

3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

LCO 3.0.1 LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2 and LCO 3.0.7.

LCO 3.0.2 Upon discovery of a failure to meet an LCO, the Required Actions of the associated Conditions shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6.

If the LCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required, unless otherwise stated.

LCO 3.0.3 When an LCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, the plant shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the plant, as applicable, in:

- a. MODE 3 within 7 hours;
- b. MODE 4 within 31 hours; and
- c. MODE 5 within 37 hours.

Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.

LCO 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual Specifications; or

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LCO 3.0.4 (continued)

- c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the plant.

LCO 3.0.5 Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

LCO 3.0.6 When a supported system LCO is not met solely due to a support system LCO not being met, the Conditions and Required Actions associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 5.5.13, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered. When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

LCO 3.0.7 Special Test Exception (STE) LCOs in each applicable LCO section allow specified Technical Specifications (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with STE LCOs is optional. When an STE LCO is desired to be met but is not met, the ACTIONS of the STE LCO shall be met. When an STE LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with the other applicable Specifications.

3.0 SR APPLICABILITY

SR 3.0.4

Entry into a *MODE* or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 3.0.3. When an LCO is not met due to Surveillances not having been met, entry into a *MODE* or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

This provision shall not prevent entry into *MODES* or other specified conditions in the Applicability that are required to comply with *ACTIONS* or that are part of a shutdown of the plant.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>C. One Loss of Load trip unit or associated instrument channel inoperable.</p>	<p>C.1 Restore trip unit and associated instrument channel to OPERABLE status.</p>	<p>Prior to increasing THERMAL POWER to $\geq 17\%$ RTP following entry into MODE 3</p>
<p>D. One or more ZPM Bypass Removal channels inoperable.</p>	<p>D.1 Remove the affected ZPM Bypasses.</p> <p><u>OR</u></p> <p>D.2 Declare affected trip units inoperable.</p>	<p>Immediately</p> <p>Immediately</p>
<p>E. -----NOTE----- Not applicable to ZPM Bypass Removal Function. ----- One or more Functions with two RPS trip units or associated instrument channels inoperable.</p>	<p>E.1 Place one trip unit in trip.</p> <p><u>AND</u></p> <p>-----NOTE----- Not applicable to High Startup Rate or Loss of Load Functions. -----</p> <p>E.2 Restore one trip unit and associated instrument channel to OPERABLE status.</p>	<p>1 hour</p> <p>7 days</p>
<p>F. Two power range channels inoperable.</p>	<p>F.1 Restrict THERMAL POWER to $\leq 70\%$ RTP.</p>	<p>2 hours</p>

3.3 INSTRUMENTATION

3.3.3 Engineered Safety Features (ESF) Instrumentation

LCO 3.3.3 Four ESF bistables and associated instrument channels for each Function in Table 3.3.3-1 shall be OPERABLE.

APPLICABILITY: As specified in Table 3.3.3-1.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. -----NOTE----- Not applicable to RAS. -----</p> <p>One or more Functions with one ESF bistable or associated instrument channel inoperable.</p>	<p>A.1 Place affected bistable in trip.</p>	7 days
<p>B. -----NOTE----- Not applicable to RAS. -----</p> <p>One or more Functions with two ESF bistables or associated instrument channels inoperable.</p>	<p>B.1 Place one bistable in trip.</p> <p><u>AND</u></p> <p>B.2 Restore one bistable and associated instrument channel to OPERABLE status.</p>	<p>8 hours</p> <p>7 days</p>

3.3 INSTRUMENTATION

3.3.7 Post Accident Monitoring (PAM) Instrumentation

LCO 3.3.7 The PAM instrumentation for each Function in Table 3.3.7-1 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one required channel inoperable.	A.1 Restore required channel to OPERABLE status.	30 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action in accordance with Specification 5.6.6.	Immediately
C. -----NOTE----- Not applicable to hydrogen monitor channels. ----- One or more Functions with two required channels inoperable.	C.1 Restore one channel to OPERABLE status.	7 days

3.3 INSTRUMENTATION

3.3.8 Alternate Shutdown System

LCO 3.3.8 The Alternate Shutdown System Functions in Table 3.3.8-1 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Functions inoperable.	A.1 Restore required Functions to OPERABLE status.	30 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.	30 hours

3.4 PRIMARY COOLANT SYSTEM (PCS)

3.4.11 Pressurizer Power Operated Relief Valves (PORVs)

LCO 3.4.11 Each PORV and associated block valve shall be OPERABLE.

APPLICABILITY: MODES 1 and 2,
MODE 3 with all PCS cold leg temperatures $\geq 430^{\circ}\text{F}$.

ACTIONS

-----NOTE-----
Separate Condition entry is allowed for each PORV.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One PORV inoperable.	A.1 Close associated block valve.	1 hour
	<u>AND</u>	
	A.2 Restore PORV to OPERABLE status.	72 hours
B. One block valve inoperable.	B.1 Place associated PORV in manual control.	1 hour
	<u>AND</u>	
	B.2 Restore block valve to OPERABLE status.	72 hours

3.4 PRIMARY COOLANT SYSTEM (PCS)

3.4.12 Low Temperature Overpressure Protection (LTOP) System

LCO 3.4.12 An LTOP System shall be OPERABLE with:

- a. Both High Pressure Safety Injection (HPSI) pumps incapable of injecting into the PCS, and

- NOTES-----
- 1. LCO 3.4.12.a is only required when any PCS cold leg temperature is < 300°F.
 - 2. LCO 3.4.12.a does not prohibit the use of the HPSI pumps for emergency addition of makeup to the PCS.
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- b. One of the following pressure relief capabilities:
 - 1. Two Power Operated Relief Valves (PORVs) with lift settings as specified in Figure 3.4.12-1; or
 - 2. The PCS depressurized and a PCS vent capable of relieving ≥ 167 gpm at a pressure of 315 psia.

APPLICABILITY: MODE 3 when any PCS cold leg temperature is < 430°F,
MODES 4 and 5,
MODE 6 when the reactor vessel head is on.

ACTIONS

-----NOTE-----
LCO 3.0.4.b is not applicable to PORVs when entering MODE 4.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or two HPSI pumps capable of injecting into the PCS.	A.1 Initiate action to verify no HPSI pump is capable of injecting into the PCS.	Immediately

3.4 PRIMARY COOLANT SYSTEM (PCS)

3.4.15 PCS Leakage Detection Instrumentation

LCO 3.4.15 Three of the following PCS leakage detection instrumentation channels shall be OPERABLE:

- a. One containment sump level indicating channel;
- b. One containment atmosphere gaseous activity monitoring channel;
- c. One containment air cooler condensate level switch channel;
- d. One containment atmosphere humidity monitoring channel.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or two required leak detection instrument channels inoperable.	A.1 Perform SR 3.4.13.1 (PCS water inventory balance).	Once per 24 hours
	<u>AND</u> A.2 Restore inoperable channel(s) to OPERABLE status.	30 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 5.	36 hours

3.4 PRIMARY COOLANT SYSTEM (PCS)

3.4.16 PCS Specific Activity

LCO 3.4.16 The specific activity of the primary coolant shall be within limits.

APPLICABILITY: MODES 1 and 2,
MODE 3 with PCS average temperature (T_{ave}) $\geq 500^{\circ}\text{F}$.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME	
<p>A. DOSE EQUIVALENT I-131 > 1.0 $\mu\text{Ci/gm}$.</p>	<p>-----NOTE----- LCO 3.0.4.c is applicable. -----</p>		
	<p>A.1 Verify DOSE EQUIVALENT I-131 < 40 $\mu\text{Ci/gm}$.</p>		<p>Once per 4 hours</p>
	<p><u>AND</u> A.2 Restore DOSE EQUIVALENT I-131 to within limit.</p>		<p>48 hours</p>

3.6 CONTAINMENT SYSTEMS

3.6.7 Hydrogen Recombiners

LCO 3.6.7 Two hydrogen recombiners shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One hydrogen recombiner inoperable.	A.1 Restore hydrogen recombiner to OPERABLE status.	30 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours

3.7 PLANT SYSTEMS

3.7.4 Atmospheric Dump Valves (ADVs)

LCO 3.7.4 One ADV per steam generator shall be OPERABLE.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One required ADV inoperable.	A.1 Restore ADV to OPERABLE status.	7 days
B. Two required ADVs inoperable.	B.1 Restore one ADV to OPERABLE status.	24 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 4 without reliance upon steam generator for heat removal.	30 hours

3.7 PLANT SYSTEMS

3.7.5 Auxiliary Feedwater (AFW) System

LCO 3.7.5 Two AFW trains shall be OPERABLE.

-----NOTES-----

1. Only one AFW train, which includes a motor driven pump, is required to be OPERABLE in MODE 4.
 2. The steam driven pump is only required to be OPERABLE prior to making the reactor critical.
 3. Two AFW pumps may be placed in manual for testing, for a period of up to 4 hours.
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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.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more AFW trains inoperable in MODE 1, 2, or 3.	A.1 Restore train(s) to OPERABLE status.	72 hours

3.8 ELECTRICAL POWER SYSTEMS

3.8.1 AC Sources - Operating

LCO 3.8.1 The following AC electrical sources shall be OPERABLE:

- a. Two qualified circuits between the offsite transmission network and the onsite Class 1E AC Electrical Power Distribution System; and
- b. Two Diesel Generators (DGs) each capable of supplying one train of the onsite Class 1E AC Electrical Power Distribution System.

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

ACTIONS

-----NOTE-----

LCO 3.0.4.b is not applicable to DGs.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One offsite circuit inoperable.	A.1 Perform SR 3.8.1.1 (offsite source check) for OPERABLE offsite circuit.	1 hour <u>AND</u> Once per 8 hours thereafter
	<u>AND</u> A.2 Restore offsite circuit to OPERABLE status.	72 hours <u>AND</u> 10 days from discovery of failure to meet LCO