

1.4 Frequency

EXAMPLES
(continued)EXAMPLE 1.4-1SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Perform CHANNEL CHECK.	12 hours

Example 1.4-1 contains the type of SR most often encountered in the Technical Specifications (TS). The Frequency specifies an interval (12 hours) during which the associated Surveillance must be performed at least one time. Performance of the Surveillance initiates the subsequent interval. Although the Frequency is stated as 12 hours, an extension of the time interval to 1.25 times the stated Frequency is allowed by SR 3.0.2 for operational flexibility. The measurement of this interval continues at all times, even when the SR is not required to be met per SR 3.0.1 (such as when the equipment is inoperable, a variable is outside specified limits, or the unit is outside the Applicability of the LCO). If the interval specified by SR 3.0.2 is exceeded while the unit is in a MODE or other specified condition in the Applicability of the LCO, and the performance of the Surveillance is not otherwise modified (refer to Example 1.4-3), then SR 3.0.3 becomes applicable.

If the interval as specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO for which performance of the SR is required, then SR 3.0.4 becomes applicable. The Surveillance must be performed within the Frequency requirements of SR 3.0.2, as modified by SR 3.0.3, prior to entry into the MODE or other specified condition or the LCO is considered not met (in accordance with SR 3.0.1) and LCO 3.0.4 becomes applicable.

(continued)

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 3.0.7.
LCO 3.0.2	<p>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.</p> <p>If the LCO is met or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required unless otherwise stated.</p>
LCO 3.0.3	<p>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 unit 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 unit, as applicable, in:</p> <ol style="list-style-type: none">MODE 3 within 7 hours;MODE 4 within 13 hours; andMODE 5 within 37 hours. <p>Exceptions to this Specification are stated in the individual Specifications.</p> <p>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.</p> <p>LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.</p>
LCO 3.0.4	<p>When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:</p> <ol style="list-style-type: none">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;

(continued)

3.0 LCO APPLICABILITY

LCO 3.0.4 (continued)	<p>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</p> <p>c. When an allowance is stated in the individual value, parameter, or other Specification.</p> <p>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 unit.</p>
LCO 3.0.5	<p>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.</p>
LCO 3.0.6	<p>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 5.5.15, "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.</p> <p>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.</p>
LCO 3.0.7	<p>Test Exception LCO 3.1.8 allows specified Technical Specification (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with Test Exception LCOs is optional. When a Test Exception LCO is desired to be met but is not met, the ACTIONS of the Test Exception LCO shall be met. When a Test Exception LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall be made in accordance with the other applicable Specifications.</p>

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1	<p>SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.</p>
SR 3.0.2	<p>The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.</p> <p>For Frequencies specified as "once," the above interval extension does not apply.</p> <p>If a Completion Time requires periodic performance on a "once per . . ." basis, the above Frequency extension applies to each performance after the initial performance.</p> <p>Exceptions to this Specification are stated in the individual Specifications.</p>
SR 3.0.3	<p>If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.</p> <p>If the Surveillance is not performed within the delay period, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.</p> <p>When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered.</p>
SR 3.0.4	<p>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.</p>

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3.0 SR APPLICABILITY

SR 3.0.4 (continued)	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 unit.
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3.3 INSTRUMENTATION

3.3.3 Post Accident Monitoring (PAM) Instrumentation

LCO 3.3.3 The PAM instrumentation for each Function in Table 3.3.3-1 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 5.6.8.	Immediately
C. One or more Functions with two required channels inoperable.	C.1 Restore one channel to OPERABLE status.	7 days

3.3 INSTRUMENTATION

3.3.4 Remote Shutdown System

LCO 3.3.4 The Remote Shutdown System Functions in Table 3.3.4-1 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 Function to OPERABLE status.	30 days
B. -----NOTE----- Not applicable to Source Range Neutron Flux function. -----	B.1 Be in MODE 3. <u>AND</u> B.2 Be in MODE 4.	6 hours 12 hours
Required Action and associated Completion Time not met.		

3.4 REACTOR COOLANT SYSTEM (RCS)

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, 2, and 3.

ACTIONS

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

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more PORVs inoperable and capable of being manually cycled.	A.1 Close and maintain power to associated block valve.	1 hour
B. One PORV inoperable and not capable of being manually cycled.	B.1 Close associated block valve.	1 hour
	<u>AND</u>	
	B.2 Remove power from associated block valve.	1 hour
	<u>AND</u>	
	B.3 Restore PORV to OPERABLE status.	72 hours

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.12 Low Temperature Overpressure Protection (LTOP) System

LCO 3.4.12 An LTOP System shall be OPERABLE with a maximum of one charging pump capable of injecting into the RCS and the accumulators isolated and either a or b below.

- a. Two residual heat removal (RHR) suction relief valves with setpoints ≤ 450 psig.
- b. The RCS depressurized and an RCS vent of ≥ 2.85 square inches.

APPLICABILITY: MODE 4 when the temperature of one or more RCS cold legs is $\leq 325^{\circ}\text{F}$,
MODE 5,
MODE 6 when the reactor vessel head is on.

NOTES

1. The requirement to have only one charging pump capable of injecting into the RCS is only applicable when one or more of the RCS cold legs is $\leq 180^{\circ}\text{F}$; however, while in this condition, two charging pumps may be capable of injecting into the RCS during pump swap operations for a period of no more than 15 minutes provided that the RCS is in a non-water solid condition and both RHR relief valves are OPERABLE or the RCS is vented via an opening of no less than 5.7 square inches in area.
2. Accumulator isolation is only required when accumulator pressure is greater than or equal to the maximum RCS pressure for the existing RCS cold leg temperature allowed by the P/T limit curves provided in the PTLR.

ACTIONS

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

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Two or more charging pumps capable of injecting into the RCS.	<p>A.1 ----- NOTE----- Two charging pumps may be capable of injecting into the RCS during pump swap operation for ≤ 15 minutes. -----</p> <p>Initiate action to verify a maximum of one charging pump is capable of injecting into the RCS.</p>	Immediately
B. An accumulator not isolated when the accumulator pressure is greater than or equal to the maximum RCS pressure for existing cold leg temperature allowed in the PTLR.	B.1 Isolate affected accumulator.	1 hour
C. Required Action and associated Completion Time of Condition B not met.	<p>C.1 Increase RCS cold leg temperature to $> 325^{\circ}\text{F}$.</p> <p><u>OR</u></p> <p>C.2 Depressurize affected accumulator to less than the maximum RCS pressure for existing cold leg temperature allowed in the PTLR.</p>	<p>12 hours</p> <p>12 hours</p>

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.15 RCS Leakage Detection Instrumentation

LCO 3.4.15 The following RCS leakage detection instrumentation shall be OPERABLE:

- a. One containment atmosphere particulate radioactivity monitor; and
- b. One containment air cooler condensate level monitor or one containment atmosphere gaseous radioactivity monitor.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Containment atmosphere particulate radioactivity monitor inoperable.	A.1.1 Analyze grab samples of the containment atmosphere.	Once per 24 hours
	<u>OR</u>	
	A.1.2 Perform SR 3.4.13.1.	Once per 24 hours
	<u>AND</u>	
	A.2 Restore the containment atmosphere particulate radioactivity monitor to OPERABLE status.	30 days

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.16 RCS Specific Activity

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

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. DOSE EQUIVALENT I-131 $> 0.5 \mu\text{Ci/gm}$.	-----Note----- LCO 3.0.4c is applicable. -----	
	A.1 Verify DOSE EQUIVALENT I-131 within the acceptable region of Figure 3.4.16-1.	Once per 4 hours
	<u>AND</u> A.2 Restore DOSE EQUIVALENT I-131 to within limit.	48 hours
B. Gross specific activity of the reactor coolant not within limit.	B.1 Be in MODE 3 with $T_{avg} < 500^{\circ}\text{F}$.	6 hours

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.3 ECCS — Shutdown

LCO 3.5.3 One ECCS train shall be OPERABLE.

NOTES

1. An RHR train may be considered OPERABLE during alignment and operation for decay heat removal, if capable of being manually realigned to the ECCS mode of operation.
2. Upon entry into MODE 4 from MODE 3, the breaker or disconnect device to the valve operators for MOVs 8706A and 8706B may be closed for up to 4 hours to allow for repositioning from MODE 3 requirements.

APPLICABILITY: MODE 4.

ACTIONS

NOTE

LCO 3.0.4b is not applicable to ECCS centrifugal charging subsystem.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Required ECCS residual heat removal (RHR) subsystem inoperable.	A.1 Initiate action to restore required ECCS RHR subsystem to OPERABLE status.	Immediately
B. Required ECCS centrifugal charging subsystem inoperable. <u>AND</u> At least 100% of the ECCS flow equivalent to a single OPERABLE ECCS train available.	B.1 Restore required ECCS centrifugal charging subsystem to OPERABLE status.	72 hours

3.6 CONTAINMENT SYSTEMS

3.6.8 Hydrogen Mixing System (HMS)

LCO 3.6.8 Two HMS trains shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One HMS train inoperable.	A.1	Restore HMS train to OPERABLE status.	30 days
B. Two HMS trains inoperable.	B.1	Verify by administrative means that the hydrogen control function is maintained.	1 hour <u>AND</u> Once per 12 hours thereafter
	<u>AND</u> B.2	Restore one HMS train to OPERABLE status.	7 days
C. Required Action and associated Completion Time not met.	C.1	Be in MODE 3.	6 hours

3.6 CONTAINMENT SYSTEMS

3.6.9 Reactor Cavity Hydrogen Dilution System

LCO 3.6.9 Two Reactor Cavity Hydrogen Dilution trains shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One Reactor Cavity Hydrogen Dilution train inoperable.	A.1 Restore the train to OPERABLE status.	30 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.9.1 Operate each Reactor Cavity Hydrogen Dilution train for ≥ 15 minutes.	92 days
SR 3.6.9.2 Verify each Reactor Cavity Hydrogen Dilution train starts on an actual or simulated actuation signal.	18 months

3.7 PLANT SYSTEMS

3.7.4 Atmospheric Relief Valves (ARVs)

LCO 3.7.4 Three ARV lines shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One required ARV line inoperable.	A.1	Restore required ARV line to OPERABLE status.	7 days
B. Two or more required ARV lines inoperable.	B.1	Restore all but one ARV line 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.	18 hours

3.7 PLANT SYSTEMS

3.7.5 Auxiliary Feedwater (AFW) System

LCO 3.7.5 Three AFW trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

NOTE

LCO 3.0.4b is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One steam supply to turbine driven AFW pump inoperable.	A.1 Restore steam supply to OPERABLE status.	7 days <u>AND</u> 10 days from discovery of failure to meet the LCO
B. One AFW train inoperable for reasons other than Condition A.	B.1 Restore AFW train to OPERABLE status.	72 hours <u>AND</u> 10 days from discovery of failure to meet the LCO
C. Required Action and associated Completion Time for Condition A or B not met. <u>OR</u> Two AFW trains inoperable.	C.1 Be in MODE 3. <u>AND</u> C.2 Be in MODE 4.	6 hours 12 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 generator (DG) sets capable of supplying the onsite Class 1E power distribution subsystem(s); and
- c. Automatic load sequencers for Train A and Train B.

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

ACTIONS

-----NOTE-----

LCO 3.0.4b is not applicable to DGs.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One required offsite circuit inoperable.	A.1 Perform SR 3.8.1.1 for required OPERABLE offsite circuit.	2 hours
	<u>AND</u>	<u>AND</u>
	A.2 Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.	Once per 8 hours thereafter
	<u>AND</u>	24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s)
		(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.3 Restore required offsite circuit to OPERABLE status.	72 hours <u>AND</u> 13 days from discovery of failure to meet LCO
B. One DG set inoperable.	-----NOTE----- LCO 3.0.4c is applicable when only one of the three DGs is inoperable. -----	
	B.1 Perform SR 3.8.1.1 for the required offsite circuit(s).	2 hours <u>AND</u> Once per 8 hours thereafter
	<u>AND</u> B.2 Declare required feature(s) supported by the inoperable DG set inoperable when its required redundant feature(s) is inoperable.	4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)
	<u>AND</u> B.3.1 Determine OPERABLE DG set is not inoperable due to common cause failure. <u>OR</u>	24 hours (continued)