

TABLE OF CONTENTS

3.4	REACTOR COOLANT SYSTEM (RCS)	
3.4.1	RCS Pressure, Temperature, and Flow Departure from Nucleate Boiling (DNB) Limits	3.4.1-1
3.4.2	RCS Minimum Temperature for Criticality	3.4.2-1
3.4.3	RCS Pressure and Temperature (P/T) Limits	3.4.3-1
3.4.4	RCS Loops — MODE 1 > 8.5% RTP	3.4.4-1
3.4.5	RCS Loops — MODES 1 ≤ 8.5% RTP, 2, and 3	3.4.5-1
3.4.6	RCS Loops — MODE 4	3.4.6-1
3.4.7	RCS Loops — MODE 5, Loops Filled	3.4.7-1
3.4.8	RCS Loops — MODE 5, Loops Not Filled	3.4.8-1
3.4.9	Pressurizer	3.4.9-1
3.4.10	Pressurizer Safety Valves	3.4.10-1
3.4.11	Pressurizer Power Operated Relief Valves (PORVs)	3.4.11-1
3.4.12	Low Temperature Overpressure Protection (LTOP) System	3.4.12-1
3.4.13	RCS Operational LEAKAGE	3.4.13-1
3.4.14	RCS Pressure Isolation Valve (PIV) Leakage	3.4.14-1
3.4.15	RCS Leakage Detection Instrumentation	3.4.15-1
3.4.16	RCS Specific Activity	3.4.16-1
3.5	EMERGENCY CORE COOLING SYSTEMS (ECCS)	
3.5.1	Accumulators	3.5.1-1
3.5.2	ECCS — MODES 1, 2, and 3	3.5.2-1
3.5.3	ECCS — MODE 4	3.5.3-1
3.5.4	Refueling Water Storage Tank (RWST)	3.5.4-1
3.6	CONTAINMENT SYSTEMS	
3.6.1	Containment	3.6.1-1
3.6.2	Containment Air Locks	3.6.2-1
3.6.3	Containment Isolation Boundaries	3.6.3-1
3.6.4	Containment Pressure	3.6.4-1
3.6.5	Containment Air Temperature	3.6.5-1
3.6.6	Containment Spray (CS), Containment Recirculation Fan Cooler (CRFC), NaOH, and Containment Post-Accident Charcoal Systems	3.6.6-1
3.6.7	Hydrogen Recombiners	3.6.7-1
3.7	PLANT SYSTEMS	
3.7.1	Main Steam Safety Valves (MSSVs)	3.7.1-1
3.7.2	Main Steam Isolation Valves (MSIVs) and Non-Return Check Valves	3.7.2-1
3.7.3	Main Feedwater Regulating Valves (MFRVs), Associated Bypass Valves, and Feedwater Pump Discharge Valves (MFPDVs)	3.7.3-1

TABLE OF CONTENTS

3.7	PLANT SYSTEMS (continued)	
3.7.4	Atmospheric Relief Valves (ARVs)	3.7.4-1
3.7.5	Auxiliary Feedwater (AFW) System	3.7.5-1
3.7.6	Condensate Storage Tanks (CSTs)	3.7.6-1
3.7.7	Component Cooling Water (CCW) System	3.7.7-1
3.7.8	Service Water (SW) System	3.7.8-1
3.7.9	Control Room Emergency Air Treatment System (CREATS)	3.7.9-1
3.7.10	Auxiliary Building Ventilation System (ABVS)	3.7.10-1
3.7.11	Spent Fuel Pool (SFP) Water Level	3.7.11-1
3.7.12	Spent Fuel Pool (SFP) Boron Concentration	3.7.12-1
3.7.13	Spent Fuel Pool (SFP) Storage	3.7.13-1
3.7.14	Secondary Specific Activity	3.7.14-1
3.8	ELECTRICAL POWER SYSTEMS	
3.8.1	AC Sources — MODES 1, 2, 3, and 4	3.8.1-1
3.8.2	AC Sources — MODES 5 and 6	3.8.2-1
3.8.3	Diesel Fuel Oil	3.8.3-1
3.8.4	DC Sources — MODES 1, 2, 3, and 4	3.8.4-1
3.8.5	DC Sources — MODES 5 and 6	3.8.5-1
3.8.6	Battery Cell Parameters	3.8.6-1
3.8.7	AC Instrument Bus Sources — MODES 1, 2, 3, and 4	3.8.7-1
3.8.8	AC Instrument Bus Sources — MODES 5 and 6	3.8.8-1
3.8.9	Distribution Systems — MODES 1, 2, 3, and 4	3.8.9-1
3.8.10	Distribution Systems — MODES 5 and 6	3.8.10-1
3.9	REFUELING OPERATIONS	
3.9.1	Boron Concentration	3.9.1-1
3.9.2	Nuclear Instrumentation	3.9.2-1
3.9.3	Containment Penetrations	3.9.3-1
3.9.4	Residual Heat Removal (RHR) and Coolant Circulation — Water Level \geq 23 Ft	3.9.4-1
3.9.5	Residual Heat Removal (RHR) and Coolant Circulation — Water Level $<$ 23 Ft	3.9.5-1
3.9.6	Refueling Cavity Water Level	3.9.6-1
4.0	DESIGN FEATURES	
4.1	Site Location	4.1-1
4.2	Reactor Core	4.2-1
4.3	Fuel Storage	4.3-1

3.1 REACTIVITY CONTROL SYSTEMS

3.1.3 Moderator Temperature Coefficient (MTC)

LCO 3.1.3 The MTC shall be maintained within the limits specified in the COLR. The maximum upper limit shall be less than or equal to 5 pcm/°F for power levels below 70% RTP and less than or equal to 0 pcm/°F at or above 70% RTP.

APPLICABILITY: MODE 1 and MODE 2 with $k_{eff} \geq 1.0$ for the upper MTC limit, MODES 1, 2, and 3 for the lower MTC limit.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. MTC not within upper limit.	A.1 Establish administrative withdrawal limits for control banks to maintain MTC within limit.	24 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1 Be in MODE 2 with $k_{eff} < 1.0$.	6 hours
C. ----- - NOTE - Required Action C.1 must be completed whenever Condition C is entered. ----- Projected end of cycle life (EOL) MTC not within lower limit.	----- - NOTE - LCO 3.0.4 is not applicable. ----- C.1 Re-evaluate core design and safety analysis, and determine that the reactor core is acceptable for continued operation.	Once prior to reaching the equivalent of an equilibrium RTP all rods out (ARO) boron concentration of 300 ppm
D. Required Action and associated Completion Time of Condition C not met.	D.1 Be in MODE 4.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.3.1	Verify MTC is within upper limit.	Once prior to entering MODE 1 after each refueling
SR 3.1.3.2	Confirm that MTC will be within limits at 70% RTP.	Once prior to entering MODE 1 after each refueling
SR 3.1.3.3	Confirm that MTC will be within limits at EOL.	Once prior to entering MODE 1 after each refueling.