

### 3.7 PLANT SYSTEMS

#### 3.7.1 Main Steam Safety Valves (MSSVs)

LCO 3.7.1 Two MSSVs per steam generator shall be OPERABLE.

-----NOTE-----  
 Only one MSSV per steam generator is required to be OPERABLE in  
 MODE 4 when steam generator is relied upon for heat removal.  
 -----

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 required MSSV inoperable.	A.1 Verify associated Main Steam Relief Train is OPERABLE.	Immediately
	<u>AND</u> A.2 Reduce power to less than 75% RTP.	4 hours
B. Required Action and associated Completion Time of Condition A not met.  <u>OR</u> Two or more required MSSVs inoperable.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 4 without reliance upon steam generator for heat removal.	24 hours

SURVEILLANCE REQUIREMENTS

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

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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.  <u>AND</u>  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.	6 hours
	<u>AND</u> E.2 Be in MODE 4.	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
<p>SR 3.7.2.4</p> <p>-----NOTE-----            Only required to be performed in MODES 1 and 2.            -----</p> <p>Verify each MSIV actuates to the isolation position on an actual or simulated actuation signal.</p>	<p>24 months on a STAGGERED TEST BASIS for each control line</p>

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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.  
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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
	<u>AND</u> 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.	8 hours
	<u>AND</u> C.2 Verify the flow path is isolated.	7 days
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3.	6 hours
	<u>AND</u> D.2 Be in MODE 4.	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

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3.7.4 Main Steam Relief Trains (MSRTs)

LCO 3.7.4 Four MSRTs shall be OPERABLE.

-----NOTE-----  
Only two MSRTs are required to be OPERABLE in MODE 4 when steam generator is relied upon for heat removal.  
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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.	A.1 Restore pilot valve(s) to OPERABLE status.	72 hours
B. One or more required MSRIVs inoperable due to one pilot valve open in one or both control lines.	B.1 Restore pilot valve(s) to OPERABLE status.	30 days



ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>C. One required MSRT inoperable for opening.</p>	<p>C.1 Verify associated main steam safety valve(s) are OPERABLE.</p> <p><u>AND</u></p> <p>C.2 Reduce power to less than 50% RTP.</p> <p><u>AND</u></p> <p>C.3 Restore MSRT to OPERABLE status.</p>	<p>Immediately</p> <p>4 hours</p> <p>72 hours</p>
<p>D. Required Action and associated Completion Times of Condition A, B, or C not met.</p> <p><u>OR</u></p> <p>Two or more required MSRTs inoperable.</p>	<p>D.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>D.2 Be in MODE 4 without reliance upon steam generator for heat removal.</p>	<p>6 hours</p> <p>24 hours</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.4.1	Verify one complete cycle of each MSRIV.	In accordance with the Inservice Testing Program
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
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

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3.7.5 Emergency Feedwater (EFW) System

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

-----NOTE-----  
Only two EFW pump trains are required to be OPERABLE in MODE 4 when steam generator is relied upon for heat removal.  
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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.  
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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 supply or discharge header inoperable.	C.1 Restore the injection pathway and supply and discharge headers to OPERABLE status.	8 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>D. Required Action and associated Completion Time for Condition A, B , or C not met.</p> <p><u>OR</u></p> <p>Three EFW pump trains inoperable in MODE 1, 2, or 3.</p>	<p>D.1 Be in MODE 3.</p> <p><u>AND</u></p> <p>D.2 Be in MODE 4 without reliance upon steam generator for heat removal.</p>	<p>6 hours</p> <p>24 hours</p>
<p>E. Four EFW pump trains inoperable in MODE 1, 2, or 3.</p>	<p>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. -----</p> <p>Initiate action to restore one EFW pump train to OPERABLE status.</p>	<p>Immediately</p>
<p>F. One of the two required EFW pump trains inoperable in MODE 4 when steam generator is relied upon for heat removal.</p>	<p>F.1 Restore required EFW pump train to OPERABLE status.</p> <p><u>OR</u></p> <p>F.2 Be in MODE 4 without reliance upon steam generator for heat removal.</p>	<p>72 hours</p> <p>96 hours</p>

**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 and each EFW pump starts automatically.	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

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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
	<u>AND</u>	
	A.2 Verify by administrative means, the availability of the back-up water supply.	4 hours <u>AND</u> Once per 12 hours thereafter
	<u>AND</u>	
	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
	<u>AND</u>	
	B.2 Be in MODE 4 without reliance upon 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 $\geq$ 365,000 gal.	24 hours
SR 3.7.6.2	Verify each EFW Storage Pool supply cross connect valve is closed.	31 days

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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
	<u>AND</u> 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.	6 hours
	<u>AND</u> C.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>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. -----</p> <p>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.</p>	31 days
SR 3.7.7.2 Verify train leakage for each CCW train is less than 4 gallons per hour.	31 days
SR 3.7.7.3 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 3.7.7.4 Verify each CCW pump starts automatically on an actual or simulated actuation signal.	24 months

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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.
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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.	6 hours
	<u>AND</u> C.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.8.1 -----NOTE----- Isolation of ESW flow to individual components does not render the ESW System inoperable. -----</p> <p>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.</p>	31 days
<p>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.</p>	24 months
<p>SR 3.7.8.3 Verify each ESW pump starts automatically on an actual or simulated actuation signal.</p>	24 months

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3.7.9 Safety Chilled Water (SCW) System

LCO 3.7.9 Four SCW trains shall be OPERABLE.

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.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.9.1 -----NOTE----- Isolation of SCW flow to individual components does not render the SCW System inoperable. -----</p> <p>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.</p>	31 days
<p>SR 3.7.9.2 Verify each SCW train has the capability to remove the design heat load.</p>	24 months
<p>SR 3.7.9.3 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.</p>	24 months
<p>SR 3.7.9.4 Verify train leakage for each SCW train is less than 0.5 gallons per hour.</p>	24 months

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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.	A.1 Restore CREF train to OPERABLE status.	7 days
B. The CRE boundary is inoperable in MODE 1, 2, 3, or 4.	B.1 Initiate action to implement mitigating actions.	Immediately
	<p><u>AND</u></p> <p>B.2 -----REVIEWER'S NOTE----- The need for the mitigating action for toxic gas isolation state will be determined by the COL applicant.</p> <p>-----</p> <p>Verify mitigating actions ensure CRE occupant exposures to radiological, [ toxic gas, ] and smoke hazards will not exceed limits.</p> <p><u>AND</u></p>	



ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>E. Two CREF trains inoperable in MODE 5 or 6, or during movement of irradiated fuel assemblies.</p> <p><u>OR</u></p> <p>The CRE boundary is inoperable in MODE 5 or 6, or during movement of irradiated fuel assemblies.</p>	<p>E.1 Suspend movement of irradiated fuel assemblies.</p>	<p>Immediately</p>
<p>F. Two CREF trains inoperable in MODE 1, 2, 3, or 4.</p>	<p>F.1 Enter LCO 3.0.3.</p>	<p>Immediately</p>



SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.10.1	Operate each CREF train for $\geq 15$ minutes with the heaters energized.	31 days
SR 3.7.10.2	Perform required CREF filter 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

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3.7.11 Main 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 train 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 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Be in MODE 5.	36 hours
D. Required Action and associated Completion Time of Condition A or B not met in MODE 5 or 6, or during movement of irradiated fuel assemblies.	D.1 Place two OPERABLE CRACS trains in operation.	Immediately
	<u>OR</u> D.2 Suspend movement of irradiated fuel assemblies.	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 50% of the design heat load.	24 months

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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 filtration 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. One or more normal Fuel Building isolation dampers inoperable.	C.1 Restore Fuel Building isolation damper to OPERABLE status.	24 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A, B, or C not met.  <u>OR</u>  Two SBVS accident exhaust filtration trains inoperable for reasons other than Condition B.	D.1 Be in MODE 3.	6 hours
	<u>AND</u>  D.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.12.1	Verify Safeguard Building controlled areas and Fuel Building pressure is $\leq -0.25$ 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 $\geq 15$ minutes with the heaters energized.	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

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.12.6	Verify each Fuel Building isolation damper actuates on an actual or simulated actuation signal.	24 months
SR 3.7.12.7	Verify Safeguard Building controlled areas and Fuel Building pressure can be drawn down to $\leq -0.25$ inches water gauge in $\leq 305$ seconds after an actual or simulated actuation signal using one SBVS accident exhaust filtration train.	24 months on a STAGGERED TEST BASIS for each SBVS accident exhaust filtration train
SR 3.7.12.8	Verify Safeguard Building controlled areas and Fuel Building pressure can be maintained at $\leq -0.25$ inches water gauge using one SBVS accident exhaust filtration train at a flow rate of $\leq 2640$ cfm.	24 months on a STAGGERED TEST BASIS for each SBVS accident exhaust filtration train
SR 3.7.12.9	Verify each SBVS recirculation cooler and each Fuel Building Ventilation System recirculation cooler has the capability to remove the design heat load.	24 months
SR 3.7.12.10	Verify Safeguard Building controlled areas and Fuel Building structural integrity by performing a visual inspection of the exposed interior and exterior surfaces of the controlled areas of the Safeguard Buildings and Fuel Building.	During shutdown for SR 3.6.1.1 Type A tests

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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
	<u>AND</u> 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

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3.7.14 Spent Fuel Pool Water Level

LCO 3.7.14 The spent fuel pool water level shall be  $\geq 23$  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 $\geq 23$ ft above the top of the irradiated fuel assemblies seated in the storage racks.	7 days



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3.7.15 Spent Fuel Pool Boron Concentration and Enrichment

LCO 3.7.15 The spent fuel pool boron concentration shall be  $\geq$  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.	<p>-----NOTE----- LCO 3.0.3 is not applicable. -----</p>	
	A.1 Suspend movement of fuel assemblies in the spent fuel pool.	Immediately
	<u>AND</u>	
	A.2.1 Initiate action to restore spent fuel pool boron concentration and enrichment to within limits.	Immediately
	<u>OR</u>	
	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 $\geq 37\%$ .	24 months

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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  $\leq 5.0$  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.

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

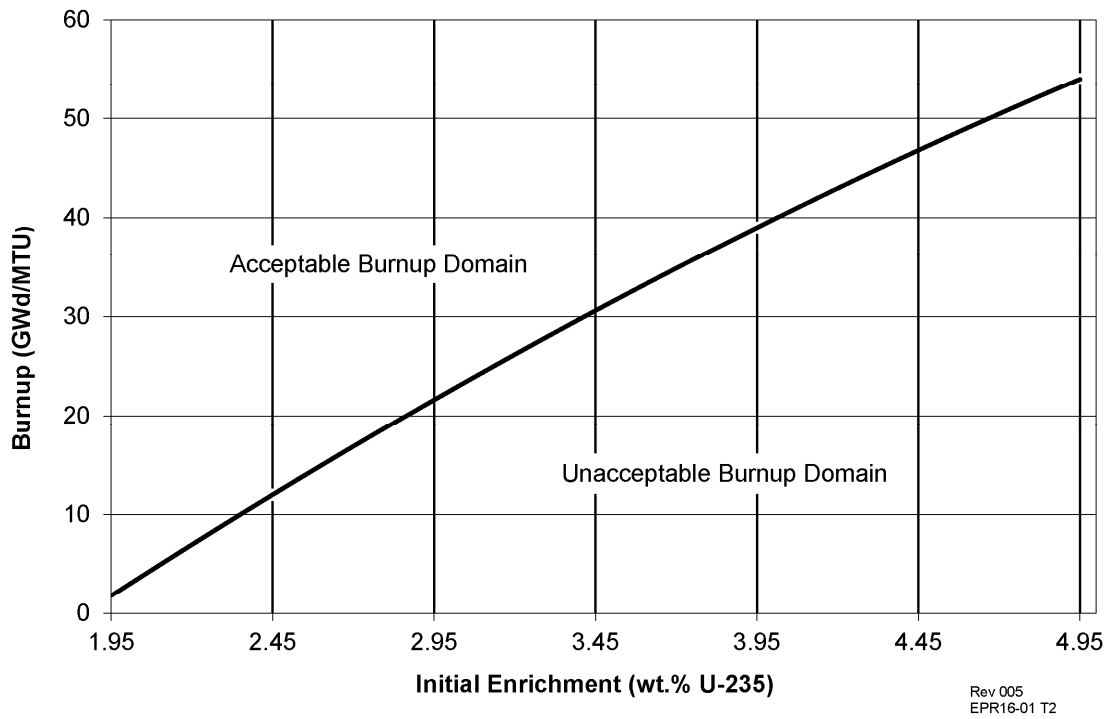


Figure 3.7.16-1  
Fuel Assembly Burnup Versus Initial Enrichment for Region 2 Storage

3.7 PLANT SYSTEMS

3.7.17 Secondary Specific Activity

LCO 3.7.17 The specific activity of the secondary coolant shall be  $\leq 0.10 \mu\text{Ci/gm}$   
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
	<u>AND</u>	
	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 $\leq 0.10 \mu\text{Ci/gm}$ 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, and 3,  
MODE 4 when steam generator is relied upon for heat removal.

ACTIONS

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

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.18.1 Verify main steam line leakage $\leq$ 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
	<u>AND</u> C.2 Be in MODE 5.	36 hours



SURVEILLANCE REQUIREMENTS

-----REVIEWER'S NOTE-----

A surveillance to verify the ability to supply emergency makeup water to each UHS cooling tower basin at  $\geq 300$  gpm will be provided by the COL applicant.

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SURVEILLANCE		FREQUENCY
SR 3.7.19.1	Verify water level of each UHS cooling tower basin is $\geq 25.75$ feet.	24 hours
SR 3.7.19.2	Verify water temperature of each UHS cooling tower basin is $\leq 90^{\circ}\text{F}$ .	24 hours
SR 3.7.19.3	Operate each UHS cooling tower fan for $\geq 15$ 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 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
[ SR 3.7.19.6	Verify the ability to supply emergency makeup water to each UHS cooling tower basin at $\geq 300$ gpm. ]	[ In accordance with the Inservice Testing Program ]

3.7 PLANT SYSTEMS

3.7.20 Main Steam Line Leakage Detection Instrumentation

LCO 3.7.20 The following main steam leakage detection instrumentation shall be OPERABLE:

- a. The main steam local humidity detection system; and
- b. One containment sump level monitor.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Main steam local humidity detection system inoperable.	A.1 Restore main steam local humidity detection system to OPERABLE status.	30 days
B. Containment sump level monitor inoperable.	B.1 Restore containment sump level monitor to OPERABLE status.	30 days
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 3. <u>AND</u> C.2 Be in MODE 5.	6 hours  36 hours

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE		FREQUENCY
SR 3.7.20.1	Perform a CHANNEL CHECK of the main steam local humidity detection system.	12 hours
SR 3.7.20.2	Perform a CALIBRATION of the main steam local humidity detection system.	24 months
SR 3.7.20.3	Perform a CALIBRATION of the containment sump level monitor.	24 months

3.7 PLANT SYSTEMS

3.7.21 Containment Low Flow Purge Subsystem (CLFPS)

LCO 3.7.21 Two CLFPS filtration trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4 during low flow purge.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CLFPS filtration train inoperable.	A.1 Initiate action to close CLFPS filtration train inlet damper.	Immediately
B. Two CLFPS filtration trains inoperable.	B.1 Initiate action to suspend low flow purging operations.	Immediately
	<u>AND</u> B.2 Initiate action to close CLFPS supply and exhaust containment isolation valve.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.21.1	Operate each CLFPS filtration train for $\geq 15$ minutes with heaters energized.	31 days
SR 3.7.21.2	Perform required CLFPS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.21.3	Verify each CLFPS filtration train inlet damper can be closed.	24 months

3.7 PLANT SYSTEMS

3.7.22 Steam Generator (SG) Blowdown Transfer Valves

LCO 3.7.22 Four SG blowdown transfer valves shall be OPERABLE.

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

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each SG blowdown transfer valve.  
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CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One SG blowdown transfer valve inoperable	A.1 Restore SG blowdown transfer valve to OPERABLE status.	72 hours
B. Power available to one or more SG blowdown transfer valve operators.	B.1 Remove power from SG blowdown transfer valve operators.	30 minutes
C. One or more SG blowdown transfer valves open.	C.1 Close valve(s).	30 minutes
D. Required Action and associated Completion Time of Condition A or B not met.	D.1 Be in MODE 3.	6 hours
	<u>AND</u> D.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.22.1	Verify each SG blowdown transfer valve is closed and power is removed from each transfer valve operator.	12 hours
SR 3.7.22.2	Verify each blowdown transfer valve is OPERABLE in accordance with the Inservice Testing Program.	In accordance with the Inservice Testing Program.

3.7 PLANT SYSTEMS

3.7.23 Spent Fuel Cask Transfer Facility (SFCTF) Barriers

LCO 3.7.23 Two SFCTF barriers shall be closed.

APPLICABILITY: With fuel stored in the spent fuel pool and no cask attached to the SFCTF.

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 close two of the four SFCTF barriers.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.23.1 Verify at least two SFCTF barriers are closed.	31 days