

2. PRESSURE-TEMPERATURE LIMITS

The Reactor Coolant System (except for the pressurizer) pressure and temperature shall be limited during heatup, cooldown, criticality (except for low power physics tests), and inservice leak and hydrostatic testing in accordance with the limit lines shown on Figures 3.1-1a through 3.1-1b. Allowable pressure-temperature combinations are BELOW AND TO THE RIGHT of the lines on the Figures. Heatup and cooldown rate limits are:

- a. A maximum heatup rate of 100°F in any one hour.
- b. A maximum cooldown rate of 100°F in any one hour.
- c. A maximum temperature change of $\geq 5^\circ\text{F}$ in any one hour during hydrostatic testing operation above system design pressure.

The pressurizer pressure and temperature shall be limited in accordance with the following:

- d. The pressurizer shall be limited to a maximum heatup rate of 100 °F in any one hour, and a maximum cooldown rate of 200 °F in any one hour.
- e. The pressurizer shall be limited to a maximum Reactor Coolant System spray water temperature differential of 320°F.

With any of the above limits exceeded, restore the temperature and/or pressure within the limits within 30 minutes; determine that the RCS or pressurizer remains acceptable for continued operations or, if at power, be in at least Hot Shutdown within the next 6 hours and Cold Shutdown within the following 30 hours.

With reactor power less than 70 percent Rated Thermal Power, the moderator temperature coefficient* shall not be more positive than $+5 \times 10^{-5} \Delta\text{K/K/}^\circ\text{F}$. When this condition is not met, the reactor shall be made subcritical by an amount equal to or greater than the potential reactivity insertion due to depressurization and cooldown.

With reactor power greater than or equal to 70 percent Rated Thermal Power, the moderator temperature coefficient shall not be more positive than $0 \Delta\text{K/K/}^\circ\text{F}$. When this condition is not met, the reactor shall be made subcritical by an amount equal to or greater than the potential reactivity insertion due to depressurization and cooldown.

* These moderator temperature coefficient conditions do not apply to low power physics tests.

