

REACTIVITY CONTROL SYSTEMS

MODERATOR TEMPERATURE COEFFICIENT (MTC)

LIMITING CONDITION FOR OPERATION

- 3.1.1.4 The Moderator Temperature Coefficient (MTC) shall be:
- a. Less positive than $+0.2 \times 10^{-4} \Delta k/k/^\circ F$ for power levels up to 70% of RATED THERMAL POWER, with a linear ramp to $0.0 \times 10^{-4} \Delta k/k/^\circ F$ at 100% RATED THERMAL POWER as shown in Figure 3.1-1 and
 - b. Less negative than $-5.0 \times 10^{-4} \Delta k/k/^\circ F$ at RATED THERMAL POWER.

APPLICABILITY: MODES 1 and 2^{*#}

ACTION:

With the Moderator Temperature Coefficient outside any one of the above limits, be in HOT STANDBY within 6 hours.

SURVEILLANCE REQUIREMENTS

4.1.1.4.1 The MTC shall be determined to be within its limits by confirmatory measurements. MTC measured values shall be extrapolated and/or compensated to permit direct comparison with the above limits.

4.1.1.4.2 The MTC shall be determined at the following frequencies and THERMAL POWER conditions during each fuel cycle:

- a. Prior to initial operation above 5% of RATED THERMAL POWER, after each fuel loading.
- b. At any THERMAL POWER, within 7 EFPD after reaching a RATED THERMAL POWER equilibrium boron concentration of 300 ppm.

*With $K_{eff} \geq 1.0$.

#See Special Test Exception 3.10.3.

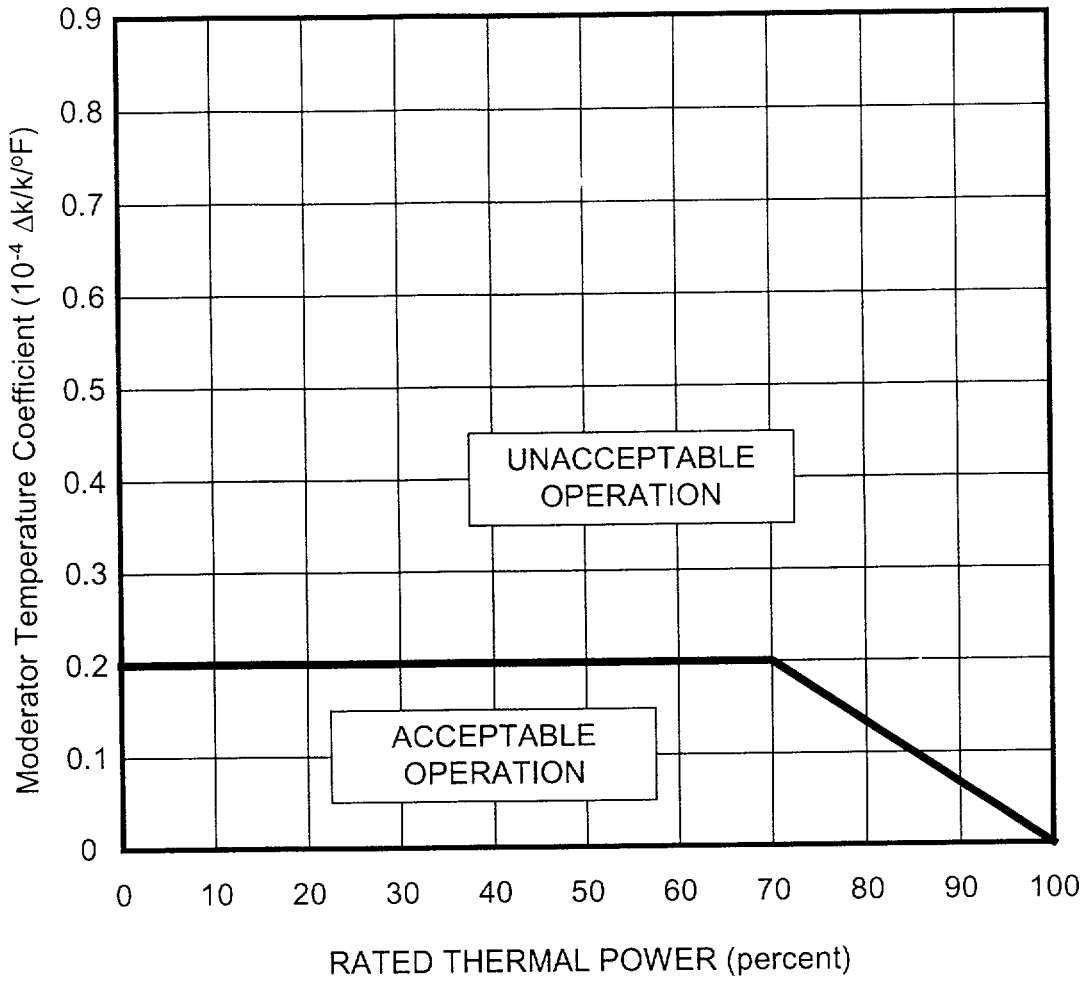


Figure 3.1-1
 Moderator Temperature Coefficient versus Power Level