CORE OPERATING LIMITS REPORT

PALO VERDE NUCLEAR GENERATING STATION (PVNGS)

UNIT 3 CYCLE 6

Revision 1

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REVISION HISTORY

Revision	Date	Pages	
0	10/27/95	First issue U3C6 (24 Total Pages)	
1	12/14/95	Replaced pages 1,3,4,6,8,9 (24 Total Pages)	Rev. 1

CORE OPERATING LIMITS REPORT

PALO VERDE NUCLEAR GENERATING STATION (PVNGS)
UNIT 3 CYCLE 6

This Core Operating Limits Report for PVNGS Unit 3 Cycle 6 has been prepared in accordance with the requirements of Technical Specification 6.9.1. The core operating limits have been developed using the NRC approved methodologies specified in References 1 through 12.

AFFECTED PVNGS TECHNICAL SPECIFICATIONS

1) 3.1.1.2 Shutdown Margin - Reactor Trip Breakers Closed — Rev. 1
2) 3.1.1.3 Moderator Temperature Coefficient
3) 3.1.2.7 Boron Dilution Alarms
4) 3.1.3.1 Movable Control Assemblies - CEA Position
5) 3.1.3.6 Regulating CEA Insertion Limits
6) 3.1.3.7 Part Length CEA Insertion Limits
7) 3.2.1 Linear Heat Rate
8) 3.2.3 Azimuthal Power Tilt - T_q
9) 3.2.4 DNBR Margin
10) 3.2.7 Axial Shape Index
11) 3.9.1 Boron Concentration (Mode 6) — Rev. 1

CORE OPERATING LIMITS

The cycle-specific operating limits for the specifications listed are presented below.

3.1.1.2 - Shutdown Margin - Reactor Trip Breakers Closed — Rev. 1

The Shutdown Margin shall be greater than or equal to that shown in Figure 1.

3.1.1.3 - Moderator Temperature Coefficient

The moderator temperature coefficient (MTC) shall be within the area of Acceptable Operation shown in Figure 2.

CORE OPERATING LIMITS - CONTINUED

3.2.4 - DNBR Margin

COLSS IN SERVICE and Both CEAC's INOPERABLE - Maintaining COLSS calculated core power less than or equal to COLSS calculated core power operation limit based on DNBR decreased by the allowance shown in Figure 8.

COLSS OUT OF SERVICE and Either One or Both CEAC's are OPERABLE - Operating within the region of acceptable operation of Figure 9 using any operable CPC channel.

COLSS OUT OF SERVICE and CEAC's INOPERABLE - Operating within the region of acceptable operation of Figure 10 using any operable CPC channel.

3.2.7 - Axial Shape Index

The core average AXIAL SHAPE INDEX (ASI) shall be maintained within the following limits:

COLSS OPERABLE
$-0.28 \leq ASI \leq 0.26$

COLSS OUT OF SERVICE (CPC)
$-0.20 \leq ASI \leq 0.20$

3.9.1 - Boron Concentration (Mode 6)

The boron concentration of all filled portions of the Reactor Coolant System and the refueling canal shall be maintained at a uniform concentration $\geq$ 2650 ppm. Rev. 1

LIST OF FIGURES

FIGURE 1

SHUTDOWN MARGIN VERSUS COLD LEG TEMPERATURE
Reactor Trip Breakers Closed

Rev. 1