



INDIAN POINT STATION

UNIT 2

GRAPH RPC-6 REV. 3

CYCLE 14
CORE OPERATING LIMITS REPORT

**DO NOT USE
FOR OPERATIONS**

CONTROLLED

Anthony Release
Written By

CL (Lincaes)

Reviewed By

Alexander J. Garm

Concurred By
Plant Manager / Section Head

Donna Syner #2306 (6/20/97)
SNSC Review/Mtg. No. / Date

Anthony Release 6/20/97
Approved By / Date

6/24/97
Effective Date

9708060020 970722
PDR ADOCK 05000247
P PDR

NOTE

The Technical Specification references shown next to each Factor OR Limit in this COLR, are there to identify the corresponding sections in Technical Specifications, that refer to the COLR.

The data presented in this report applies to Cycle 14 Only and may NOT be used for other cycles of operation. Any technical change to this graph requires a Safety Evaluation to be performed.

NUCLEAR ENTHALPY RISE HOT CHANNEL FACTOR

NOTE

P is the fraction of full power at which the core is operating.

$$F_{\Delta H}^N \leq 1.70 [1 + 0.3 (1-P)]$$

Tech. Spec. 3.10.2.1

HEIGHT DEPENDENT HEAT FLUX HOT CHANNEL FACTOR FOR
≤ 25% TUBE PLUGGING

NOTE

K(Z) is the fraction given in Figure 1 AND
Z is the core height location of F_0 .

$$\text{IF } P > .5, F_0(Z) \leq (2.50/P) \times K(Z)$$

Tech. Spec. 3.10.2.1

$$\text{IF } P \leq .5, F_0(Z) \leq (5.00) \times K(Z)$$

Tech. Spec. 3.10.2.1

#2306 6/20/97
Dana J. Jumper
SNSC
Ray Hugo
Approved
6/24/97
Effective Date

AXIAL FLUX DIFFERENCE ENVELOPE LIMITS

The Indicated Axial Flux Difference limit is the Target Band; i.e., the Target \pm 5%.

Tech. Spec. 3.10.2.6.1

The Axial Flux Difference Envelope Limits at 90 percent power are -11%, +11% AND increase by -1% and +1%, for each 2% of rated power below 90% power, as indicated by Graph RPC-5, Target Flux And Operating Envelope Diagram.

Tech. Spec. 3.10.2.6.1

INSERTION LIMITS

The Shutdown Banks shall be fully withdrawn when the reactor is critical OR approaching criticality.

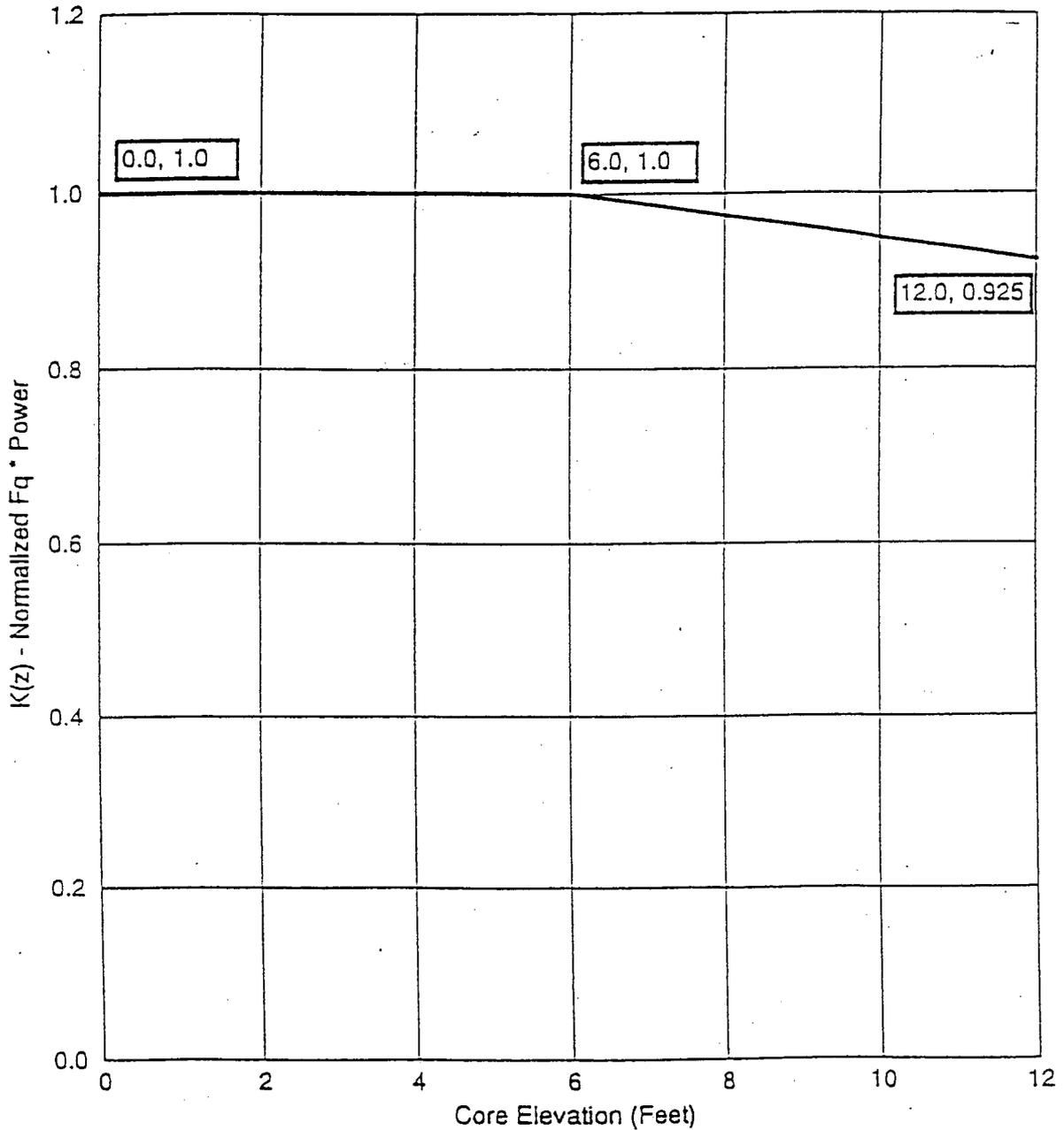
Tech. Spec. 3.10.4.1

The Control Bank Insertion Limits for Criticality, are as indicated by Figure 2.

Tech. Spec. 3.10.4.2

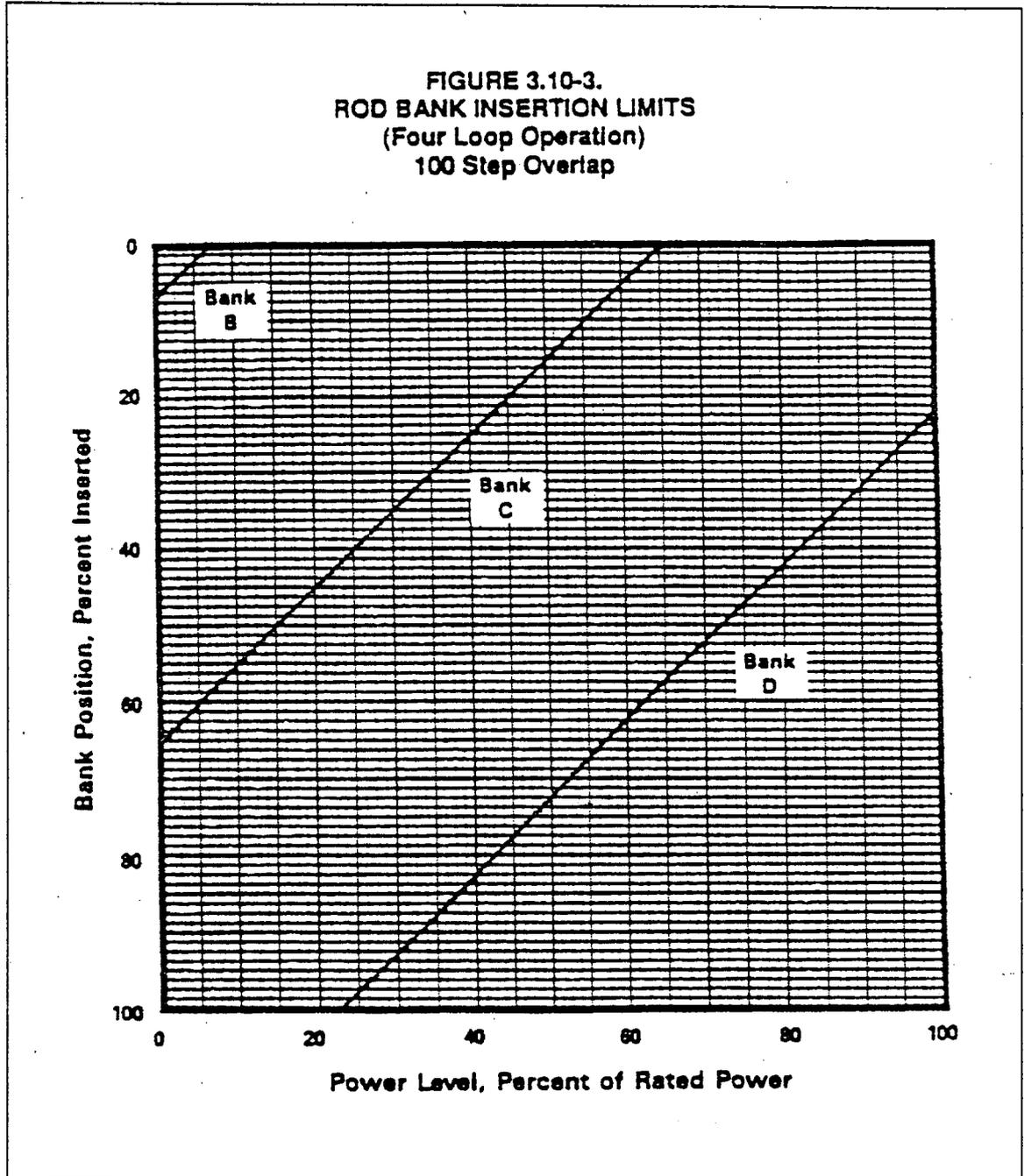
2306 6/20/97
Donna Jynell
SNSC
[Signature]
Approved
6/24/97
Effective Date

FIGURE 1 HOT CHANNEL FACTOR NORMALIZED OPERATING ENVELOPE
(For S.G. Tube Plugging up to 25%)



#2306 6/20/97
Danna Turner
SNSC
[Signature]
Approved
6/24/97
Effective Date

FIGURE 2



#2300 6/20/97
Donna Spier

SNSC

Anthony
Approved
6/24/97

Effective Date