



FPL

OCT 20 2003

L-2003-254
10 CFR 50.36

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Re: Turkey Point Unit 4
Docket No. 50-251
Core Operating Limits Report

In accordance with Technical Specification 6.9.1.7, the attached Core Operating Limits Report is provided for Turkey Point Unit 4. These curves are applicable for Unit 4 Cycle 21.

Should there be any questions, please contact Walter Parker, Licensing Manager, at 305-246-6632.

Very truly yours,

Terry O. Jones
Vice President
Turkey Point Nuclear Plant

OIH

Attachment

NRC Regulatory Issue Summary 2001-05 waived the requirements that multiple copies of documents be submitted to the NRC

ADD 1

CORE OPERATING LIMITS REPORT - UNIT 4 CYCLE 21

The Technical Specifications (TS) affected by this report are:

- 3.1.3.2 Analog Rod Position Indication System
- 3.1.3.6 Control Rod Insertion Limits
- 3.2.1 Axial Flux Difference (AFD)
- 3.2.2 Heat Flux Hot Channel Factor - $F_Q(Z)$
- 3.2.3 Nuclear Enthalpy Rise Hot Channel Factor - $F_{\Delta H}$

The Control Rod Insertion Limits, AFD, $F_Q(Z)$, $K(Z)$, and $F_{\Delta H}$ have been developed using the NRC approved methodology specified in TS 6.9.1.7.

TS 3.1.3.2 Analog Rod Position Indication System

The All Rods Out position for all Shutdown Banks and Control Banks is defined to be 230 steps withdrawn.

TS 3.1.3.6 Control Rod Insertion Limits

The control rod banks shall be limited in physical insertion as shown on page 2 for All Rods Out = 230 steps withdrawn.

TS 3.2.1 Axial Flux Difference

The AFD limits are provided on page 3.

TS 3.2.2 Heat Flux Hot Channel Factor - $F_Q(Z)$

$$[F_Q]^L = 2.50$$

$K(Z) = 1.0$ for $0 \text{ ft.} \leq z \leq 12 \text{ ft.}$ where $z =$ core height.

TS 3.2.3 Nuclear Enthalpy Rise Hot Channel Factor

$$F_{\Delta H}^{RTP} = 1.70$$

$$PF_{\Delta H} = 0.3$$

Figure A1
Turkey Point Unit 4 - Cycle 21 Rod Insertion Limit vs Thermal Power
ARO = 230 Steps Withdrawn, Overlap = 102 Steps

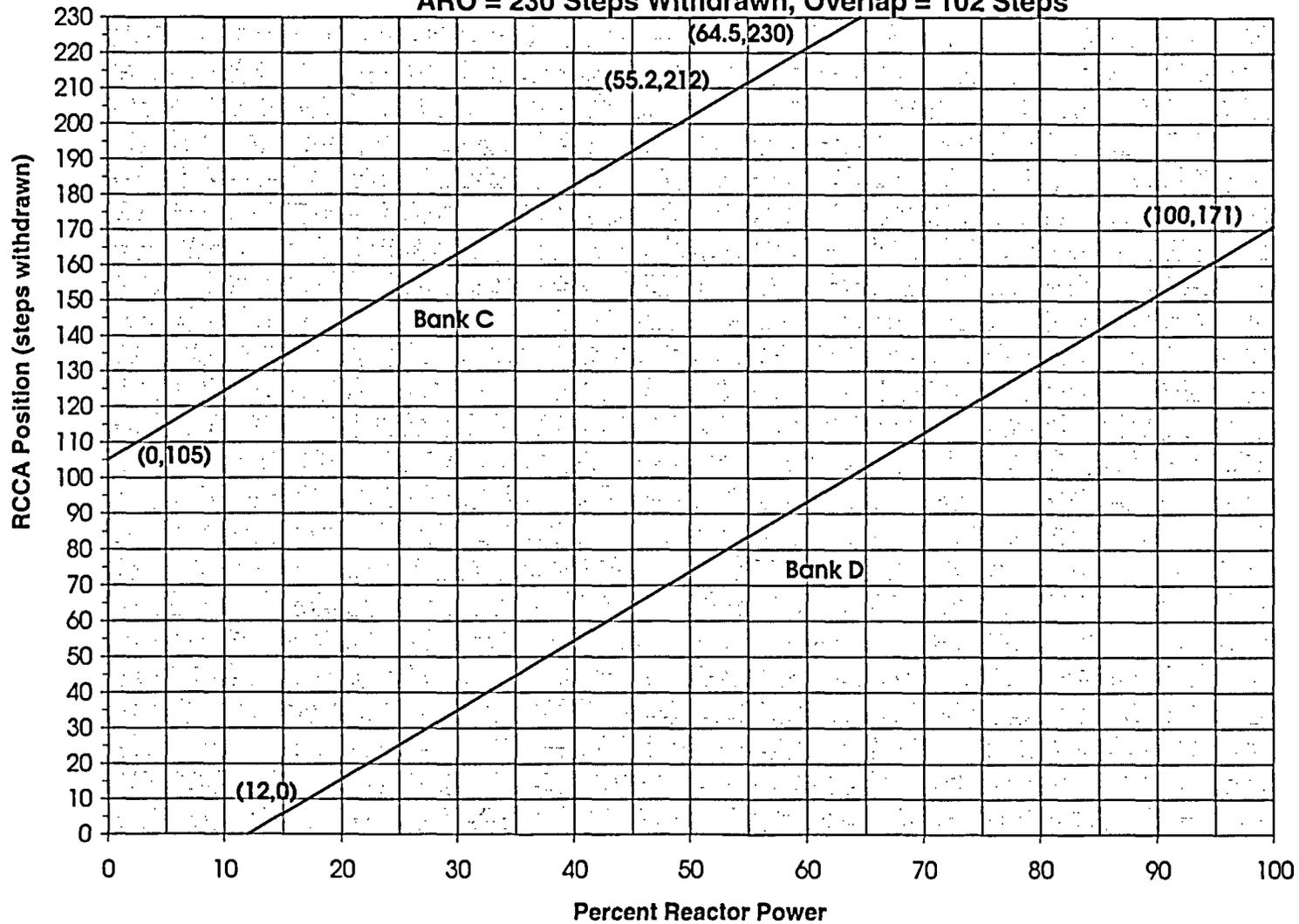


Figure A2
Axial Flux Difference as a Function of Rated Thermal Power
Turkey Point Unit 4 - Cycle 21

