

CORE OPERATING LIMITS REPORT UNIT 4 CYCLE 18

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 Technical Specification 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The All Rods Out position for all Shutdown Banks and Control Banks is defined to be 230 steps withdrawn.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The control rod banks shall be limited in physical insertion as shown on page 2 for All Rods Out = 230 steps withdrawn.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 - $F_Q(Z)$

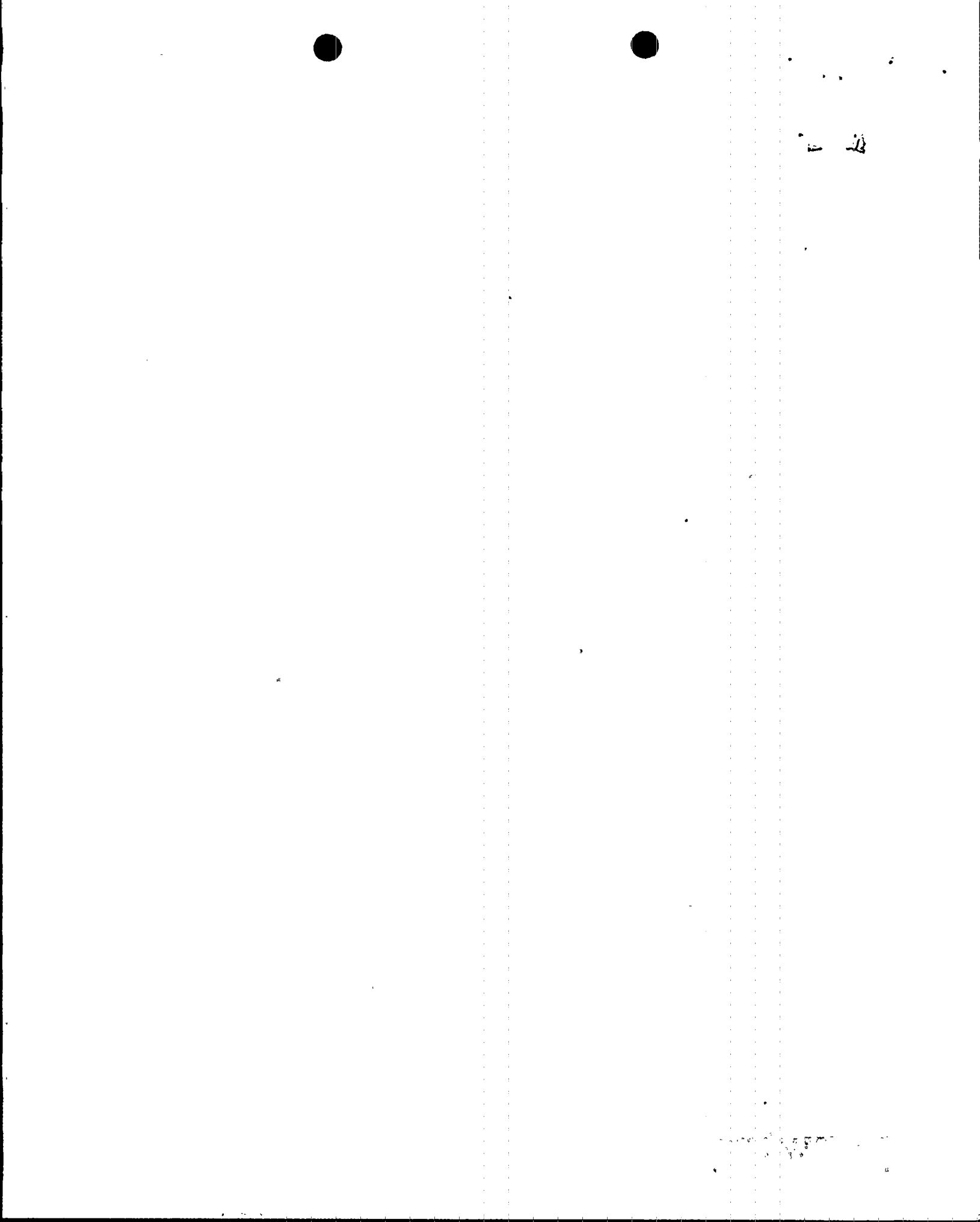
$$[F_Q]^L = 2.50$$

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

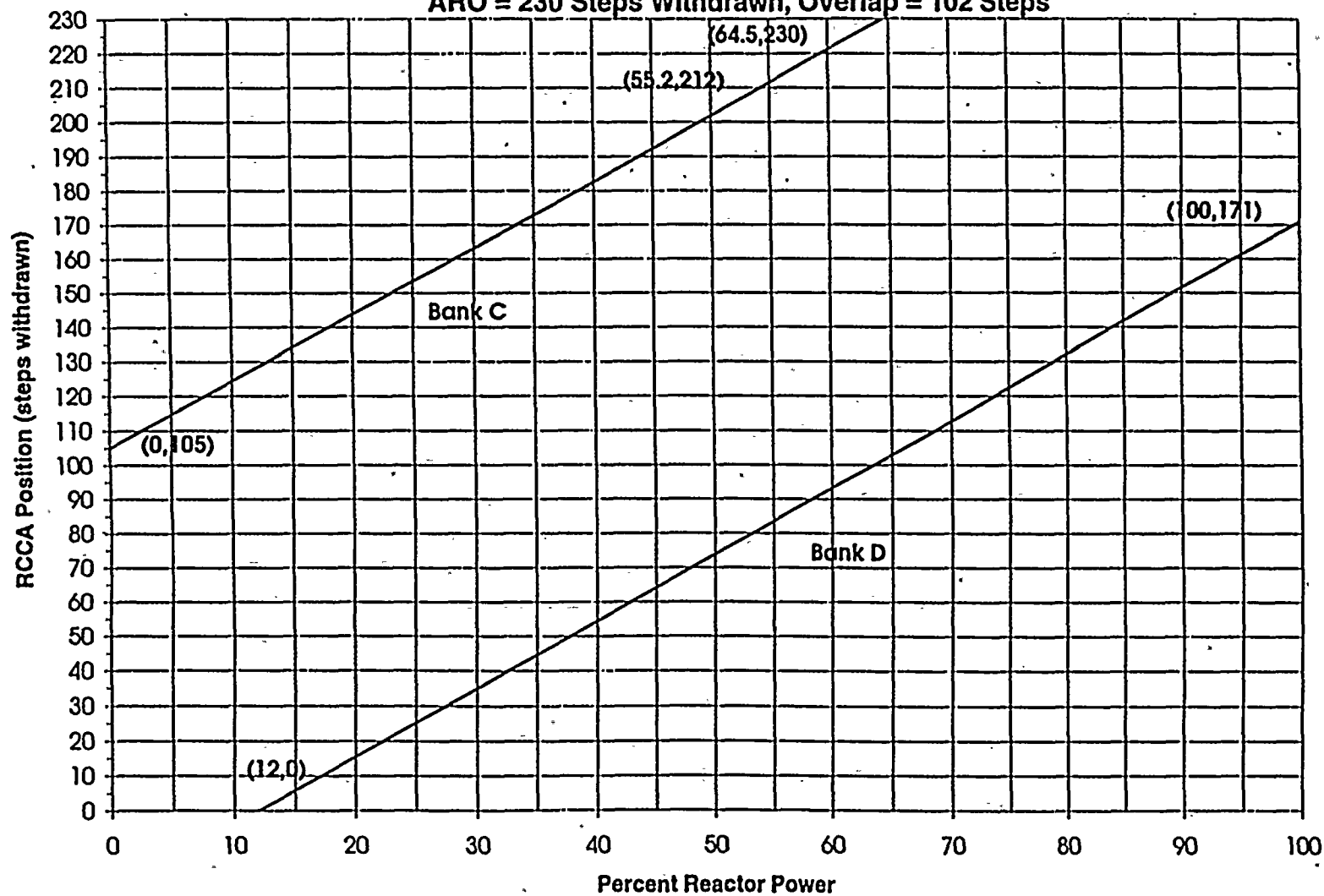
TS 3.2.3 Nuclear Enthalpy Rise Hot Channel Factor

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

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



Turkey Point Unit 4 - Cycle 18 Rod Insertion Limit vs Thermal Power
ARO = 230 Steps Withdrawn, Overlap = 102 Steps





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**Axial Flux Difference as a Function of Rated Thermal Power
Turkey Point Unit 4 - Cycle 18**

