

REACTOR COOLANT SYSTEM

3/4.4.8 PRESSURE/TEMPERATURE LIMITS

REACTOR COOLANT SYSTEM

LIMITING CONDITION FOR OPERATION

3.4.8.1 The Reactor Coolant System (except the pressurizer) temperature and pressure shall be limited in accordance with the limit lines shown on Figures 3.4-2 and 3.4-3 during heatup, cooldown, criticality, and inservice leak and hydrostatic testing with:

- a. A maximum heatup rate of 30°F per hour with Reactor Coolant System cold leg temperature less than 200°F.
- b. A maximum heatup rate of 50°F per hour with Reactor Coolant System cold leg temperature greater than 200°F and less than or equal to 345°F.
- c. A maximum heatup rate of 60°F per hour with Reactor Coolant System cold leg temperature greater than 345°F.
- d. A maximum cooldown rate of 30°F per hour with Reactor Coolant System cold leg temperature less than 110°F.
- e. A maximum cooldown rate of 100°F per hour with Reactor Coolant System cold leg temperature greater than or equal to 110°F.
- f. A maximum temperature change of less than or equal to 10°F in any 1-hour period during inservice hydrostatic and leak testing operations above the heatup and cooldown limit curves.

APPLICABILITY: At all times.

ACTION:

With any of the above limits exceeded, restore the temperature and/or pressure to within the limit within 30 minutes; perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the Reactor Coolant System; determine that the Reactor Coolant System remains acceptable for continued operations or be in at least HOT STANDBY within the next 6 hours and reduce the RCS T_{avg} and pressure to less than 200°F and 500 psia, respectively, within the following 30 hours.

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SURVEILLANCE REQUIREMENTS

4.4.8.1.1 The Reactor Coolant System temperature and pressure shall be determined to be within the limits at least once per 30 minutes during system heatup, cooldown, and inservice leak and hydrostatic testing operations.

4.4.8.1.2 The reactor vessel material irradiation surveillance specimens shall be removed and examined, to determine changes in material properties, at the intervals required by 10 CFR Part 50 Appendix H in accordance with the Reactor Vessel material surveillance program - withdrawal schedule in FSAR Table 5.3-10. The results of these examinations shall be used to update Figures 3.4-2 and 3.4-3.

WATERFORD UNIT 3 COOLDOWN CURVE
 REACTOR COOLANT SYSTEM PRESSURE-TEMPERATURE LIMITS
 0-16 EFY
 CURVE BASIS: PEAK SURFACE FLUENCE = 2.29×10^{19} n/cm² @ 20 EFY

FIGURE 3-4-3

