ATTACHMENT

Page Changes for Proposed
Technical Specifications Change

3.10   CONTROL ROD AND POWER DISTRIBUTION LIMITS

Applicability

Applies to operation of control rods and hot channel factors during operation.

Objective

To specify limits of control rod movement to assure an acceptable power distribution during power operation, limit worth of individual rods to values analyzed for accident conditions, maintain adequate shutdown margin after a reactor trip and to specify acceptable power limits for power tilt conditions.

Specifications

3.10.1 Shutdown Margin Requirements

a.   With four primary coolant pumps in operation at hot shutdown and above, the shutdown margin shall be 2%.

b.   With less than four primary coolant pumps in operation at hot shutdown and above, the shutdown margin shall be increased to and maintained at ≥ 3.75%.

c.   At less than the hot shutdown condition, boron concentration shall be shutdown boron concentration.

d.   If a control rod cannot be tripped, shutdown margin shall be increased by boration as necessary to compensate for the worth of the withdrawn inoperable rod.

e.   The drop time of each control rod shall be no greater than 2.5 seconds from the beginning of rod motion to 90% insertion.

3.10.2 Individual Rod Worth

a.   The maximum worth of any one rod in the core at rated power shall be equal to or less than 0.6% in reactivity.

b.   The maximum worth of any one rod in the core at zero power shall be equal to or less than 1.2% in reactivity.

3.10.3 Power Distribution Limits

a.   The linear heat generation rate at the peak power Elevation z shall not exceed:

15.28 kW/Ft x $F_A(Z)$ for ENC Fuel Types

14.12 kW/Ft x $F_A(Z)$ for D Type Fuel

where the function $F_A(Z)$ is shown in Figure 3.9. If the power distribution is double peaked, both peaks shall satisfy the criterion. Appropriate consideration shall be given to the following factors:

(1) A flux peaking augmentation factor of 1.0,

(2) A measurement calculational uncertainty factor of 1.10,

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