

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1 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.

SR 3.0.2 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.

For Frequencies specified as "once," the above interval extension does not apply.

If a Completion Time requires periodic performance on a "once per . . ." basis, the above Frequency extension applies to each performance after the initial performance.

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3 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.

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.

(continued)

| SURVEILLANCE REQUIREMENTS (continued) | | |
|---------------------------------------|---|--|
| SURVEILLANCE | | FREQUENCY |
| SR 3.1.7.7 | Verify each pump develops a flow rate ≥ 41.2 gpm at a discharge pressure ≥ 1220 psig. | In accordance with the Inservice Testing Program |
| SR 3.1.7.8 | Verify flow through one SLC subsystem from pump into reactor pressure vessel. | 24 months on a STAGGERED TEST BASIS |
| SR 3.1.7.9 | Verify all piping between storage tank and pump suction is unblocked. | 24 months <u>AND</u> Once within 24 hours after pump suction piping temperature is restored to $\geq 70^{\circ}\text{F}$ |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|-----------|
| <p>SR 3.1.8.1 -----NOTE----- Not required to be met on vent and drain valves closed during performance of SR 3.1.8.2. -----</p> <p>Verify each SDV vent and drain valve is open.</p> | 31 days |
| <p>SR 3.1.8.2 Cycle each SDV vent and drain valve to the fully closed and fully open position.</p> | 92 days |
| <p>SR 3.1.8.3 Verify each SDV vent and drain valve:</p> <ul style="list-style-type: none"> a. Closes in ≤ 30 seconds after receipt of an actual or simulated scram signal; and b. Opens when the actual or simulated scram signal is reset. | 24 months |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | | FREQUENCY |
|---------------|---|-----------|
| SR 3.3.1.1.11 | <p>-----NOTES-----</p> <p>1. Neutron detectors are excluded.</p> <p>2. For function 2.a, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2.</p> <p>-----</p> <p>Perform CHANNEL CALIBRATION.</p> | 184 days |
| SR 3.3.1.1.12 | Perform CHANNEL FUNCTIONAL TEST. | 24 months |
| SR 3.3.1.1.13 | <p>-----NOTES-----</p> <p>1. Neutron detectors are excluded.</p> <p>2. For IRMs, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2.</p> <p>-----</p> <p>Perform CHANNEL CALIBRATION.</p> | 24 months |
| SR 3.3.1.1.14 | Verify the APRM Flow Biased Simulated Thermal Power-High time constant is within the limits specified in the COLR. | 24 months |
| SR 3.3.1.1.15 | Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|--|---|
| SR 3.3.1.1.16 Verify Turbine Stop Valve Closure and Turbine Control Valve Fast Closure Trip Oil Pressure-Low Functions are not bypassed when THERMAL POWER is \geq 33.3% RTP. | 24 months |
| SR 3.3.1.1.17 -----NOTES----- 1. Neutron detectors are excluded. 2. For Functions 3, 4, and 5 in Table 3.3.1.1-1, the channel sensors are excluded. 3. The STAGGERED TEST BASIS Frequency for each Function shall be determined on a per channel basis. ----- Verify the RPS RESPONSE TIME is within limits. | 24 months on a STAGGERED TEST BASIS |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|--|---|
| <p>SR 3.3.1.2.4 -----NOTE----- Not required to be met with less than or equal to four fuel assemblies adjacent to the SRM and no other fuel assemblies in the associated core quadrant. -----</p> <p>Verify count rate is ≥ 3.0 cps.</p> | <p>12 hours during CORE ALTERATIONS</p> <p><u>AND</u></p> <p>24 hours</p> |
| <p>SR 3.3.1.2.5 -----NOTE----- Not required to be performed until 12 hours after IRMs on Range 2 or below. -----</p> <p>Perform CHANNEL FUNCTIONAL TEST.</p> | <p>31 days</p> |
| <p>SR 3.3.1.2.6 -----NOTES----- 1. Neutron detectors are excluded. 2. Not required to be performed until 12 hours after IRMs on Range 2 or below. -----</p> <p>Perform CHANNEL CALIBRATION.</p> | <p>24 months</p> |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|--|--|
| <p>SR 3.3.2.1.4 -----NOTE----- Not required to be performed until 1 hour after THERMAL POWER is \leq 16.7% RTP in MODE 1. -----</p> <p>Perform CHANNEL FUNCTIONAL TEST.</p> | 92 days |
| <p>SR 3.3.2.1.5 Calibrate the low power setpoint analog trip modules. The Allowable Value shall be $>$ 16.7% RTP and \leq 29.2% RTP.</p> | 92 days |
| <p>SR 3.3.2.1.6 Verify the RWL high power Function is not bypassed when THERMAL POWER is $>$ 70% RTP.</p> | 92 days |
| <p>SR 3.3.2.1.7 Perform CHANNEL CALIBRATION.</p> | 24 months |
| <p>SR 3.3.2.1.8 -----NOTE----- Not required to be performed until 1 hour after reactor mode switch is in the shutdown position. -----</p> <p>Perform CHANNEL FUNCTIONAL TEST.</p> | 24 months |
| <p>SR 3.3.2.1.9 Verify the bypassing and movement of control rods required to be bypassed in Rod Action Control System (RACS) is in conformance with applicable analyses by a second licensed operator or other qualified member of the technical staff.</p> | Prior to and during the movement of control rods bypassed in RACS |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|--|-----------|
| SR 3.3.3.1.1 | <p>-----NOTE----- Applicable for each Function in Table 3.3.3.1-1. -----</p> <p>Perform CHANNEL CHECK.</p> | 31 days |
| SR 3.3.3.1.2 | Deleted | |
| SR 3.3.3.1.3 | <p>-----NOTE----- Applicable for each Function in Table 3.3.3.1-1. -----</p> <p>Perform CHANNEL CALIBRATION.</p> | 24 months |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | | FREQUENCY |
|--------------|---|-----------|
| SR 3.3.3.2.2 | Verify each required control circuit and transfer switch is capable of performing the intended functions. | 24 months |
| SR 3.3.3.2.3 | Perform CHANNEL CALIBRATION for each required instrumentation channel. | 24 months |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | | FREQUENCY |
|--------------|--|-------------------------------------|
| SR 3.3.4.1.2 | Perform CHANNEL CALIBRATION. The Allowable Values shall be: a. TSV Closure: $\leq 7\%$ closed; and b. TCV Fast Closure, Trip Oil Pressure-Low: ≥ 465 psig. | 24 months |
| SR 3.3.4.1.3 | Perform LOGIC SYSTEM FUNCTIONAL TEST, including breaker actuation. | 24 months |
| SR 3.3.4.1.4 | Verify TSV Closure and TCV Fast Closure, Trip Oil Pressure-Low Functions are not bypassed when THERMAL POWER is $\geq 33.3\%$ RTP. | 24 months |
| SR 3.3.4.1.5 | <p>-----NOTE----- The STAGGERED TEST BASIS Frequency shall be determined on a per Function basis. -----</p> <p>Verify the EOC-RPT SYSTEM RESPONSE TIME is within limits.</p> | 24 months on a STAGGERED TEST BASIS |

ACTIONS (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|-----------------|
| C. Required Action and associated Completion Time not met. | C.1 Remove the associated recirculation pump from service. | 6 hours |
| | <u>OR</u> C.2 Be in MODE 2. | 6 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|---|-----------|
| SR 3.3.4.2.1 | Perform CHANNEL CHECK. | 12 hours |
| SR 3.3.4.2.2 | Perform CHANNEL FUNCTIONAL TEST. | 92 days |
| SR 3.3.4.2.3 | Calibrate the trip units. | 92 days |
| SR 3.3.4.2.4 | Perform CHANNEL CALIBRATION. The Allowable Values shall be: a. Reactor Vessel Water Level-Low Low, Level 2: ≥ -50.0 inches; and b. Reactor Steam Dome Pressure-High: ≤ 1143 psig. | 24 months |
| SR 3.3.4.2.5 | Perform LOGIC SYSTEM FUNCTIONAL TEST, including breaker actuation. | 24 months |

SURVEILLANCE REQUIREMENTS

-----NOTES-----

1. Refer to Table 3.3.5.1-1 to determine which SRs apply for each ECCS Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed as follows: (a) for up to 6 hours for Functions 3.c, 3.f, 3.g, and 3.h; and (b) for up to 6 hours for Functions other than 3.c, 3.f, 3.g, and 3.h, provided the associated Function or the redundant Function maintains ECCS initiation capability.
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| SURVEILLANCE | | FREQUENCY |
|--------------|---------------------------------------|-----------|
| SR 3.3.5.1.1 | Perform CHANNEL CHECK. | 12 hours |
| SR 3.3.5.1.2 | Perform CHANNEL FUNCTIONAL TEST. | 92 days |
| SR 3.3.5.1.3 | Calibrate the analog trip module. | 92 days |
| SR 3.3.5.1.4 | Perform CHANNEL CALIBRATION. | 24 months |
| SR 3.3.5.1.5 | Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |
| SR 3.3.5.1.6 | Perform CHANNEL CALIBRATION. | 18 months |

Table 3.3.5.1-1 (page 1 of 5)
Emergency Core Cooling System Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION A.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|--|---|--|--|--|
| 1. Low Pressure Coolant Injection-A (LPCI) and Low Pressure Core Spray (LPCS) Subsystems | | | | | |
| a. Reactor Vessel Water Level-Low Low Low, Level 1 | 1,2,3, 4 ^(a) , 5 ^(a) | 2 ^(b) | B | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.5 SR 3.3.5.1.6 ^(a) | ≥ -148.1 inches |
| b. Drywell Pressure-High | 1,2,3 | 2 ^(b) | B | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≤ 1.88 psig |
| c. LPCI Pump A Start-Time Delay Logic Card | 1,2,3, 4 ^(a) , 5 ^(a) | 1 | C | SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≥ 4.5 seconds and ≤ 5.5 seconds |
| d. Reactor Vessel Pressure-Low (Injection Permissive) | 1,2,3 4 ^(a) , 5 ^(a) | 4 4 | C B | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.4 ^(a) SR 3.3.5.1.5 SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.4 ^(a) SR 3.3.5.1.5 | ≥ 454 psig and ≤ 494 psig ≥ 454 psig and ≤ 494 psig |
| e. LPCS Pump Discharge Flow-Low (Bypass) | 1,2,3, 4 ^(a) , 5 ^(a) | 1 | E | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≥ 750 gpm |
| f. LPCI Pump A Discharge Flow-Low (Bypass) | 1,2,3, 4 ^(a) , 5 ^(a) | 1 | E | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≥ 900 gpm |
| g. Manual Initiation | 1,2,3, 4 ^(a) , 5 ^(a) | 1 | C | SR 3.3.5.1.5 | NA |

(continued)

(a) When associated subsystem(s) are required to be OPERABLE.

(b) Also required to initiate the associated diesel generator.

- (e) 1. If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined As-Found Tolerance band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.
2. The instrument channel setpoint shall be reset to a value within the As-Left Tolerance of the Actual Trip Setpoint; otherwise, the channel shall be declared inoperable.
3. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined As-Found Tolerance and As-Left Tolerance bands shall be specified in the ORM.

Table 3.3.5.1-1 (page 2 of 5)
Emergency Core Cooling System Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION A.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|--|--------------------------------------|--|--|--|
| 2. LPCI B and LPCI C Subsystems | | | | | |
| a. Reactor Vessel Water Level-Low Low Low, Level 1 | 1,2,3, 4 ^(a) , 5 ^(a) | 2 ^(b) | B | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.5 SR 3.3.5.1.6 ^(a) | ≥ -148.1 inches |
| b. Drywell Pressure-High | 1,2,3 | 2 ^(b) | B | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≤ 1.88 psig |
| c. LPCI Pump B Start-Time Delay Logic Card | 1,2,3, 4 ^(a) , 5 ^(a) | 1 | C | SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≥ 4.5 seconds and ≤ 5.5 seconds |
| d. Reactor Vessel Pressure-Low (Injection Permissive) | 1,2,3 4 ^(a) , 5 ^(a) | 4 4 | C B | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.4 ^(a) SR 3.3.5.1.5 SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.4 ^(a) SR 3.3.5.1.5 | ≥ 454 psig and ≤ 494 psig ≥ 454 psig and ≤ 494 psig |
| e. LPCI Pump B and LPCI Pump C Discharge Flow-Low (Bypass) | 1,2,3, 4 ^(a) , 5 ^(a) | 1 per pump | E | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≥ 900 gpm |
| f. Manual Initiation | 1,2,3, 4 ^(a) , 5 ^(a) | 1 | C | SR 3.3.5.1.5 | NA |

(continued)

(a) When associated subsystem(s) are required to be OPERABLE.

(b) Also required to initiate the associated diesel generator.

- (e) 1. If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined As-Found Tolerance band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.
2. The instrument channel setpoint shall be reset to a value within the As-Left Tolerance of the Actual Trip Setpoint; otherwise, the channel shall be declared inoperable.
3. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined As-Found Tolerance and As-Left Tolerance bands shall be specified in the ORM.

Table 3.3.5.1-1 (page 3 of 5)
Emergency Core Cooling System Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION A.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|---|--|--------------------------------------|--|--|--------------------|
| 3. High Pressure Core Spray (HPCS) System | | | | | |
| a. Reactor Vessel Water Level-Low Low, Level 2 | 1,2,3, 4 ^(a) , 5 ^(a) | 4 ^(b) | B | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.5 SR 3.3.5.1.6 ^(a) | ≥ -48.1 inches |
| b. Drywell Pressure - High | 1,2,3 | 4 ^(b) | B | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≤ 1.88 psig |
| c. Reactor Vessel Water Level-High, Level 8 | 1,2,3, 4 ^(a) , 5 ^(a) | 2 | C | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.5 SR 3.3.5.1.6 ^(a) | ≤ 54.6 inches |
| d. RCIC Storage Tank Level- Low | 1,2,3, 4 ^(c) , 5 ^(c) | 2 | D | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.4 ^(a) SR 3.3.5.1.5 | ≥ 3.0 inches |
| e. Suppression Pool Water Level-High | 1,2,3 | 2 | D | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(a) SR 3.3.5.1.4 ^(a) SR 3.3.5.1.5 | ≤ 11 inches |
| f. HPCS Pump Discharge Pressure-High (Bypass) | 1,2,3, 4 ^(a) , 5 ^(a) | 1 | E | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≥ 120 psig |
| g. HPCS System Flow Rate- Low (Bypass) | 1,2,3, 4 ^(a) , 5 ^(a) | 1 | E | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≥ 500 gpm |
| h. Manual Initiation | 1,2,3, 4 ^(a) , 5 ^(a) | 1 | C | SR 3.3.5.1.5 | NA |

(continued)

- (a) When associated subsystem(s) are required to be OPERABLE.
 (b) Also required to initiate the associated diesel generator.
 (c) When HPCS is OPERABLE for compliance with LCO 3.5.2, "ECCS-Shutdown," and aligned to the RCIC storage tank while tank water level is not within the limits of SR 3.5.2.2.
 (e) 1. If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined As-Found Tolerance band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.
 2. The instrument channel setpoint shall be reset to a value within the As-Left Tolerance of the Actual Trip Setpoint; otherwise, the channel shall be declared inoperable.
 3. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined As-Found Tolerance and As-Left Tolerance bands shall be specified in the ORM.

Table 3.3.5.1-1 (page 4 of 5)
Emergency Core Cooling System Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION A.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|---|--|--------------------------------------|--|--|--------------------------------|
| 4. Automatic Depressurization System (ADS) Trip System 1 (Logic A and E) | | | | | |
| a. Reactor Vessel Water Level-Low Low Low, Level 1 | 1,2 ^(d) ,3 ^(d) | 2 | F | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(e) SR 3.3.5.1.5 SR 3.3.5.1.6 ^(e) | ≥ -148.1 inches |
| b. Drywell Pressure-High | 1,2 ^(d) ,3 ^(d) | 2 | F | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≤ 1.88 psig |
| c. ADS Initiation Timer | 1,2 ^(d) ,3 ^(d) | 1 | G | SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≤ 117 seconds |
| d. Reactor Vessel Water Level-Low, Level 3 (Confirmatory) | 1,2 ^(d) ,3 ^(d) | 1 | F | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≥ 8.3 inches |
| e. LPCS Pump Discharge Pressure-High | 1,2 ^(d) ,3 ^(d) | 2 | G | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(e) SR 3.3.5.1.4 ^(e) SR 3.3.5.1.5 | ≥ 125 psig and ≤ 176.3 psig |
| f. LPCI Pump A Discharge Pressure- High | 1,2 ^(d) ,3 ^(d) | 2 | G | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(e) SR 3.3.5.1.4 ^(e) SR 3.3.5.1.5 | ≥ 115 psig and ≤ 135 psig |
| g. ADS Drywell Pressure Bypass Timer | 1,2 ^(d) ,3 ^(d) | 2 | G | SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≤ 6.5 minutes |
| h. Manual Initiation | 1,2 ^(d) ,3 ^(d) | 2 | G | SR 3.3.5.1.5 | NA |

(continued)

(d) With reactor steam dome pressure > 150 psig.

- (e) 1. If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined As-Found Tolerance band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.
2. The instrument channel setpoint shall be reset to a value within the As-Left Tolerance of the Actual Trip Setpoint; otherwise, the channel shall be declared inoperable.
3. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined As-Found Tolerance and As-Left Tolerance bands shall be specified in the ORM.

Table 3.3.5.1-1 (page 5 of 5)
Emergency Core Cooling System Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION A.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|---|--|--------------------------------------|--|--|---------------------------|
| 5. ADS Trip System 2 (Logic B and F) | | | | | |
| a. Reactor Vessel Water Level-Low Low, Level 1 | 1,2 ^(d) ,3 ^(d) | 2 | F | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(e) SR 3.3.5.1.5 SR 3.3.5.1.6 ^(e) | ≥ -148.1 inches |
| b. Drywell Pressure-High | 1,2 ^(d) ,3 ^(d) | 2 | F | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≤ 1.88 psig |
| c. ADS Initiation Timer | 1,2 ^(d) ,3 ^(d) | 1 | G | SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≤ 117 seconds |
| d. Reactor Vessel Water Level-Low, Level 3 (Confirmatory) | 1,2 ^(d) ,3 ^(d) | 1 | F | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≥ 8.3 inches |
| e. LPCI Pumps B & C Discharge Pressure-High | 1,2 ^(d) ,3 ^(d) | 2 per pump | G | SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.3 ^(e) SR 3.3.5.1.4 ^(e) SR 3.3.5.1.5 | ≥ 115 psig and ≤ 135 psig |
| f. ADS Drywell Pressure Bypass Timer | 1,2 ^(d) ,3 ^(d) | 2 | G | SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.5 | ≤ 6.5 minutes |
| g. Manual Initiation | 1,2 ^(d) ,3 ^(d) | 2 | G | SR 3.3.5.1.5 | NA |

(d) With reactor steam dome pressure > 150 psig.

- (e) 1. If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined As-Found Tolerance band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable.
2. The instrument channel setpoint shall be reset to a value within the As-Left Tolerance of the Actual Trip Setpoint; otherwise, the channel shall be declared inoperable.
3. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined As-Found Tolerance and As-Left Tolerance bands shall be specified in the ORM.

SURVEILLANCE REQUIREMENTS

- NOTES-----
1. Refer to Table 3.3.5.2-1 to determine which SRs apply for each RCIC Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed as follows: (a) for up to 6 hours for Functions 2 and 5; and (b) for up to 6 hours for Functions 1, 3, and 4 provided the associated Function maintains RCIC initiation capability.
-

| SURVEILLANCE | | FREQUENCY |
|--------------|---------------------------------------|-----------|
| SR 3.3.5.2.1 | Perform CHANNEL CHECK. | 12 hours |
| SR 3.3.5.2.2 | Perform CHANNEL FUNCTIONAL TEST. | 92 days |
| SR 3.3.5.2.3 | Calibrate the analog trip module. | 92 days |
| SR 3.3.5.2.4 | Perform CHANNEL CALIBRATION. | 24 months |
| SR 3.3.5.2.5 | Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |
| SR 3.3.5.2.6 | Perform CHANNEL CALIBRATION. | 18 months |

Table 3.3.5.2-1 (page 1 of 1)
Reactor Core Isolation Cooling System Instrumentation

| FUNCTION | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION A.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|--------------------------------|--|--|-----------------|
| | | | | |
| 1. Reactor Vessel Water Level-Low Low, Level 2 | 4 | B | SR 3.3.5.2.1 SR 3.3.5.2.2 SR 3.3.5.2.3 SR 3.3.5.2.5 SR 3.3.5.2.6 | ≥ -48.1 inches |
| 2. Reactor Vessel Water Level-High, Level 8 | 2 | C | SR 3.3.5.2.1 SR 3.3.5.2.2 SR 3.3.5.2.3 SR 3.3.5.2.4 SR 3.3.5.2.5 | ≤ 52.6 inches |
| 3. RCIC Storage Tank Level-Low | 2 | D | SR 3.3.5.2.1 SR 3.3.5.2.2 SR 3.3.5.2.3 SR 3.3.5.2.4 SR 3.3.5.2.5 | ≥ 3.0 inches |
| 4. Suppression Pool Water Level-High | 2 | D | SR 3.3.5.2.1 SR 3.3.5.2.2 SR 3.3.5.2.3 SR 3.3.5.2.4 SR 3.3.5.2.5 | ≤ -5 inches |
| 5. Manual Initiation | 1 | C | SR 3.3.5.2.5 | NA |

SURVEILLANCE REQUIREMENTS

- NOTES-----
1. Refer to Table 3.3.6.1-1 to determine which SRs apply for each Primary Containment and Drywell Isolation Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours, provided the associated Function maintains isolation capability.

| SURVEILLANCE | | FREQUENCY |
|--------------|---|-------------------------------------|
| SR 3.3.6.1.1 | Perform CHANNEL CHECK. | 12 hours |
| SR 3.3.6.1.2 | Perform CHANNEL FUNCTIONAL TEST. | 92 days |
| SR 3.3.6.1.3 | Calibrate the analog trip module. | 92 days |
| SR 3.3.6.1.4 | Perform CHANNEL CALIBRATION. | 92 days |
| SR 3.3.6.1.5 | Perform CHANNEL CALIBRATION. | 24 months |
| SR 3.3.6.1.6 | Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |
| SR 3.3.6.1.7 | <p>-----NOTE-----</p> <ol style="list-style-type: none"> 1. Channel sensors are excluded. 2. The STAGGERED TEST BASIS Frequency for each Function shall be determined on a per channel basis. <p>-----</p> <p>Verify the ISOLATION SYSTEM RESPONSE TIME for the main steam isolation valves is within limits.</p> | 24 months on a STAGGERED TEST BASIS |
| SR 3.3.6.1.8 | Perform CHANNEL CALIBRATION. | 18 months |

Primary Containment and Drywell Isolation Instrumentation
3.3.6.1

Table 3.3.6.1-1 (page 1 of 6)
Primary Containment and Drywell Isolation Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION F.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|--|---|--|------------------------------|---------------------------|
| 1. Main Steam Line Isolation | | | | | |
| a. Reactor Vessel Water Level-Low Low Low, Level 1 | 1,2,3 | 4 | G | SR 3.3.6.1.1 | ≥ -148.1 inches |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.6 | |
| | | | | SR 3.3.6.1.7 | |
| | | | | SR 3.3.6.1.8 | |
| b. Main Steam Line Pressure-Low | 1 | 4 | H | SR 3.3.6.1.1 | ≥ 841 psig |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| | | | | SR 3.3.6.1.7 | |
| c. Main Steam Line Flow-High | 1,2,3 | 4 | G | SR 3.3.6.1.1 | ≤ 284 psid |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| | | | | SR 3.3.6.1.7 | |
| d. Condenser Vacuum-Low | 1,2 ^(a) , 3 ^(a) | 4 | G | SR 3.3.6.1.1 | ≥ 7.6 inches Hg vacuum |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| e. Main Steam Tunnel Temperature-High | 1,2,3 | 4 | G | SR 3.3.6.1.1 | ≤ 171°F |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| f. Main Steam Line Turbine Building Temperature-High | 1,2,3 | 4 | G | SR 3.3.6.1.1 | Modules 1-4 |
| | | | | SR 3.3.6.1.2 | ≤ 142°F, |
| | | | | SR 3.3.6.1.5 | Module 5 |
| | | | | SR 3.3.6.1.6 | ≤ 150°F |
| g. Manual Initiation | 1,2,3 | 4 | J | SR 3.3.6.1.6 | NA |

(continued)

(a) With any turbine stop valve not closed.

Primary Containment and Drywell Isolation Instrumentation
3.3.6.1

Table 3.3.6.1-1 (page 2 of 6)
Primary Containment and Drywell Isolation Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION F.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|--|---|--|------------------------------|--------------------|
| 2. Primary Containment and Drywell Isolation | | | | | |
| a. Reactor Vessel Water Level-Low Low, Level 2 | 1,2,3 | 4 ^(b) | K | SR 3.3.6.1.1 | ≥ -48.1 inches |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.6 | |
| | | | | SR 3.3.6.1.8 | |
| | 1 ^(c) | 4 | O | SR 3.3.6.1.1 | ≥ -48.1 inches |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.6 | |
| | | | | SR 3.3.6.1.8 | |
| b. Drywell Pressure-High | 1,2,3 | 4 ^(b) | K | SR 3.3.6.1.1 | ≤ 1.88 psig |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| c. Deleted | | | | | |
| d. Drywell Pressure-High (ECCS Divisions 1 and 2) | 1,2,3 | 4 ^(b) | I | SR 3.3.6.1.1 | ≤ 1.88 psig |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| e. Reactor Vessel Water Level-Low Low, Level 2 (HPCS NSPS Div 3 and 4) | 1,2,3 | 4 | I | SR 3.3.6.1.1 | ≥ -48.1 inches |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.6 | |
| | | | | SR 3.3.6.1.8 | |
| f. Drywell Pressure-High (HPCS NSPS Div 3 and 4) | 1,2,3 | 4 | I | SR 3.3.6.1.1 | ≤ 1.88 psig |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| (continued) | | | | | |

(b) Also required to initiate the associated drywell isolation function.

(c) During operations with a potential for draining the reactor vessel.

Primary Containment and Drywell Isolation Instrumentation
3.3.6.1

Table 3.3.6.1-1 (page 3 of 6)
Primary Containment and Drywell Isolation Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION F.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|---|--|---|--|------------------------------|--------------------|
| 2. Primary Containment and Drywell Isolation (continued) | | | | | |
| g. Containment Building Fuel Transfer Pool Ventilation Plenum Radiation-High | (c), (d) | 4 | N | SR 3.3.6.1.1 | ≤ 500 mR/hr |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| h. Containment Building Exhaust Radiation-High | 1, 2, 3 | 4 ^(b) | I | SR 3.3.6.1.1 | ≤ 400 mR/hr |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| | (c), (d) | 4 | N | SR 3.3.6.1.1 | ≤ 400 mR/hr |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| i. Containment Building Continuous Containment Purge (CCP) Exhaust Radiation-High | 1, 2, 3 | 4 ^(b) | I | SR 3.3.6.1.1 | ≤ 400 mR/hr |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| | (c), (d) | 4 | N | SR 3.3.6.1.1 | ≤ 400 mR/hr |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| j. Reactor Vessel Water Level-Low Low Low, Level 1 | 1, 2, 3 | 4 ^(b) | I | SR 3.3.6.1.1 | ≥ -148.1 inches |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.6 | |
| | (c) | 4 | O | SR 3.3.6.1.1 | ≥ -148.1 inches |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.3 | |
| | | | | SR 3.3.6.1.6 | |
| k. Containment Pressure-High | (e) | 2 | I | SR 3.3.6.1.1 | ≤ 3.0 psid |
| | | | | SR 3.3.6.1.2 | |
| | | | | SR 3.3.6.1.5 | |
| | | | | SR 3.3.6.1.6 | |
| l. Manual Initiation | 1, 2, 3 | 2 ^(b) | J | SR 3.3.6.1.6 | NA |
| | (c), (d) | 2 | N | SR 3.3.6.1.6 | NA |

(continued)

(b) Also required to initiate the associated drywell isolation function.

(c) During operations with a potential for draining the reactor vessel.

(d) During movement of recently irradiated fuel assemblies in the primary or secondary containment.

(e) MODES 1, 2, and 3 with the associated PCIVs not closed.

Primary Containment and Drywell Isolation Instrumentation
3.3.6.1

Table 3.3.6.1-1 (page 4 of 6)
Primary Containment and Drywell Isolation Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION F.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|---|--|---|--|--|-------------------------|
| 3. Reactor Core Isolation Cooling (RCIC) System Isolation | | | | | |
| a. Auxiliary Building RCIC Steam Line Flow-High | 1,2,3 | 2 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 118.5 inches water |
| b. RCIC Steam Line Flow-High, Time Delay | 1,2,3 | 2 | I | SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 13 seconds |
| c. RCIC Steam Supply Line Pressure-Low | 1,2,3 | 2 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≥ 52 psig |
| d. RCIC Turbine Exhaust Diaphragm Pressure-High | 1,2,3 | 4 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 20 psig |
| e. RCIC Equipment Room Ambient Temperature-High | 1,2,3 | 2 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 207°F |
| f. Main Steam Line Tunnel Ambient Temperature-High | 1,2,3 | 2 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 171°F |
| g. Main Steam Line Tunnel Temperature Timer | 1,2,3 | 2 | I | SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 28 minutes |
| h. Reactor Vessel Water Level-Low Low, Level 2 | 1,2,3 | 4 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.6 SR 3.3.6.1.8 | ≥ -48.1 inches |
| i. Drywell RCIC Steam Line Flow - High | 1,2,3 | 2 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 188 inches water |

(continued)

Primary Containment and Drywell Isolation Instrumentation
3.3.6.1

Table 3.3.6.1-1 (page 5 of 6)
Primary Containment and Drywell Isolation Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION F.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|--|---|--|--|--------------------|
| 3. RCIC System Isolation (continued) | | | | | |
| j. Drywell Pressure - High | 1,2,3 | 2 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 1.88 psig |
| k. Manual Initiation | 1,2,3 | 1 | J | SR 3.3.6.1.6 | NA |
| 4. Reactor Water Cleanup (RWCU) System Isolation | | | | | |
| a. Differential Flow - High | 1,2,3 | 2 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.6 SR 3.3.6.1.8 | ≤ 66.1 gpm |
| b. Differential Flow-Timer | 1,2,3 | 2 | I | SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6 | ≤ 47 seconds |
| c. RWCU Heat Exchanger Equipment Room Temperature-High | 1,2,3 | 2 per room | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 205°F |
| d. RWCU Pump Rooms Temperature-High | 1,2,3 | 2 per room | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 202°F |
| e. Main Steam Line Tunnel Ambient Temperature- High | 1,2,3 | 2 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 171°F |
| f. Reactor Vessel Water Level-Low Low, Level 2 | 1,2,3 | 4 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.6 SR 3.3.6.1.8 | ≥ -48.1 inches |
| | (c) | 4 | O | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.6 SR 3.3.6.1.8 | ≥ -48.1 inches |
| g. Standby Liquid Control System Initiation | 1,2,3 | 2 | L | SR 3.3.6.1.6 | NA |
| h. Manual Initiation | 1,2,3 | 2 | J | SR 3.3.6.1.6 | NA |
| | (c), (d) | 2 | N | SR 3.3.6.1.6 | NA |

(continued)

(c) During operations with a potential for draining the reactor vessel.

(d) During movement of recently irradiated fuel assemblies in the primary or secondary containment.

Primary Containment and Drywell Isolation Instrumentation
3.3.6.1

Table 3.3.6.1-1 (page 6 of 6)
Primary Containment and Drywell Isolation Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER FUNCTION | CONDITIONS REFERENCED FROM REQUIRED ACTION F.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|--|--------------------------------------|--|--|--------------------|
| 5. RHR System Isolation | | | | | |
| a. RHR Heat Exchanger Ambient Temperature-High | 1,2,3 | 2 per room | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 160°F |
| b. Reactor Vessel Water Level - Low, Level 3 | 1,2,3 ^(f) | 4 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≥ 8.3 inches |
| c. Reactor Vessel Water Level - Low, Level 3 | 3 ^(g) , 4, 5 | 4 ^(h) | M | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≥ 8.3 inches |
| d. Reactor Vessel Water Level - Low Low Low, Level 1 | 1,2,3 | 4 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.6 SR 3.3.6.1.8 | ≥ -148.1 inches |
| e. Reactor Vessel Pressure-High | 1,2,3 | 4 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 113 psig |
| f. Drywell Pressure-High | 1,2,3 | 8 | I | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.3 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 1.88 psig |
| g. Manual Initiation | 1,2,3 | 2 | J | SR 3.3.6.1.6 | NA |

(f) With reactor steam dome pressure greater than or equal to the RHR cut in permissive pressure.

(g) With reactor steam dome pressure less than the RHR cut in permissive pressure.

(h) Only one trip system required in MODES 4 and 5 with RHR Shutdown Cooling System integrity maintained.

SURVEILLANCE REQUIREMENTS

- NOTES-----
1. Refer to Table 3.3.6.2-1 to determine which SRs apply for each Secondary Containment Isolation Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours, provided the associated Function maintains secondary containment isolation capability.
-

| SURVEILLANCE | | FREQUENCY |
|--------------|---------------------------------------|-----------|
| SR 3.3.6.2.1 | Perform CHANNEL CHECK. | 12 hours |
| SR 3.3.6.2.2 | Perform CHANNEL FUNCTIONAL TEST. | 92 days |
| SR 3.3.6.2.3 | Calibrate the analog trip module. | 92 days |
| SR 3.3.6.2.4 | Perform CHANNEL CALIBRATION. | 24 months |
| SR 3.3.6.2.5 | Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |
| SR 3.3.6.2.6 | Perform CHANNEL CALIBRATION. | 18 months |

Secondary Containment Isolation Instrumentation
3.3.6.2

Table 3.3.6.2-1 (page 1 of 1)
Secondary Containment Isolation Instrumentation

| FUNCTION | | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER TRIP SYSTEM | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|----------|--|--|--|--|--------------------|
| 1. | Reactor Vessel Water Level-Low Low, Level 2 | 1,2,3, (a) | 2 | SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.5 SR 3.3.6.2.6 | ≥ -48.1 inches |
| 2. | Drywell Pressure-High | 1,2,3 | 2 | SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4 SR 3.3.6.2.5 | ≤ 1.88 psig |
| 3. | Containment Building Fuel Transfer Pool Ventilation Plenum Exhaust Radiation-High | (a), (b) | 2 | SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5 | ≤ 500 mR/hr |
| 4. | Containment Building Exhaust Radiation-High | 1,2,3, (a), (b) | 2 | SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5 | ≤ 400 mR/hr |
| 5. | Containment Building Continuous Containment Purge (CCP) Exhaust Radiation-High | 1,2,3, (a), (b) | 2 | SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5 | ≤ 400 mR/hr |
| 6. | Fuel Building Exhaust Radiation-High | 1,2,3, (c) | 2 | SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5 | ≤ 17 mR/hr |
| 7. | Manual Initiation | 1,2,3, (a), (b) | 1 | SR 3.3.6.2.5 | NA |

(a) During operations with a potential for draining the reactor vessel.

(b) During movement of recently irradiated fuel assemblies in the primary or secondary containment.

(c) During movement of recently irradiated fuel assemblies in the fuel building.

SURVEILLANCE REQUIREMENTS

- NOTES-----
1. Refer to Table 3.3.6.3-1 to determine which SRs apply for each RHR Containment Spray System Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours, provided the associated Function maintains RHR containment spray initiation capability.
-

| SURVEILLANCE | | FREQUENCY |
|--------------|---------------------------------------|-----------|
| SR 3.3.6.3.1 | Perform CHANNEL CHECK. | 12 hours |
| SR 3.3.6.3.2 | Perform CHANNEL FUNCTIONAL TEST. | 92 days |
| SR 3.3.6.3.3 | Calibrate the analog trip module. | 92 days |
| SR 3.3.6.3.4 | Perform CHANNEL CALIBRATION. | 24 months |
| SR 3.3.6.3.5 | Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |
| SR 3.3.6.3.6 | Perform CHANNEL CALIBRATION. | 18 months |

RHR Containment Spray System Instrumentation
3.3.6.3

Table 3.3.6.3-1 (page 1 of 1)
RHR Containment Spray System Instrumentation

| FUNCTION | REQUIRED CHANNELS PER TRIP SYSTEM | CONDITIONS REFERENCED FROM REQUIRED ACTION A.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|--|--|--|------------------------------------|
| 1. Drywell Pressure-High | 2 | B | SR 3.3.6.3.1 SR 3.3.6.3.2 SR 3.3.6.3.3 SR 3.3.6.3.4 SR 3.3.6.3.5 | ≤ 1.88 psig |
| 2. Containment Pressure-High | 2 | B | SR 3.3.6.3.1 SR 3.3.6.3.2 SR 3.3.6.3.3 SR 3.3.6.3.4 SR 3.3.6.3.5 | ≤ 22.4 psia |
| 3. Reactor Vessel Water Level-Low Low Low, Level 1 | 2 | B | SR 3.3.6.3.1 SR 3.3.6.3.2 SR 3.3.6.3.3 SR 3.3.6.3.5 SR 3.3.6.3.6 | ≥ -148.1 inches |
| 4. Timers, System A and System B | 1 | C | SR 3.3.6.3.2 SR 3.3.6.3.4 SR 3.3.6.3.5 | ≥ 606 seconds and ≤ 614 seconds |
| 5. Timer, System B Only | 1 | C | SR 3.3.6.3.2 SR 3.3.6.3.4 SR 3.3.6.3.5 | ≤ 90.6 seconds |
| 6. Manual Initiation | 1 | C | SR 3.3.6.3.5 | NA |

SURVEILLANCE REQUIREMENTS

-----NOTES-----

1. Refer to Table 3.3.6.4-1 to determine which SRs apply for each SPMU Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours, provided the associated Function maintains SPMU initiation capability.
-

| SURVEILLANCE | | FREQUENCY |
|--------------|---------------------------------------|-----------|
| SR 3.3.6.4.1 | Perform CHANNEL CHECK. | 12 hours |
| SR 3.3.6.4.2 | Perform CHANNEL FUNCTIONAL TEST. | 92 days |
| SR 3.3.6.4.3 | Calibrate the analog trip module. | 92 days |
| SR 3.3.6.4.4 | Calibrate the analog comparator unit. | 92 days |
| SR 3.3.6.4.5 | Perform CHANNEL CALIBRATION. | 92 days |
| SR 3.3.6.4.6 | Perform CHANNEL CALIBRATION. | 24 months |
| SR 3.3.6.4.7 | Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |
| SR 3.3.6.4.8 | Perform CHANNEL CALIBRATION. | 18 months |

Table 3.3.6.4-1 (page 1 of 1)
Suppression Pool Makeup System Instrumentation

| FUNCTION | REQUIRED CHANNELS PER TRIP SYSTEM | CONDITIONS REFERENCED FROM REQUIRED ACTION A.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|-----------------------------------|--|--|-----------------|
| 1. Drywell Pressure-High | 2 | B | SR 3.3.6.4.1 SR 3.3.6.4.2 SR 3.3.6.4.3 SR 3.3.6.4.6 SR 3.3.6.4.7 | ≤ 1.88 psig |
| 2. Reactor Vessel Water Level-Low Low Low, Level 1 | 2 | B | SR 3.3.6.4.1 SR 3.3.6.4.2 SR 3.3.6.4.3 SR 3.3.6.4.7 SR 3.3.6.4.8 | ≥ -148.1 inches |
| 3. Suppression Pool Water Level-Low Low | 2 | B | SR 3.3.6.4.1 SR 3.3.6.4.2 SR 3.3.6.4.4 SR 3.3.6.4.6 SR 3.3.6.4.7 | ≥ 29 inches |
| 4. Timer | 1 | C | SR 3.3.6.4.2 SR 3.3.6.4.5 SR 3.3.6.4.7 | ≤ 30 minutes |
| 5. Manual Initiation | 2 | C | SR 3.3.6.4.7 | NA |

SURVEILLANCE REQUIREMENTS

-----NOTE-----
When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours, provided the associated Function maintains LLS or relief initiation capability, as applicable.

| SURVEILLANCE | | FREQUENCY |
|--|--|-----------|
| SR 3.3.6.5.1 | Perform CHANNEL FUNCTIONAL TEST. | 92 days |
| -----NOTE----- 1. If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined As-Found Tolerance band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable. 2. The instrument channel setpoint shall be reset to a value within the As-Left Tolerance of the Actual Trip Setpoint; otherwise, the channel shall be declared inoperable. 3. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined As-Found Tolerance and As-Left Tolerance bands shall be specified in the ORM. ----- | | 92 days |
| SR 3.3.6.5.2 | Calibrate the analog trip module. | 92 days |
| -----NOTE----- 1. If the as-found channel setpoint is conservative with respect to the Allowable Value but outside its predefined As-Found Tolerance band, then the channel shall be evaluated to verify that it is functioning as required before returning the channel to service. If the as-found instrument channel setpoint is not conservative with respect to the Allowable Value, the channel shall be declared inoperable. 2. The instrument channel setpoint shall be reset to a value within the As-Left Tolerance of the Actual Trip Setpoint; otherwise, the channel shall be declared inoperable. 3. The Nominal Trip Setpoint and the methodology used to determine the Nominal Trip Setpoint, the predefined As-Found Tolerance and As-Left Tolerance bands shall be specified in the ORM. ----- | | 24 months |
| SR 3.3.6.5.3 | Perform CHANNEL CALIBRATION. The Allowable Values shall be: a. Relief Function Low: ≤ 1118 psig Medium: ≤ 1128 psig High: ≤ 1138 psig b. LLS Function Low open: ≤ 1044 psig close: ≤ 937 psig Medium open: ≤ 1084 psig close: ≤ 947 psig High open: ≤ 1124 psig close: ≤ 957 psig | 24 months |
| SR 3.3.6.5.4 | Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |

ACTIONS (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|---|-----------------|
| B. Required Action and associated Completion Time not met. | B.1 Place one Control Room Ventilation subsystem in the high radiation mode of operation. | 1 hour |
| | <u>OR</u> B.2 Declare associated Control Room Ventilation subsystem inoperable. | 1 hour |

SURVEILLANCE REQUIREMENTS

- NOTES-----
1. Refer to Table 3.3.7.1-1 to determine which SRs apply for each Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains Control Room Ventilation initiation capability.
-

| SURVEILLANCE | FREQUENCY |
|---|-----------|
| SR 3.3.7.1.1 Perform CHANNEL CHECK. | 12 hours |
| SR 3.3.7.1.2 Perform CHANNEL FUNCTIONAL TEST. | 92 days |
| SR 3.3.7.1.3 Perform CHANNEL CALIBRATION. | 24 months |

SURVEILLANCE REQUIREMENTS

- NOTES-----
1. Refer to Table 3.3.8.1-1 to determine which SRs apply for each LOP Function.
 2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 2 hours provided the associated Function maintains DG initiation capability.
-

| SURVEILLANCE | | FREQUENCY |
|--------------|---------------------------------------|-----------|
| SR 3.3.8.1.1 | Deleted | |
| SR 3.3.8.1.2 | Perform CHANNEL FUNCTIONAL TEST. | 31 days |
| SR 3.3.8.1.3 | Perform CHANNEL CALIBRATION. | 24 months |
| SR 3.3.8.1.4 | Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |

Table 3.3.8.1-1 (page 1 of 1)
Loss of Power Instrumentation

| FUNCTION | REQUIRED CHANNELS PER DIVISION | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|---|--|---|
| 1. Divisions 1 and 2 - 4.16 kV Emergency Bus Undervoltage | | | |
| a. Loss of Voltage - 4.16 kV basis | 6 | SR 3.3.8.1.3 SR 3.3.8.1.4 | $\geq 2345 \text{ V}$ and $\leq 3395 \text{ V}$ |
| b. Loss of Voltage - Time Delay | 6 | SR 3.3.8.1.3 SR 3.3.8.1.4 | $\leq 5.0 \text{ seconds}$ |
| c. Degraded Voltage Reset - 4.16 kV basis | 2 | SR 3.3.8.1.2 SR 3.3.8.1.3 SR 3.3.8.1.4 | $\geq 4102.2 \text{ V}$ and $\leq 4109.3 \text{ V}$ |
| d. Degraded Voltage Drop-out - 4.16 kV basis | 2 | SR 3.3.8.1.2 SR 3.3.8.1.3 SR 3.3.8.1.4 | $\geq 4051 \text{ V}$ |
| e. Degraded Voltage-Time Delay | 1 | SR 3.3.8.1.2 SR 3.3.8.1.3 SR 3.3.8.1.4 | $\geq 14 \text{ seconds}$ and $\leq 16 \text{ seconds}$ |
| 2. Division 3 - 4.16 kV Emergency Bus Undervoltage | | | |
| a. Loss of Voltage - 4.16 kV basis | 4 | SR 3.3.8.1.3 SR 3.3.8.1.4 | $\geq 2345 \text{ V}$ and $\leq 2730 \text{ V}$ |
| b. Loss of Voltage - Time Delay | 1 | SR 3.3.8.1.3 SR 3.3.8.1.4 | $\leq 3.0 \text{ seconds}$ |
| c. Degraded Voltage Reset - 4.16 kV basis | 2 | SR 3.3.8.1.2 SR 3.3.8.1.3 SR 3.3.8.1.4 | $\geq 4102.2 \text{ V}$ and $\leq 4109.3 \text{ V}$ |
| d. Degraded Voltage Drop-out - 4.16 kV basis | 2 | SR 3.3.8.1.2 SR 3.3.8.1.3 SR 3.3.8.1.4 | $\geq 4051 \text{ V}$ |
| e. Degraded Voltage - Time Delay | 1 | SR 3.3.8.1.2 SR 3.3.8.1.3 SR 3.3.8.1.4 | $\geq 13.2 \text{ seconds}$ and $\leq 16.8 \text{ seconds}$ |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|-----------|
| <p>SR 3.3.8.2.1 -----NOTE----- Only required to be performed prior to entering MODE 2 or 3 from MODE 4, when in MODE 4 for ≥ 24 hours. -----</p> <p>Perform CHANNEL FUNCTIONAL TEST.</p> | 184 days |
| <p>SR 3.3.8.2.2 Perform CHANNEL CALIBRATION. The Allowable Values shall be:</p> <p>a. Overvoltage</p> <p>Bus A ≤ 127.3 V Bus B ≤ 126.7 V</p> <p>b. Undervoltage</p> <p>Bus A ≥ 115.0 V Bus B ≥ 114.7 V</p> <p>c. Underfrequency (with time delay ≤ 4.0 seconds)</p> <p>Bus A ≥ 57 Hz Bus B ≥ 57 Hz</p> | 24 months |
| <p>SR 3.3.8.2.3 Perform a system functional test.</p> | 24 months |

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.2 Flow Control Valves (FCVs)

LCO 3.4.2 A recirculation loop FCV shall be OPERABLE in each operating recirculation loop.

APPLICABILITY: MODES 1 and 2.

ACTIONS

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

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|----------------------|-----------------|
| A. One or two required FCVs inoperable. | A.1 Lock up the FCV. | 4 hours |
| B. Required Action and associated Completion Time not met. | B.1 Be in MODE 3. | 12 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|-----------|
| SR 3.4.2.1 Verify each FCV fails "as is" on loss of hydraulic pressure at the hydraulic unit. | 24 months |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY | | | | | | | | |
|----------------------------|--|----------------------------|----------------------------|---|-------------|---|-------------|---|-------------|--|
| SR 3.4.4.1 | <p>Verify the safety function lift setpoints of the required S/RVs are as follows:</p> <table><tr><th><u>Number of S/RVs</u></th><th><u>Setpoint (psig)</u></th></tr><tr><td>7</td><td>1165 ± 34.9</td></tr><tr><td>5</td><td>1180 ± 35.4</td></tr><tr><td>4</td><td>1190 ± 35.7</td></tr></table> <p>Following testing, lift settings shall be within ± 1%.</p> | <u>Number of S/RVs</u> | <u>Setpoint (psig)</u> | 7 | 1165 ± 34.9 | 5 | 1180 ± 35.4 | 4 | 1190 ± 35.7 | In accordance with the Inservice Testing Program |
| <u>Number of S/RVs</u> | <u>Setpoint (psig)</u> | | | | | | | | | |
| 7 | 1165 ± 34.9 | | | | | | | | | |
| 5 | 1180 ± 35.4 | | | | | | | | | |
| 4 | 1190 ± 35.7 | | | | | | | | | |
| SR 3.4.4.2 | <p>-----NOTE----- Valve actuation may be excluded. -----</p> <p>Verify each required relief function S/RV actuates on an actual or simulated automatic initiation signal.</p> | 24 months | | | | | | | | |
| SR 3.4.4.3 | <p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify each required S/RV actuator strokes when manually actuated.</p> | 24 months | | | | | | | | |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|--|-----------|
| SR 3.4.7.1 | Perform CHANNEL CHECK of required drywell atmospheric monitoring system. | 12 hours |
| SR 3.4.7.2 | Perform CHANNEL FUNCTIONAL TEST of required leakage detection instrumentation. | 31 days |
| SR 3.4.7.3 | Perform CHANNEL CALIBRATION of required leakage detection instrumentation. | 24 months |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | | FREQUENCY |
|--------------|---|-----------|
| SR 3.5.1.5 | <p>-----NOTE----- Vessel injection/spray may be excluded. -----</p> <p>Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.</p> | 24 months |
| SR 3.5.1.6 | <p>-----NOTE----- Valve actuation may be excluded. -----</p> <p>Verify the ADS actuates on an actual or simulated automatic initiation signal.</p> | 24 months |
| SR 3.5.1.7 | <p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify each ADS valve actuator strokes when manually actuated.</p> | 24 months |
| SR 3.5.1.8 | <p>-----NOTE----- ECCS actuation instrumentation is excluded. -----</p> <p>Verify the ECCS RESPONSE TIME for each ECCS injection/spray subsystem is within limits.</p> | 24 months |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | | | FREQUENCY |
|--------------|---|-----------------------------------|--|
| SR 3.5.2.5 | Verify each required ECCS pump develops the specified flow rate with the specified pump differential pressure. | | In accordance with the Inservice Testing Program |
| | <u>SYSTEM</u> | <u>FLOW RATE</u> | |
| | | <u>PUMP DIFFERENTIAL PRESSURE</u> | |
| | LPCS | ≥ 5010 gpm | |
| | LPCI | ≥ 5050 gpm | |
| | HPCS | ≥ 5010 gpm | |
| SR 3.5.2.6 | -----NOTE----- Vessel injection/spray may be excluded. ----- | | 24 months |
| | Verify each required ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal. | | |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|-----------|
| SR 3.5.3.1 Verify the RCIC System piping is filled with water from the pump discharge valve to the injection valve. | 31 days |
| SR 3.5.3.2 Verify each RCIC System manual, power operated, and automatic valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position. | 31 days |
| SR 3.5.3.3 -----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. ----- Verify, with RCIC steam supply pressure ≤ 1020 psig and ≥ 920 psig, the RCIC pump can develop a flow rate ≥ 600 gpm against a system head corresponding to reactor pressure. | 92 days |
| SR 3.5.3.4 -----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. ----- Verify, with RCIC steam supply pressure ≤ 150 psig and ≥ 135 psig, the RCIC pump can develop a flow rate ≥ 600 gpm against a system head corresponding to reactor pressure. | 24 months |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|--|------------------|
| <p>SR 3.5.3.5 -----NOTE----- Vessel injection may be excluded. ----- Verify the RCIC System actuates on an actual or simulated automatic initiation signal.</p> | <p>24 months</p> |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|---|--|
| SR 3.6.1.3.4 Verify the isolation time of each power operated and each automatic PCIV, except MSIVs, is within limits. | In accordance with the Inservice Testing Program |
| SR 3.6.1.3.5 -----NOTE----- Only required to be met in MODES 1, 2, and 3. ----- Perform leakage rate testing for each primary containment purge valve with resilient seals. | Once within 92 days after opening the valve <u>AND</u> In accordance with the Primary Containment Leakage Rate Testing Program |
| SR 3.6.1.3.6 Verify the isolation time of each MSIV is ≥ 3 seconds and ≤ 5 seconds. | In accordance with the Inservice Testing Program |
| SR 3.6.1.3.7 Verify each automatic PCIV actuates to the isolation position on an actual or simulated isolation signal. | 24 months |

(continued)

| SURVEILLANCE | | FREQUENCY |
|---------------|--|--|
| SR 3.6.1.3.11 | <p>-----NOTE----- Only required to be met in MODES 1, 2, and 3. -----</p> <p>Verify that the combined leakage rate for both primary containment feedwater penetrations is ≤ 2 gpm when pressurized to $\geq 1.1 P_a$.</p> | In accordance with the Primary Containment Leakage Rate Testing Program. |
| SR 3.6.1.3.12 | Verify each instrumentation line excess flow check primary containment isolation valve actuates within the required range. | 24 months |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|------------------|
| <p>SR 3.6.1.6.1 -----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify each LLS valve actuator strokes when manually actuated.</p> | <p>24 months</p> |
| <p>SR 3.6.1.6.2 -----NOTE----- Valve actuation may be excluded. -----</p> <p>Verify the LLS System actuates on an actual or simulated automatic initiation signal.</p> | <p>24 months</p> |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|--|
| <p>SR 3.6.1.7.1 -----NOTE----- RHR containment spray subsystems may be considered OPERABLE during alignment and operation for decay heat removal when below the RHR cut in permissive pressure in MODE 3 if capable of being manually realigned and not otherwise inoperable. -----</p> <p>Verify each RHR containment spray subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.</p> | <p>31 days</p> |
| <p>SR 3.6.1.7.2 Verify each RHR pump develops a flow rate of ≥ 3800 gpm on recirculation flow through the associated heat exchanger to the suppression pool.</p> | <p>In accordance with the Inservice Testing Program</p> |
| <p>SR 3.6.1.7.3 Verify each RHR containment spray subsystem automatic valve in the flow path actuates to its correct position on an actual or simulated automatic initiation signal.</p> | <p>24 months</p> |
| <p>SR 3.6.1.7.4 Verify each spray nozzle is unobstructed.</p> | <p>Following activities that could result in nozzle blockage</p> |

3.6 CONTAINMENT SYSTEMS

3.6.1.9 Feedwater Leakage Control System (FWLCS)

LCO 3.6.1.9 Two FWLCS subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|--------------------------|
| A. One FWLCS subsystem inoperable. | A.1 Restore FWLCS subsystem to OPERABLE status. | 30 days |
| B. Two FWLCS subsystems inoperable. | B.1 Restore one FWLCS subsystem to OPERABLE status. | 7 days |
| C. Required Action and associated Completion Time not met. | C.1 Be in MODE 3. <u>AND</u> C.2 Be in MODE 4. | 12 hours 36 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|-----------|
| SR 3.6.1.9.1 Perform a system functional test of each FWLCS subsystem. | 24 months |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|-----------|
| <p>SR 3.6.2.4.1 Verify upper containment pool water level is:</p> <p>a. \geq el. 825 ft 6 inches;</p> <p>b. \geq el. 825 ft 10 inches when the inclined fuel transfer pool to steam dryer storage pool gate is not open; and</p> <p>c. \geq el. 827 ft 1 inch when the reactor cavity to steam dryer storage pool gate is not open.</p> <p><u>OR</u></p> <p>d. Reactor cavity pool level \geq el. 824 ft 7 inches in MODE 3 with reactor pressure less than 235 psig.</p> <p><u>OR</u></p> <p>e. Suppression pool water level \geq 19 ft 9 inches in MODE 3 with reactor pressure less than 235 psig.</p> | 24 hours |
| <p>SR 3.6.2.4.2 Verify upper containment pool water temperature is $\leq 120^{\circ}\text{F}$.</p> | 24 hours |
| <p>SR 3.6.2.4.3 Verify each SPMU subsystem manual, power operated, and automatic valve that is not locked, sealed, or otherwise secured in position is in the correct position.</p> | 31 days |
| <p>SR 3.6.2.4.4 -----NOTE----- Actual makeup to the suppression pool may be excluded. -----</p> <p>Verify each SPMU subsystem automatic valve actuates to the correct position on an actual or simulated automatic initiation signal.</p> | 24 months |

ACTIONS (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|-------------------|-----------------|
| C. Required Action and associated Completion Time not met. | C.1 Be in MODE 3. | 12 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|--|-----------|
| SR 3.6.3.2.1 | Energize each primary containment and drywell hydrogen igniter division and perform current versus voltage measurements to verify required igniters in service. | 184 days |
| SR 3.6.3.2.2 | <p>-----NOTE----- Not required to be performed until 92 days after discovery of four or more igniters in the division inoperable. -----</p> <p>Energize each primary containment and drywell hydrogen igniter division and perform current versus voltage measurements to verify required igniters in service.</p> | 92 days |
| SR 3.6.3.2.3 | Verify each required igniter in inaccessible areas develops sufficient current draw for a $\geq 1700^{\circ}\text{F}$ surface temperature. | 24 months |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | | FREQUENCY |
|--------------|--|-----------|
| SR 3.6.3.2.4 | Verify each required igniter in accessible areas develops a surface temperature of $\geq 1700^{\circ}\text{F}$. | 24 months |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|--|-----------|
| SR 3.6.3.3.1 | Operate each Containment/Drywell Hydrogen Mixing System. | 92 days |
| SR 3.6.3.3.2 | Verify each Containment/Drywell Hydrogen Mixing System flow rate is ≥ 800 scfm. | 24 months |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | | FREQUENCY |
|--------------|--|-------------------------------------|
| SR 3.6.4.1.3 | Verify one door in each access to secondary containment is closed, except during normal entry and exit. | 31 days |
| SR 3.6.4.1.4 | Verify each standby gas treatment (SGT) subsystem will draw down the secondary containment to ≥ 0.25 inch of vacuum water gauge within the time required. | 24 months on a STAGGERED TEST BASIS |
| SR 3.6.4.1.5 | Verify each SGT subsystem can maintain ≥ 0.25 inch of vacuum water gauge in the secondary containment for 1 hour at a flow rate ≤ 4400 cfm. | 24 months on a STAGGERED TEST BASIS |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|---|-----------|
| SR 3.6.4.2.1 | <p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. Valves, dampers, and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for SCIDs that are open under administrative controls. <p>-----</p> <p>Verify each secondary containment isolation manual valve, damper, and blind flange that is required to be closed during accident conditions is closed.</p> | 31 days |
| SR 3.6.4.2.2 | Verify the isolation time of each power operated and each automatic SCID is within limits. | 92 days |
| SR 3.6.4.2.3 | Verify each automatic SCID actuates to the isolation position on an actual or simulated automatic isolation signal. | 24 months |

ACTIONS (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|---|-----------------|
| E. Two SGT subsystems inoperable during movement of recently irradiated fuel assemblies in the primary or secondary containment, or during OPDRVs. | E.1 Suspend movement of recently irradiated fuel assemblies in the primary and secondary containment. | Immediately |
| | <u>AND</u> E.2 Initiate action to suspend OPDRVs. | Immediately |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|---|-----------------------------|
| SR 3.6.4.3.1 | Operate each SGT subsystem for ≥ 10 continuous hours with heaters operating. | 31 days |
| SR 3.6.4.3.2 | Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP). | In accordance with the VFTP |
| SR 3.6.4.3.3 | Verify each SGT subsystem actuates on an actual or simulated initiation signal. | 24 months |
| SR 3.6.4.3.4 | Verify each SGT filter cooling bypass damper can be opened and the fan started. | 24 months |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|---|--|
| <p>SR 3.6.5.3.3 -----NOTES-----</p> <ol style="list-style-type: none"> 1. Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Not required to be met for drywell isolation valves that are open under administrative controls. <p>-----</p> <p>Verify each required drywell isolation manual valve and blind flange that is required to be closed during accident conditions is closed.</p> | <p>Prior to entering MODE 2 or 3 from MODE 4, if not performed in the previous 92 days</p> |
| <p>SR 3.6.5.3.4 Verify the isolation time of each required power operated and each required automatic drywell isolation valve is within limits.</p> | <p>In accordance with the Inservice Testing Program</p> |
| <p>SR 3.6.5.3.5 Verify each required automatic drywell isolation valve actuates to the isolation position on an actual or simulated isolation signal.</p> | <p>24 months</p> |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|-----------|
| <p>SR 3.6.5.6.1 -----NOTES-----</p> <ol style="list-style-type: none"> 1. Not required to be met for drywell post-LOCA vacuum relief valves open during Surveillances. 2. Not required to be met for drywell post-LOCA vacuum relief valves open when performing their intended function. <p>-----</p> <p>Verify each drywell post-LOCA vacuum relief valve is closed.</p> | 7 days |
| <p>SR 3.6.5.6.2 Perform a functional test of each drywell post-LOCA vacuum relief valve.</p> | 31 days |
| <p>SR 3.6.5.6.3 Verify the opening pressure differential of each drywell post-LOCA vacuum relief valve is ≤ 0.2 psid.</p> | 24 months |

Actions (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|-------------------|-----------------|
| C. Required Action and associated Completion Time of Condition A or B not met. | C.1 Be in MODE 3. | 12 hours |
| | <u>AND</u> | |
| | C.2 Be in MODE 4. | 36 hours |
| <u>OR</u> | | |
| Division 1 and 2 SX subsystems inoperable. | | |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|---|
| SR 3.7.1.1 Verify UHS water volume is \geq 593 acre-ft. | In accordance with UHS Erosion, Sediment Monitoring, and Dredging Program |
| SR 3.7.1.2 Verify each required SX subsystem manual, power operated, and automatic valve in the flow path servicing safety related systems or components, that is not locked, sealed, or otherwise secured in position, is in the correct position. | 31 days |
| SR 3.7.1.3 Verify each SX subsystem actuates on an actual or simulated initiation signal. | 24 months |

3.7 PLANT SYSTEMS

3.7.2 Division 3 Shutdown Service Water (SX) Subsystem

LCO 3.7.2 The Division 3 SX subsystem shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|---|-----------------|
| A. Division 3 SX subsystem inoperable. | A.1 Declare High Pressure Core Spray System inoperable. | Immediately |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|---|-----------|
| SR 3.7.2.1 | Verify each required Division 3 SX subsystem manual, power operated, and automatic valve in the flow path servicing safety related systems or components, that is not locked, sealed, or otherwise secured in position, is in the correct position. | 31 days |
| SR 3.7.2.2 | Verify the Division 3 SX subsystem actuates on an actual or simulated initiation signal. | 24 months |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | | FREQUENCY |
|--------------|--|-------------------------------------|
| SR 3.7.3.4 | Verify each Control Room Ventilation subsystem actuates on an actual or simulated initiation signal. | 24 months |
| SR 3.7.3.5 | Verify the air inleakage rate of the negative pressure portions of the Control Room Ventilation System is ≤ 650 cfm. | 24 months |
| SR 3.7.3.6 | Verify each Control Room Ventilation subsystem can maintain a positive pressure of $\geq 1/8$ inch water gauge relative to adjacent areas during the high radiation mode of operation at a flow rate of ≤ 3000 cfm. | 24 months on a STAGGERED TEST BASIS |

ACTIONS (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|-----------------|
| E. Required Action and associated Completion Time of Condition B not met during movement of irradiated fuel assemblies in the primary or secondary containment, during CORE ALTERATIONS, or during OPDRVs. | -----NOTE----- LCO 3.0.3 is not applicable. ----- | |
| | E.1 Suspend movement of irradiated fuel assemblies in the primary and secondary containment. | Immediately |
| | <u>AND</u> | |
| | E.2 Suspend CORE ALTERATIONS. | Immediately |
| | <u>AND</u> | |
| | E.3 Initiate action to suspend OPDRVs. | Immediately |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|-----------|
| SR 3.7.4.1 Verify each control room AC subsystem has the capability to remove the assumed heat load. | 24 months |

3.7 PLANT SYSTEMS

3.7.6 Main Turbine Bypass System

LCO 3.7.6 The Main Turbine Bypass System shall be OPERABLE.

APPLICABILITY: THERMAL POWER \geq 21.6% RTP.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|-----------------|
| A. Main Turbine Bypass System inoperable. | A.1 Restore Main Turbine Bypass System to OPERABLE status. | 2 hours |
| B. Required Action and associated Completion Time not met. | B.1 Reduce THERMAL POWER to < 21.6% RTP. | 4 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|-----------|
| SR 3.7.6.1 Verify one complete cycle of each main turbine bypass valve. | 31 days |
| SR 3.7.6.2 Perform a system functional test. | 24 months |
| SR 3.7.6.3 Verify the TURBINE BYPASS SYSTEM RESPONSE TIME is within limits. | 24 months |

| SURVEILLANCE REQUIREMENTS (continued) | | |
|---------------------------------------|---|-------------|
| SURVEILLANCE | | FREQUENCY |
| SR 3.8.1.7 | <p>-----NOTE----- All DG starts may be preceded by an engine prelube period. -----</p> <p>Verify each DG starts from standby condition and achieves:</p> <p>a. In ≤ 12 seconds, voltage ≥ 4084 V and frequency ≥ 58.8 Hz; and</p> <p>b. Steady state voltage ≥ 4084 V and ≤ 4580 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.</p> | 184 days |
| SR 3.8.1.8 | <p>-----NOTE----- This Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR. -----</p> <p>Verify automatic and manual transfer of unit power supply from the normal offsite circuit to the alternate offsite circuit.</p> | 24 months |
| | | (continued) |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|---|------------------|
| <p>SR 3.8.1.9 -----NOTE-----</p> <ol style="list-style-type: none"> 1. Credit may be taken for unplanned events that satisfy this SR. 2. If performed with DG synchronized with offsite power, it shall be performed at a power factor ≤ 0.9. <p>-----</p> <p>Verify each DG rejects a load greater than or equal to its associated single largest post accident load and following load rejection, the engine speed is maintained less than nominal plus 75% of the difference between nominal speed and the overspeed trip setpoint or 15% above nominal, whichever is lower.</p> | <p>24 months</p> |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|---|------------------|
| <p>SR 3.8.1.10 -----NOTE----- Credit may be taken for unplanned events that satisfy this SR. -----</p> <p>Verify each DG operating at a power factor ≤ 0.9 does not trip and voltage is maintained ≤ 5000 V for DG 1A and DG 1B and ≤ 5824 V for DG 1C during and following a load rejection of a load ≥ 3482 kW for DG 1A, ≥ 3488 kW for DG 1B, and ≥ 1980 kW for DG 1C.</p> | <p>24 months</p> |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|--|---------------------------------------|
| <p>SR 3.8.1.11 -----NOTES-----</p> <ol style="list-style-type: none"> 1. All DG starts may be preceded by an engine prelube period. 2. This Surveillance shall not be performed in MODE 1, 2, or 3. However, credit may be taken for unplanned events that satisfy this SR. <p>-----</p> <p>Verify on an actual or simulated loss of offsite power signal:</p> <ol style="list-style-type: none"> a. De-energization of emergency buses; b. Load shedding from emergency buses for Divisions 1 and 2; and c. DG auto-starts from standby condition and: <ol style="list-style-type: none"> 1. energizes permanently connected loads in ≤ 12 seconds, 2. energizes auto-connected shutdown loads, 3. maintains steady state voltage ≥ 4084 V and ≤ 4580 V, 4. maintains steady state frequency ≥ 58.8 Hz and ≤ 61.2 Hz, and 5. supplies permanently connected and auto-connected shutdown loads for ≥ 5 minutes. | <p>24 months </p> <p>(continued)</p> |

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|---|------------------|
| <p>SR 3.8.1.12 -----NOTES-----</p> <ol style="list-style-type: none"> 1. All DG starts may be preceded by an engine prelube period. 2. This Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR. <p>-----</p> <p>Verify on an actual or simulated Emergency Core Cooling System (ECCS) initiation signal each DG auto-starts from standby condition and:</p> <ol style="list-style-type: none"> a. In ≤ 12 seconds after auto-start and during tests, achieves voltage ≥ 4084 V and frequency ≥ 58.8 Hz; b. Achieves steady state voltage ≥ 4084 V and ≤ 4580 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz; and c. Operates for ≥ 5 minutes. | <p>24 months</p> |
| <p>SR 3.8.1.13 -----NOTE-----</p> <p>Credit may be taken for unplanned events that satisfy this SR.</p> <p>-----</p> <p>Verify each DG's automatic trips are bypassed on an actual or simulated ECCS initiation signal except:</p> <ol style="list-style-type: none"> a. Engine overspeed; b. Generator differential current; and c. Overcrank for DG 1A and DG 1B. | <p>24 months</p> |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|--|------------------|
| <p>SR 3.8.1.14 -----NOTES-----</p> <ol style="list-style-type: none"> 1. Momentary transients outside the load and power factor ranges do not invalidate this test. 2. Credit may be taken for unplanned events that satisfy this SR. <p>-----</p> <p>Verify each DG operating at a power factor ≤ 0.9 operates for ≥ 24 hours:</p> <ol style="list-style-type: none"> a. For ≥ 2 hours loaded ≥ 4062 kW for DG 1A, ≥ 4069 kW for DG 1B, and ≥ 2310 kW for DG 1C; and b. For the remaining hours of the test loaded ≥ 3482 kW for DG 1A, ≥ 3488 kW for DG 1B, and ≥ 1980 kW for DG 1C. | <p>24 months</p> |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|---|------------------|
| <p>SR 3.8.1.15 -----NOTE-----</p> <p>1. This Surveillance shall be performed within 5 minutes of shutting down the DG after the DG has operated ≥ 2 hours loaded ≥ 3482 kW for DG 1A, ≥ 3488 kW for DG 1B, and ≥ 1980 kW for DG 1C.</p> <p>Momentary transients outside of the load range do not invalidate this test.</p> <p>2. All DG starts may be preceded by an engine prelube period.</p> <p>-----</p> <p>Verify each DG starts and achieves:</p> <p>a. In ≤ 12 seconds, voltage ≥ 4084 V and frequency ≥ 58.8 Hz and</p> <p>b. Steady state voltage ≥ 4084 V and ≤ 4580 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.</p> | <p>24 months</p> |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|--|------------------|
| <p>SR 3.8.1.16 -----NOTE----- This Surveillance shall not be performed in MODE 1, 2, or 3. However, credit may be taken for unplanned events that satisfy this SR. -----</p> <p>Verify each DG:</p> <ul style="list-style-type: none"> a. Synchronizes with offsite power source while loaded with emergency loads upon a simulated restoration of offsite power; b. Transfers loads to offsite power source; and c. Returns to ready-to-load operation. | <p>24 months</p> |
| <p>SR 3.8.1.17 -----NOTE----- Credit may be taken for unplanned events that satisfy this SR. -----</p> <p>Verify, with a DG operating in test mode and connected to its bus, an actual or simulated ECCS initiation signal overrides the test mode by:</p> <ul style="list-style-type: none"> a. Returning DG to ready-to-load operation; and b. Automatically energizing the emergency loads from offsite power. | <p>24 months</p> |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|--|------------------|
| <p>SR 3.8.1.18 -----NOTE----- This Surveillance shall not be performed in MODE 1, 2, or 3. However, credit may be taken for unplanned events that satisfy this SR. ----- Verify the sequence time is within $\pm 10\%$ of design for each load sequence timer.</p> | <p>24 months</p> |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| SURVEILLANCE | FREQUENCY |
|---|------------------|
| <p>SR 3.8.1.19 -----NOTES-----</p> <ol style="list-style-type: none"> 1. All DG starts may be preceded by an engine prelube period. 2. This Surveillance shall not be performed in MODE 1, 2, or 3. However, credit may be taken for unplanned events that satisfy this SR. <p>-----</p> <p>Verify, on an actual or simulated loss of offsite power signal in conjunction with an actual or simulated ECCS initiation signal:</p> <ol style="list-style-type: none"> a. De-energization of emergency buses; b. Load shedding from emergency buses for Divisions 1 and 2; and c. DG auto-starts from standby condition and: <ol style="list-style-type: none"> 1. energizes permanently connected loads in ≤ 12 seconds, 2. energizes auto-connected emergency loads, 3. achieves steady state voltage ≥ 4084 V and ≤ 4580 V, 4. achieves steady state frequency ≥ 58.8 Hz and ≤ 61.2 Hz, and 5. supplies permanently connected and auto-connected emergency loads for ≥ 5 minutes. | <p>24 months</p> |

(continued)

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|-----------|
| SR 3.8.4.1 Verify battery terminal voltage is greater than or equal to the minimum established float voltage. | 7 days |
| SR 3.8.4.2 Verify each Division 1 and 2 battery charger supplies ≥ 300 amps at greater than or equal to the minimum established float voltage for ≥ 4 hours and each Division 3 and 4 battery charger supplies ≥ 100 amps at greater than or equal to the minimum established float voltage for ≥ 4 hours. <u>OR</u> Verify each battery charger can recharge the battery to the fully charged state within 12 hours while supplying the largest combined demands of the various continuous steady state loads, after a battery discharge to the bounding design basis event discharge state. | 24 months |
| SR 3.8.4.3 -----NOTES----- 1. The modified performance discharge test in SR 3.8.6.6 may be performed in lieu of SR 3.8.4.3. 2. This Surveillance shall not be performed in MODE 1, 2, or 3. However, credit may be taken for unplanned events that satisfy this SR. ----- Verify battery capacity is adequate to supply, and maintain in OPERABLE status, the required emergency loads for the design duty cycle when subjected to a battery service test. | 24 months |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|--|-----------|
| SR 3.8.11.1 | For each required SVC Protection System, perform a local, visual check of the SVC system control and status panel to confirm satisfactory operation. | 24 hours |
| SR 3.8.11.2 | Perform a system functional test of each SVC protection subsystem, including breaker actuation. | 24 months |

5.5 Programs and Manuals (continued)

5.5.7 Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2, except that testing specified at a frequency of 18 months is required at a frequency of 24 months.

- a. Demonstrate for each of the ESF systems that an inplace test of the high efficiency particulate air (HEPA) filters shows a penetration and system bypass < 0.05% when tested in accordance with Regulatory Guide 1.52, Revision 2, and ANSI N510-1980 at the system flowrate specified below $\pm 10\%$:

| <u>ESF Ventilation System</u> | <u>Flowrate</u> |
|--|-----------------|
| SGTS | 4,000 cfm |
| Control Room Ventilation (CRV) Makeup Filter | 3,000 cfm |

- b. Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass less than specified below when tested in accordance with Regulatory Guide 1.52, Revision 2, and ANSI N510-1980 at the system flowrate specified below $\pm 10\%$:

| <u>ESF Ventilation System</u> | <u>Flowrate</u> | <u>Penetration and Bypass</u> |
|-------------------------------|-----------------|-------------------------------|
| SGTS | 4,000 cfm | 0.05% |
| CRV Makeup Filter | 3,000 cfm | 0.05% |
| CRV Recirculation Filter | 64,000 cfm | 2% |

- c. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30 °C and a relative humidity of 70%:

| <u>ESF Ventilation System</u> | <u>Penetration</u> |
|-------------------------------|--------------------|
| SGTS | 0.175% |
| CRV Makeup Filter | 0.175% |
| CRV Recirculation Filter | 6% |

(continued)