3.7 PLANT SYSTEMS

3.7.1 Main Steam Safety Valves (MSSVs)

LCO 3.7.1 Two MSSVs per steam generator shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One MSSV inoperable.	A.1 Verify associated Main Steam Relief Train is OPERABLE.	Immediately
B. Required Action and associated Completion Time of Condition A not met. OR Two or more MSSVs inoperable.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	6 hours 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.1.1	----------NOTE---------- Only required to be performed in MODES 1 and 2. ----------	
	Verify, for each steam generator, one MSSV lift setpoint of ≥ [1416] psig and ≤ [1503] psig and other MSSV lift setpoint of ≥ [1445] psig and ≤ [1534] psig in accordance with the Inservice Testing Program. Following testing, lift setting shall be within ± 1%.	In accordance with the Inservice Testing Program

3.7 PLANT SYSTEMS

3.7.2 Main Steam Isolation Valves (MSIVs)

LCO 3.7.2 Four MSIVs shall be OPERABLE.

APPLICABILITY: MODE 1,
MODES 2 and 3 except when all MSIVs are closed and deactivated.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more MSIVs inoperable due to one associated control line inoperable in MODE 1.	A.1 Restore control line(s) to OPERABLE status.	72 hours
B. One MSIV is inoperable in MODE 1 for reasons other than Condition A.	B.1 Restore MSIV to OPERABLE status.	8 hours
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 2.	6 hours
D. ----------NOTE---------- Separate Condition entry is allowed for each MSIV. ---------- One or more MSIVs inoperable in MODE 2 or 3.	D.1 Close MSIV. AND D.2 Verify MSIV is closed.	8 hours Once per 7 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Required Action and associated Completion Time of Condition D not met.	E.1 Be in MODE 3. AND E.2 Be in MODE 4.	6 hours 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.2.1	Cycle each MSIV pilot valve.	31 days
SR 3.7.2.2	----------NOTE---------- Only required to be performed in MODES 1 and 2. ---------- Perform a partial closure test of each MSIV.	 92 days
SR 3.7.2.3	----------NOTE---------- Only required to be performed in MODES 1 and 2. ---------- Verify the isolation time of each MSIV is within limits.	 In accordance with the Inservice Testing Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.2.4	----------NOTE---------- Only required to be performed in MODES 1 and 2. ----------	
	Verify each MSIV actuates to the isolation position on an actual or simulated actuation signal.	24 months on a STAGGERED TEST BASIS for each control line

3.7 PLANT SYSTEMS

3.7.3 Main Feedwater (MFW) Valves

LCO 3.7.3 Four MFW Full Load Isolation Valves (MFWFLIVs), MFW Full Load Control Valves (MFWFLCVs), MFW Low Load Isolation Valves (MFWLLIVs), MFW Low Load Control Valves (MFWLLCVs), and MFW Very Low Load Control Valves (MFWVLLCVs) shall be OPERABLE.

APPLICABILITY: MODE 1,
MODES 2 and 3 except when MFW valves are closed and deactivated.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each MFW flow path.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or more full load flow paths with one MFW valve inoperable.	A.1	Close or isolate the affected MFW full load flow path.	72 hours
	AND		
	A.2	Verify the affected MFW full load flow path is closed or isolated.	Once per 7 days
B. Two valves in the same full load flow path inoperable.	B.1	Isolate the affected MFW full load flow path.	8 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more low load or very low load flow paths with one or more MFWLLIV, MFWLLCV, or MFWVLLCV valves inoperable.	C.1 Isolate the affected flow path. AND C.2 Verify the flow path is isolated.	8 hours 7 days
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3. AND D.2 Be in MODE 4.	6 hours 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.3.1	Verify the isolation time of each MFWFLIV, MFWFLCV, MFWLLIV, MFWLLCV, and MFWVLLCV is within limits.	In accordance with the Inservice Testing Program
SR 3.7.3.2	Verify each MFWFLIV, MFWFLCV, MFWLLIV, MFWLLCV, and MFWVLLCV actuates to the isolation position on an actual or simulated actuation signal.	24 months

3.7 PLANT SYSTEMS

3.7.4 Main Steam Relief Trains (MSRTs)

LCO 3.7.4 Four MSRTs shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more MSRIVs inoperable due to one or both pilot valves in one control line inoperable for opening. OR One or more required MSRIVs inoperable due to one pilot valve open in one or both control lines.	A.1 Restore pilot valve(s) to OPERABLE status.	30 days
B. One MSRT inoperable for opening. .	B.1 Verify associated main steam safety valve(s) are OPERABLE. AND B.2 Restore MSRT to OPERABLE status.	Immediately 72 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Times of Condition A or B not met. OR Two or more required MSRTs inoperable. OR Two or more required MSRCVs inoperable.	C.1 Be in MODE 3. AND C.2 Be in MODE 4 without reliance on steam generators for heat removal.	6 hours 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.4.1	Verify one complete cycle of each MSRIV.	24 months on STAGGERED TEST BASIS for each control line
SR 3.7.4.2	Verify one complete cycle of each MSRCV.	24 months
SR 3.7.4.3	Verify each MSRIV automatically actuates on an actual or simulated steam pressure setpoints.	24 months
SR 3.7.4.4	Verify each MSRCV is automatically positioned on an actual or simulated actuation signal.	24 months

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.4.5	Verify each MSRCV is automatically switched into steam generator pressure control mode on an actual or simulated MSRIV opening signal.	24 months

3.7 PLANT SYSTEMS

3.7.5 Emergency Feedwater (EFW) System

LCO 3.7.5 Four EFW pump trains along with the downstream injection pathways and common supply and discharge headers shall be OPERABLE.

----------NOTE----------
Only two EFW pump trains are required to be OPERABLE in MODE 4.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

----------NOTE----------
LCO 3.0.4.b is not applicable for two or more EFW pump trains inoperable when entering MODE 1.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One EFW pump train inoperable in MODE 1, 2, or 3.	A.1	Restore EFW pump train to OPERABLE status.	120 days
B. Two EFW pump trains inoperable in MODE 1, 2, or 3.	B.1	Restore one EFW pump train to OPERABLE status.	72 hours
C. Downstream injection pathway or common supply or discharge header inoperable.	C.1	Restore the injection pathway and common supply and discharge headers to OPERABLE status.	72 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time for Condition A, B , or C not met. OR Three EFW pump trains inoperable in MODE 1, 2, or 3.	D.1 Be in MODE 3. AND D.2 Be in MODE 4.	6 hours 12 hours
E. Four EFW pump trains inoperable in MODE 1, 2, or 3.	E.1 ----------NOTE---------- LCO 3.0.3 and all other LCO Required Actions requiring MODE changes are suspended until one EFW pump train is restored to OPERABLE status. ---------- Initiate action to restore one EFW pump train to OPERABLE status.	 Immediately
F. One of the two required EFW pump trains inoperable in MODE 4 when a steam generator is relied on for heat removal.	F.1 Restore required EFW pump train to OPERABLE status. OR F.2 Be in MODE 4 without reliance on steam generator for heat removal.	72 hours 96 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.5.1	Verify each EFW manual, power operated, and automatic valve in each water flow path that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.5.2	Cycle each EFW discharge header cross-connect valve.	In accordance with the Inservice Testing Program
SR 3.7.5.3	Verify the developed head of each EFW pump at the flow test point is greater than or equal to the required developed head.	In accordance with the Inservice Testing Program
SR 3.7.5.4	Verify, on an actual or simulated actuation signal, each EFW automatic valve that is not locked, sealed, or otherwise secured in position actuates to the correct position.	24 months
SR 3.7.5.5	Verify proper alignment of the required EFW flow paths by verifying flow from the EFW storage pool to its respective steam generator.	Prior to entering MODE 2 whenever unit has been in MODE 5, MODE 6, or defueled for a cumulative period of > 30 days

3.7 PLANT SYSTEMS

3.7.6 Emergency Feedwater (EFW) Storage Pools

LCO 3.7.6 Four EFW Storage Pools shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or more EFW Storage Pools inoperable.	A.1	Declare associated EFW pump train inoperable.	Immediately
	AND		
	A.2	Verify by administrative means, the availability of the back-up water supplies.	4 hours AND
	AND		Once per 12 hours thereafter
	A.3	Restore EFW Storage Pools to OPERABLE status.	7 days
B. Required Action and associated Completion Time not met.	B.1	Be in MODE 3.	6 hours
	AND		
	B.2	Be in MODE 4, without reliance on steam generator for heat removal.	24 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.6.1	Verify the EFW Storage Pools contain a usable volume ≥ 365,000 gal.	24 hours
SR 3.7.6.2	Verify each EFW Storage Pool supply cross connect valve is closed.	31 days

3.7 PLANT SYSTEMS

3.7.7 Component Cooling Water (CCW) System

LCO 3.7.7 Four CCW trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

----------NOTE----------
Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops - MODE 4," for residual heat removal loops made inoperable by CCW System.

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One CCW train inoperable.	A.1	----------NOTE---------- Required Action A.1 is not applicable if CCW trains are inoperable in both CCW headers supplying the reactor coolant pump (RCP) thermal barrier cooling common loop and Condition B is entered. --- Align RCP thermal barrier cooling common loop to the CCW header with two OPERABLE CCW trains.	72 hours
	AND		
	A.2	Restore CCW train to OPERABLE status.	120 days
B. Two CCW trains inoperable.	B.1	Restore one CCW train to OPERABLE status.	72 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. AND C.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.7.1	----------NOTE---------- Isolation of CCW flow to individual components, other than the RCP thermal barrier cooling common loop, does not render the CCW System inoperable. ---------- Verify each CCW manual, power operated, and automatic valve in the flow path servicing safety related equipment, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.7.2	Verify each CCW automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.7.7.3	Verify each CCW pump starts automatically on an actual or simulated actuation signal.	24 months

3.7 PLANT SYSTEMS

3.7.8 Essential Service Water (ESW) System

LCO 3.7.8 Four ESW trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

----------NOTES----------

1. Enter applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources - Operating," for emergency diesel generators made inoperable by ESW System.

2. Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loop - MODE 4," for residual heat removal loops made inoperable by ESW System.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One ESW train inoperable.	A.1 Restore ESW train to OPERABLE status.	120 days
B. Two ESW trains inoperable.	B.1 Restore one ESW train to OPERABLE status.	72 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. AND C.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.8.1	----------NOTE---------- Isolation of ESW flow to individual components does not render the ESW System inoperable. ---------- Verify each ESW manual, power operated, and automatic valve in the flow path servicing safety related equipment, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.8.2	Verify each ESW automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.7.8.3	Verify each ESW pump starts automatically on an actual or simulated actuation signal.	24 months

3.7 PLANT SYSTEMS

3.7.9 Safety Chilled Water (SCW) System

LCO 3.7.9 Four SCW trains shall be OPERABLE and in operation.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One SCW train inoperable.	A.1 Restore SCW train to OPERABLE status.	30 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.7.9.1	----------NOTE---------- Isolation of SCW flow to individual components does not render the SCW System inoperable. ---------- Verify each SCW manual, power operated, and automatic valve in the flow path servicing safety related equipment, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.9.2	Verify, on an actual or simulated loss of offsite power signal, each SCW train restarts following re-energization of the associated AC electrical power division.	24 months

3.7 PLANT SYSTEMS

3.7.10 Control Room Emergency Filtration (CREF)

LCO 3.7.10 Two CREF trains shall be OPERABLE.

----------NOTE----------
The control room envelope (CRE) may be opened intermittently under administrative control.

APPLICABILITY: MODES 1, 2, 3, 4, 5, and 6,
During movement of irradiated fuel assemblies.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One CREF train inoperable for reasons other than Condition B.	A.1	Restore CREF train to OPERABLE status.	7 days
B. One or more CREF trains inoperable due to inoperable CRE boundary in MODE 1, 2, 3, or 4.	B.1	Initiate action to implement mitigating actions.	Immediately
	AND		
	B.2	Verify mitigating actions ensure CRE occupant exposures to radiological, chemical, and smoke hazards will not exceed limits.	24 hours
	AND		
	B.3	Restore CRE boundary to OPERABLE status.	60 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, 3, or 4.	C.1	Be in MODE 3.	6 hours
	AND		
	C.2	Be in MODE 5.	36 hours
D. Required Action and associated Completion Time of Condition A not met in MODE 5 or 6, or during movement of irradiated fuel assemblies.	D.1	----------NOTE---------- Place CREF train in toxic gas isolation state if automatic transfer to toxic gas isolation state is inoperable. ----------	
		Place OPERABLE CREF train in emergency mode.	Immediately
	OR		
	D.2	Suspend movement of irradiated fuel assemblies.	Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Two CREF trains inoperable in MODE 5 or 6, or during movement of irradiated fuel assemblies. OR One or more CREF trains inoperable due to an inoperable CRE boundary in MODE 5 or 6, or during movement of irradiated fuel assemblies.	E.1 Suspend movement of irradiated fuel assemblies.	Immediately
F. Two CREF trains inoperable in MODE 1, 2, 3, or 4 for reasons other than Condition B.	F.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.10.1	Operate each CREF train for ≥ 15 minutes with the heaters operating.	31 days
SR 3.7.10.2	Perform required CREF filter train testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.10.3	Verify each CREF train actuates on an actual or simulated actuation signal.	24 months
SR 3.7.10.4	Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program

3.7 PLANT SYSTEMS

3.7.11 Control Room Air Conditioning System (CRACS)

LCO 3.7.11 Four CRACS trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, 4, 5, and 6,
During movement of irradiated fuel assemblies.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One CRACS trains inoperable.	A.1	Restore CRACS train to OPERABLE status.	120 days
B. Two CRACS trains inoperable.	B.1	Restore one inoperable CRACS train to OPERABLE status.	30 days
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, 3, or 4.	C.1 AND C.2	Be in MODE 3. Be in MODE 5.	6 hours 36 hours
D. Required Action and associated Completion Time of Condition A not met in MODE 5 or 6, or during movement of irradiated fuel assemblies.	D.1 OR D.2	Place OPERABLE CRACS train in operation. Suspend movement of irradiated fuel assemblies.	Immediately Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Three or more CRACS trains inoperable in MODE 5 or 6 or during movement of irradiated fuel assemblies.	E.1 Suspend movement of irradiated fuel assemblies.	Immediately
F. Three or more CRACS trains inoperable in MODE 1, 2, 3, or 4.	F.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.11.1	Verify each CRACS train has the capability to remove the design heat load.	24 months

3.7 PLANT SYSTEMS

3.7.12 Safeguard Building Controlled Area Ventilation System (SBVS)

LCO 3.7.12 Two SBVS Accident Exhaust Filtration trains shall be OPERABLE.

----------NOTE----------
The safeguard building controlled areas and fuel building boundaries may be opened intermittently under administrative control.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One SBVS Accident Exhaust Filtration train inoperable.	A.1	Restore SBVS Accident Exhaust Filtration train to OPERABLE status.	7 days
B. Two SBVS Accident Exhaust trains inoperable due to inoperable safeguard building controlled areas or fuel building boundary.	B.1	Restore safeguard building controlled areas and fuel building boundaries to OPERABLE status.	24 hours
C. Required Action and associated Completion Time of Condition A or B not met. OR Two SBVS Accident Exhaust Filtration trains inoperable for reasons other than Condition B.	C.1 AND C.2	Be in MODE 3. Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.12.1	Verify safeguard building controlled areas and fuel building negative pressure is ≥ 0.25 inches water gauge.	12 hours
SR 3.7.12.2	Verify each safeguard building controlled areas and fuel building access door is closed, except when the access opening is being used for entry and exit.	31 days
SR 3.7.12.3	Operate each SBVS Accident Exhaust Filtration train for ≥ 15 minutes with the heaters operating.	31 days
SR 3.7.12.4	Perform required SBVS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.12.5	Verify each SBVS Accident Exhaust Filtration train actuates on an actual or simulated actuation signal.	24 months
SR 3.7.12.6	Verify the safeguard building controlled areas and fuel building can be drawn down to a negative pressure ≥ 0.25 inches water gauge in ≤ 305 seconds after a start signal using one SBVS Accident Exhaust Filtration train.	24 months on a STAGGERED TEST BASIS for each SBVS Accident Exhaust Filtration train
SR 3.7.12.7	Verify the safeguard building controlled areas and fuel building can be maintained at a negative pressure ≥ 0.25 inches water gauge using one SBVS Accident Exhaust Filtration train at a flow rate of ≤ 2640 cfm.	24 months on a STAGGERED TEST BASIS for each SBVS Accident Exhaust Filtration train

3.7 PLANT SYSTEMS

3.7.13 Safeguards Building Ventilation System Electrical Division (SBVSED)

LCO 3.7.13 Four SBVSED trains shall be OPERABLE and in operation.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One SBVSED train inoperable or not in operation.	A.1	Restore SBVSED train to OPERABLE status and in operation.	72 hours
B. Required Action and associated Completion Time not met.	B.1	Be in MODE 3.	6 hours
	AND		
	B.2	Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.13.1	Verify each SBVSED train is in operation.	24 hours
SR 3.7.13.2	Verify each SBVSED train has the capability to remove the design heat load.	24 months
SR 3.7.13.3	Verify, on an actual or simulated loss of offsite power signal, each SBVSED train restarts following re-energization of the associated AC electrical power division.	24 months

3.7 PLANT SYSTEMS

3.7.14 Spent Fuel Pool Water Level

LCO 3.7.14 The spent fuel pool water level shall be ≥ 23 ft over the top of irradiated fuel assemblies seated in the storage racks.

APPLICABILITY: During movement of irradiated fuel assemblies in the spent fuel pool.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Spent fuel pool water level not within limit.	A.1 ----------NOTE---------- LCO 3.0.3 is not applicable. ---------- Suspend movement of irradiated fuel assemblies in the spent fuel pool.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.14.1	Verify the spent fuel pool water level is ≥ 23 ft above the top of the irradiated fuel assemblies seated in the storage racks.	7 days

3.7 PLANT SYSTEMS

3.7.15 Spent Fuel Pool Boron Concentration and Enrichment

LCO 3.7.15 The spent fuel pool boron concentration shall be ≥ 1700 ppm enriched boron.

APPLICABILITY: When fuel assemblies are stored in the spent fuel pool and a spent fuel pool verification has not been performed since the last movement of fuel assemblies in the spent fuel pool.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Spent fuel pool boron concentration or enrichment not within limit.	----------NOTE---------- LCO 3.0.3 is not applicable. ----------	
	A.1 Suspend movement of fuel assemblies in the spent fuel pool.	Immediately
	AND	
	A.2.1 Initiate action to restore spent fuel pool boron concentration and enrichment to within limits.	Immediately
	OR	
	A.2.2 Initiate action to perform a spent fuel pool verification.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.15.1	Verify the spent fuel pool boron concentration is within limit.	7 days
SR 3.7.15.2	Verify the isotopic concentration of B-10 in the spent fuel pool is ≥ 37%.	24 months

3.7 PLANT SYSTEMS

3.7.16 Spent Fuel Storage

LCO 3.7.16 The combination of initial enrichment and burnup of each new or spent fuel assembly stored in the spent fuel storage racks shall be within the following configurations:

a. New or irradiated fuel assemblies may be allowed for unrestricted storage in Region 1 of the spent fuel pool provided the maximum initial enrichment of the fuel assembly is ≤ 5.0 wt% U-235; or

b. New or irradiated fuel assemblies may be stored in Region 2 of the spent fuel pool in accordance with these limits:

1. Irradiated fuel assemblies may be stored in any storage rack location in Region 2 provided the combination of burnup and initial enrichment is in the acceptable range of Figure 3.7.16-1; or

2. New or irradiated fuel assemblies with a combination of burnup and initial enrichment that are not in the acceptable range of Figure 3.7.16-1 may be stored in Region 2 in a checkerboard arrangement (rack location is surrounded on all four adjacent faces by empty rack cells or other non-reactive materials).

APPLICABILITY: Whenever any fuel assembly is stored in the spent fuel pool.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Requirements of the LCO not met.	A.1 ----------NOTE---------- LCO 3.0.3 is not applicable. ---------- Initiate action to move the noncomplying fuel assembly to the correct location.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.16.1	Verify by administrative means the planned spent fuel pool location is acceptable for the fuel assembly being stored.	Prior to storing the fuel assembly in the spent fuel pool

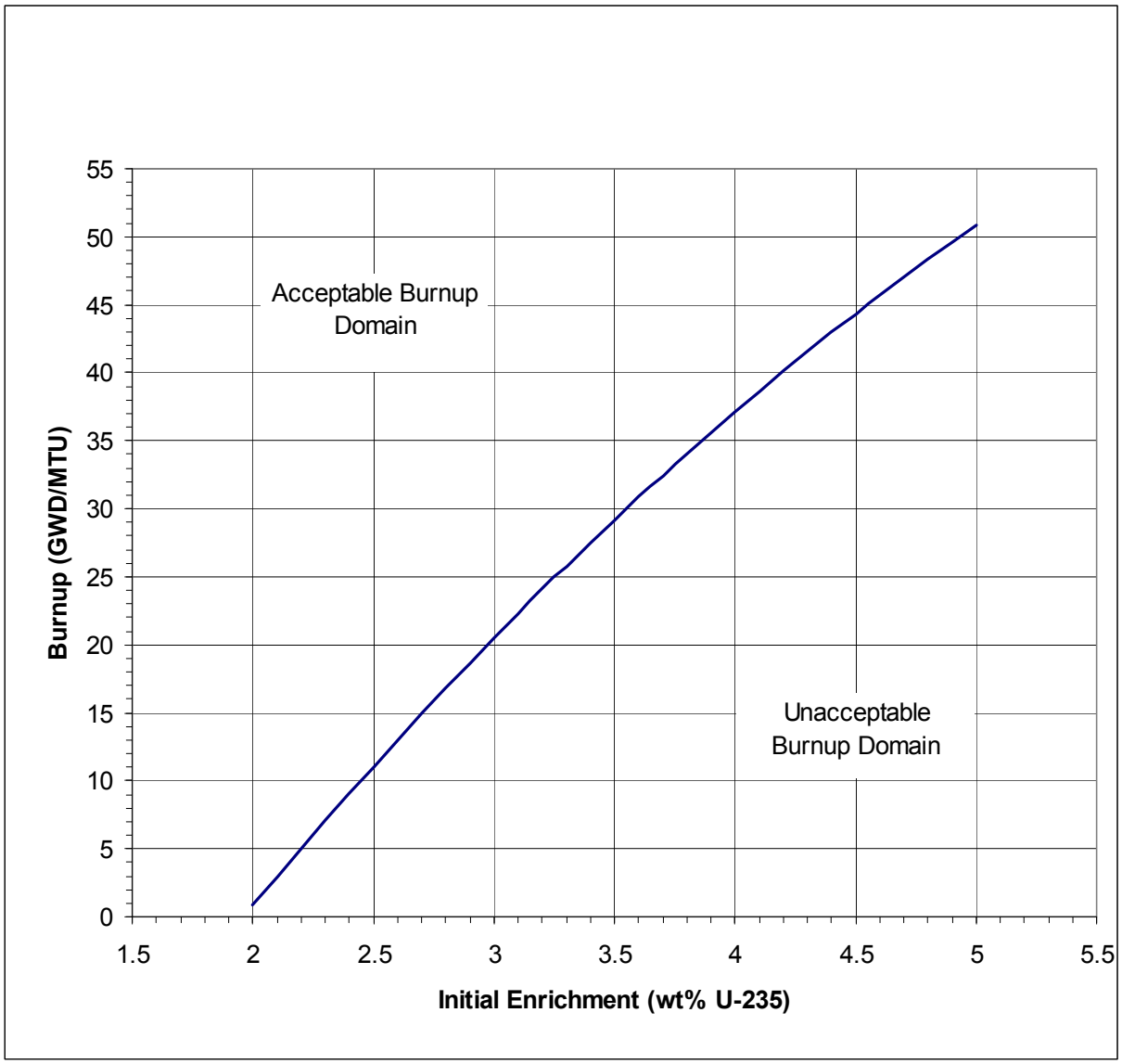

Figure 3.7.16-1
Fuel Assembly Burnup Versus Initial Enrichment for Region 2 Storage

3.7 PLANT SYSTEMS

3.7.17 Secondary Specific Activity

LCO 3.7.17 The specific activity of the secondary coolant shall be ≤ 0.10 µCi/gm DOSE EQUIVALENT I-131.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Specific activity not within limit.	A.1	Be in MODE 3.	6 hours
	AND		
	A.2	Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.17.1	Verify the specific activity of the secondary coolant is ≤ 0.10 µCi/gm DOSE EQUIVALENT I-131.	31 days

3.7 PLANT SYSTEMS

3.7.18 Main Steam Line Leakage

LCO 3.7.18 Main Steam Line leakage through the pipe walls inside containment shall be limited to 1.0 gpm.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Main Steam Line leakage exceeds operational limit.	A.1 Be in MODE 3. AND A.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.18.1	Verify main steam line leakage into the containment sump ≤ 1.0 gpm.	72 hours

3.7 PLANT SYSTEMS

3.7.19 Ultimate Heat Sink (UHS)

LCO 3.7.19 Four UHS trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One UHS cooling tower inoperable.	A.1	Restore UHS cooling tower to OPERABLE status.	120 days
B. Two UHS cooling towers inoperable.	B.1	Restore one UHS cooling tower to OPERABLE status.	72 hours
C. Required Action and associated Completion Time not met.	C.1	Be in MODE 3.	6 hours
	AND		
	C.2	Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.19.1	Verify water level of each UHS cooling tower basin is ≥ 23.75 feet.	24 hours
SR 3.7.19.2	Verify water temperature of each UHS cooling tower basin is ≤ 90°F.	24 hours
SR 3.7.19.3	Operate each UHS cooling tower fan for ≥ 15 minutes in each speed setting and direction, including reverse.	31 days
SR 3.7.19.4	Verify each UHS cooling tower fan starts automatically on an actual or simulated actuation signal.	24 months
SR 3.7.19.5	Verify the ability to supply makeup water to each UHS cooling tower basin at ≥ 300 gpm.	24 months
SR 3.7.19.6	Verify each UHS automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	24 months