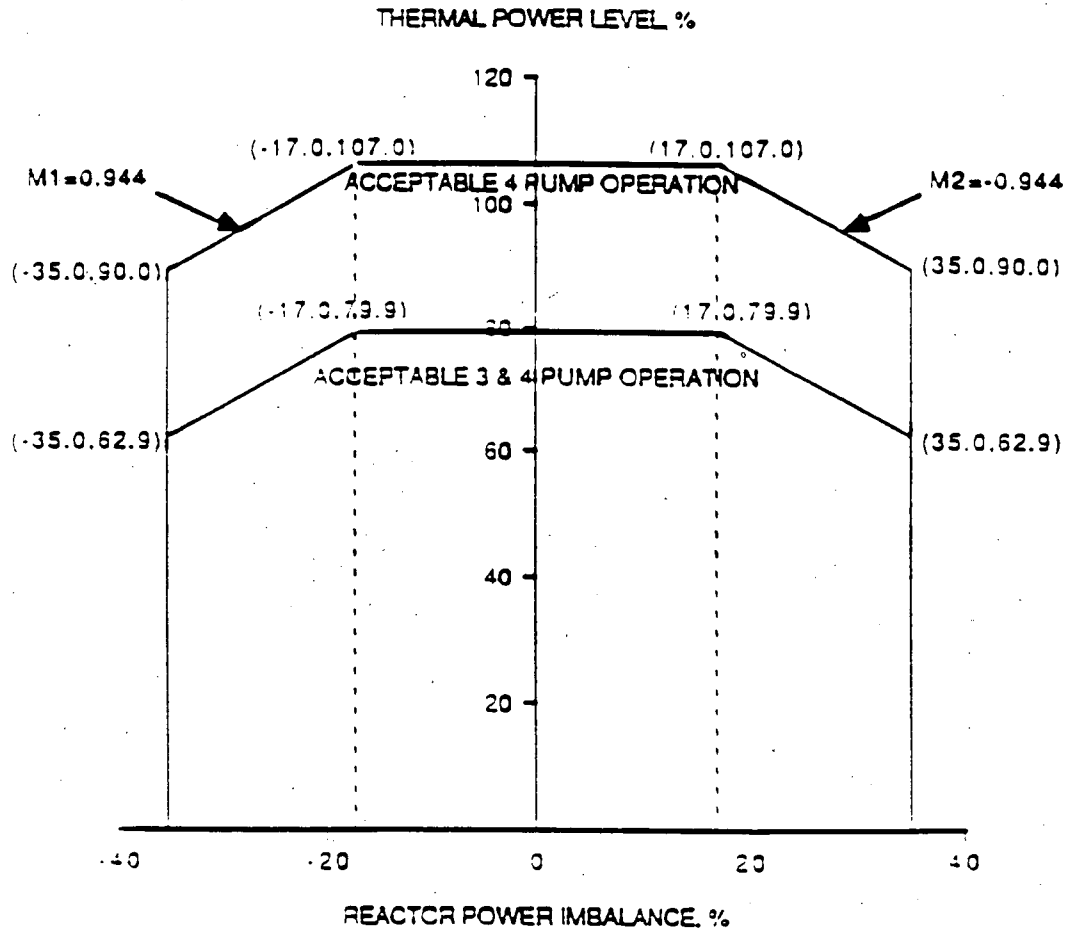
CORE PROTECTION SAFETY LIMITS UNIT 2



Referred to by Tech. Spec. 2.1

Figure 1.3

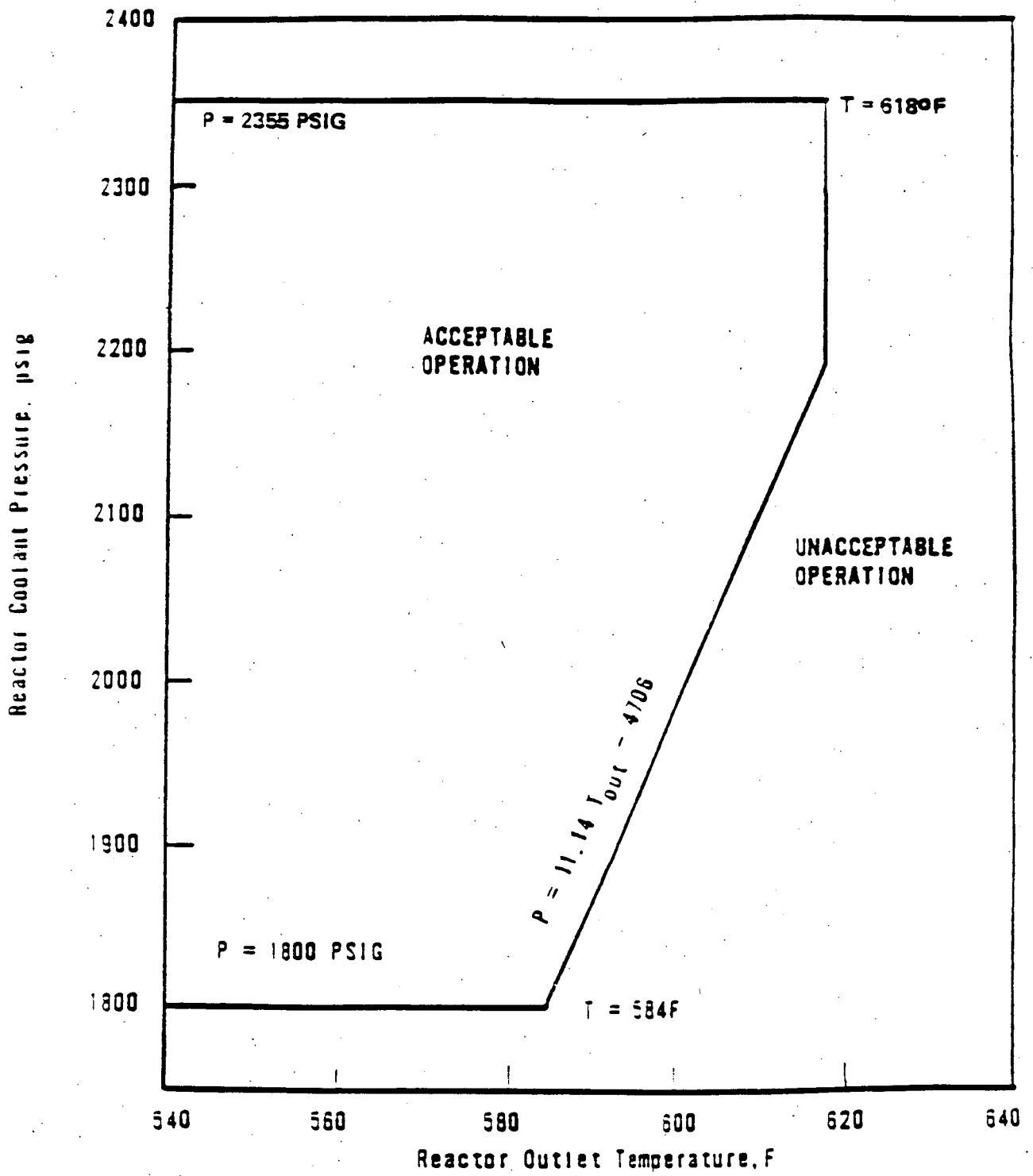
PROTECTIVE SYSTEM MAXIMUM ALLOWABLE SETPOINTS UNIT 2



Referred to by Tech. Spec. 2.3

Figure 1.4

PROTECTIVE SYSTEM MAXIMUM ALLOWABLE SETPOINTS UNIT 2



Referred to by Tech. Spec. 2.3

Oconee 2 Cycle 12

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