

3.3 SFSC CRITICALITY CONTROL

3.3.1 Boron Concentration

- LCO 3.3.1 As required by CoC Appendix B, Table 2.1-2, the concentration of boron in the water in the MPC shall meet the following limits for the applicable MPC model and the most limiting fuel assembly array/class and classification to be stored in the MPC:
- a. MPC-24 with one or more fuel assemblies having an initial enrichment greater than the value in Table 2.1-2 for no soluble boron credit and ≤ 5.0 wt% ^{235}U : ≥ 400 ppmb
 - b. MPC-24E or MPC-24EF (all INTACT FUEL ASSEMBLIES) with one or more fuel assemblies having an initial enrichment greater than the value in Table 2.1-2 for no soluble boron credit and ≤ 5.0 wt% ^{235}U : ≥ 300 ppmb
 - c. Deleted.
 - d. Deleted.
 - e. MPC-24E or MPC-24EF (one or more DAMAGED FUEL ASSEMBLIES or FUEL DEBRIS) with one or more fuel assemblies having an initial enrichment > 4.0 wt% ^{235}U and ≤ 5.0 wt% ^{235}U : ≥ 600 ppmb
 - f. MPC-32/32F: Minimum soluble boron concentration as required by the table below.

Array/Class	All INTACT FUEL ASSEMBLIES		One or more DAMAGED FUEL ASSEMBLIES or FUEL DEBRIS	
	Initial Enrichment ≤ 4.1 wt% ^{235}U (ppmb)	Initial Enrichment > 4.1 wt% and ≤ 5.0 wt% ^{235}U (ppmb)	Initial Enrichment ≤ 4.1 wt% ^{235}U (ppmb)	Initial Enrichment > 4.1 wt% and ≤ 5.0 wt% ^{235}U (ppmb)
14x14A/B/C/D/E	1,300	1,900	1,500	2,300
15x15A/B/C/G	1,800	2,500	1,900	2,700
15x15D/E/F/H	1,900	2,600	2,100	2,900
16x16A	1,300	1,900	1,500	2,300
17x17A/B/C	1,900	2,600	2,100	2,900

APPLICABILITY: During PWR fuel LOADING OPERATIONS with fuel and water in the MPC

AND

During PWR fuel UNLOADING OPERATIONS with fuel and water in the MPC.

ACTIONS

-----NOTE-----

Separate Condition entry is allowed for each MPC.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Boron concentration not within limit.	A.1 Suspend LOADING OPERATIONS or UNLOADING OPERATIONS.	Immediately
	<u>AND</u>	
	A.2 Suspend positive reactivity additions.	Immediately
	<u>AND</u>	
	A.3 Initiate action to restore boron concentration to within limit.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
-----NOTE----- This surveillance is only required to be performed if the MPC is submerged in water or if water is to be added to, or recirculated through the MPC.	Once, within 4 hours prior to entering the Applicability of this LCO.
SR 3.3.1.1 Verify boron concentration is within the applicable limit using two independent measurements.	<u>AND</u> Once per 48 hours thereafter.