

TABLE OF CONTENTS

| | | |
|---------|--|-----------|
| 3.3 | INSTRUMENTATION (continued) | |
| 3.3.5.2 | Reactor Core Isolation Cooling (RCIC) System Instrumentation | 3.3.5.2-1 |
| 3.3.6.1 | Primary Containment Isolation Instrumentation | 3.3.6.1-1 |
| 3.3.6.2 | Secondary Containment Isolation Instrumentation | 3.3.6.2-1 |
| 3.3.7.1 | Control Room Emergency Filtration (CREF) System Instrumentation | 3.3.7.1-1 |
| 3.3.8.1 | Loss of Power (LOP) Instrumentation | 3.3.8.1-1 |
| 3.3.8.2 | Reactor Protection System (RPS) Electric Power Monitoring | 3.3.8.2-1 |
| 3.4 | REACTOR COOLANT SYSTEM (RCS) | |
| 3.4.1 | Recirculation Loops Operating | 3.4.1-1 |
| 3.4.2 | Jet Pumps | 3.4.2-1 |
| 3.4.3 | Safety/Relief Valves (SRVs) - \geq 25% RTP | 3.4.3-1 |
| 3.4.4 | Safety/Relief Valves (SRVs) - $<$ 25% RTP | 3.4.4-1 |
| 3.4.5 | RCS Operational LEAKAGE | 3.4.5-1 |
| 3.4.6 | RCS Pressure Isolation Valve (PIV) Leakage | 3.4.6-1 |
| 3.4.7 | RCS Leakage Detection Instrumentation | 3.4.7-1 |
| 3.4.8 | RCS Specific Activity | 3.4.8-1 |
| 3.4.9 | Residual Heat Removal (RHR) Shutdown Cooling System-Hot Shutdown | 3.4.9-1 |
| 3.4.10 | Residual Heat Removal (RHR) Shutdown Cooling System-Cold Shutdown | 3.4.10-1 |
| 3.4.11 | RCS Pressure and Temperature (P/T) Limits | 3.4.11-1 |
| 3.4.12 | Reactor Steam Dome Pressure | 3.4.12-1 |
| 3.5 | EMERGENCY CORE COOLING SYSTEMS (ECCS) AND REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM | |
| 3.5.1 | ECCS-Operating | 3.5.1-1 |
| 3.5.2 | ECCS-Shutdown | 3.5.2-1 |
| 3.5.3 | RCIC System | 3.5.3-1 |
| 3.6 | CONTAINMENT SYSTEMS | |
| 3.6.1.1 | Primary Containment | 3.6.1.1-1 |
| 3.6.1.2 | Primary Containment Air Lock | 3.6.1.2-1 |
| 3.6.1.3 | Primary Containment Isolation Valves (PCIVs) | 3.6.1.3-1 |
| 3.6.1.4 | Drywell Air Temperature | 3.6.1.4-1 |
| 3.6.1.5 | Residual Heat Removal (RHR) Drywell Spray | 3.6.1.5-1 |
| 3.6.1.6 | Reactor Building-to-Suppression Chamber Vacuum Breakers | 3.6.1.6-1 |
| 3.6.1.7 | Suppression Chamber-to-Drywell Vacuum Breakers | 3.6.1.7-1 |
| 3.6.2.1 | Suppression Pool Average Temperature | 3.6.2.1-1 |
| 3.6.2.2 | Suppression Pool Water Level | 3.6.2.2-1 |
| 3.6.2.3 | Residual Heat Removal (RHR) Suppression Pool Cooling | 3.6.2.3-1 |

(continued)

TABLE OF CONTENTS

| | | |
|---------|---|-----------|
| 3.6 | CONTAINMENT SYSTEMS (continued) | |
| 3.6.3.1 | Deleted | |
| 3.6.3.2 | Primary Containment Atmosphere Mixing System | 3.6.3.2-1 |
| 3.6.3.3 | Primary Containment Oxygen Concentration | 3.6.3.3-1 |
| 3.6.4.1 | Secondary Containment | 3.6.4.1-1 |
| 3.6.4.2 | Secondary Containment Isolation Valves (SCIVs) | 3.6.4.2-1 |
| 3.6.4.3 | Standby Gas Treatment (SGT) System | 3.6.4.3-1 |
| 3.7 | PLANT SYSTEMS | |
| 3.7.1 | Standby Service Water (SW) System and Ultimate Heat Sink (UHS) | 3.7.1-1 |
| 3.7.2 | High Pressure Core Spray (HPCS) Service Water (SW) System | 3.7.2-1 |
| 3.7.3 | Control Room Emergency Filtration (CREF) System | 3.7.3-1 |
| 3.7.4 | Control Room Air Conditioning (AC) System | 3.7.4-1 |
| 3.7.5 | Main Condenser Offgas | 3.7.5-1 |
| 3.7.6 | Main Turbine Bypass System | 3.7.6-1 |
| 3.7.7 | Spent Fuel Storage Pool Water Level | 3.7.7-1 |
| 3.8 | ELECTRICAL POWER SYSTEMS | |
| 3.8.1 | AC Sources—Operating | 3.8.1-1 |
| 3.8.2 | AC Sources—Shutdown | 3.8.2-1 |
| 3.8.3 | Diesel Fuel Oil, Lube Oil, and Starting Air | 3.8.3-1 |
| 3.8.4 | DC Sources—Operating | 3.8.4-1 |
| 3.8.5 | DC Sources—Shutdown | 3.8.5-1 |
| 3.8.6 | Battery Cell Parameters | 3.8.6-1 |
| 3.8.7 | Distribution Systems—Operating | 3.8.7-1 |
| 3.8.8 | Distribution Systems—Shutdown | 3.8.8-1 |
| 3.9 | REFUELING OPERATIONS | |
| 3.9.1 | Refueling Equipment Interlocks | 3.9.1-1 |
| 3.9.2 | Refuel Position One-Rod-Out Interlock | 3.9.2-1 |
| 3.9.3 | Control Rod Position | 3.9.3-1 |
| 3.9.4 | Control Rod Position Indication | 3.9.4-1 |
| 3.9.5 | Control Rod OPERABILITY—Refueling | 3.9.5-1 |
| 3.9.6 | Reactor Pressure Vessel (RPV) Water Level—Irradiated Fuel | 3.9.6-1 |
| 3.9.7 | Reactor Pressure Vessel (RPV) Water Level—New Fuel or Control Rods | 3.9.7-1 |
| 3.9.8 | Residual Heat Removal (RHR)—High Water Level | 3.9.8-1 |
| 3.9.9 | Residual Heat Removal (RHR)—Low Water Level | 3.9.9-1 |
| 3.9.10 | Decay Time | 3.9.10-1 |
| 3.10 | SPECIAL OPERATIONS | |
| 3.10.1 | Inservice Leak and Hydrostatic Testing Operation | 3.10.1-1 |
| 3.10.2 | Reactor Mode Switch Interlock Testing | 3.10.2-1 |
| 3.10.3 | Single Control Rod Withdrawal—Hot Shutdown | 3.10.3-1 |

(continued)

1.1 Definitions (continued)

| | |
|-------------------------------------|--|
| CHANNEL FUNCTIONAL TEST | A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY, including required alarm, interlock, display, and trip functions, and channel failure trips. The CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps so that the entire channel is tested. |
| CORE ALTERATION | <p>CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components within the reactor vessel with the vessel head removed and fuel in the vessel. The following exceptions are not considered to be CORE ALTERATIONS:</p> <ul style="list-style-type: none">a. Movement of source range monitors, local power range monitors, intermediate range monitors, traversing incore probes, or special movable detectors (including undervessel replacement); andb. Control rod movement, provided there are no fuel assemblies in the associated core cell. <p>Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.</p> |
| CORE OPERATING LIMITS REPORT (COLR) | The COLR is the unit specific document that provides cycle specific parameter limits for the current reload cycle. These cycle specific limits shall be determined for each reload cycle in accordance with Specification 5.6.3. Plant operation within these limits is addressed in individual Specifications. |
| DOSE EQUIVALENT I-131 | DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) that alone would produce the same Total Effective Dose Equivalent (TEDE) dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The dose conversion factors used for this calculation shall be those listed in Federal Guidance Report (FGR) 11, "Limiting Values of |

(continued)

1.1 Definitions (continued)

| | |
|---|---|
| DOSE EQUIVALENT I-131 (continued) | Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion," 1988. |
| EMERGENCY CORE COOLING SYSTEM (ECCS) RESPONSE TIME | The ECCS RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its ECCS initiation setpoint at the channel sensor until the ECCS equipment is capable of performing its safety function (i.e., the valves travel to their required positions, pump discharge pressures reach their required values, etc.). Times shall include diesel generator starting and sequence loading delays, where applicable. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured. |
| END OF CYCLE RECIRCULATION PUMP TRIP (EOC-RPT) SYSTEM RESPONSE TIME | The EOC-RPT SYSTEM RESPONSE TIME shall be that time interval from initial signal generation by the associated turbine throttle valve limit switch or from when the turbine governor valve hydraulic control oil pressure drops below the pressure switch setpoint to complete suppression of the electric arc between the fully open contacts of the recirculation pump circuit breaker. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured. |
| ISOLATION SYSTEM RESPONSE TIME | The ISOLATION SYSTEM RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its isolation initiation setpoint at the channel sensor until the isolation valves travel to their required positions. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured. |

(continued)

3.1 REACTIVITY CONTROL SYSTEMS

3.1.7 Standby Liquid Control (SLC) System

LCO 3.1.7 Two SLC subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|---|-----------------|
| A. One SLC subsystem inoperable. | A.1 Restore SLC subsystem to OPERABLE status. | 7 days |
| B. Two SLC subsystems inoperable. | B.1 Restore one SLC subsystem to OPERABLE status. | 8 hours |
| C. Required Action and associated Completion Time not met. | C.1 Be in MODE 3. | 12 hours |
| | <u>AND</u> C.2 Be in MODE 4. | 36 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|--|
| SR 3.1.7.1 Verify available volume of sodium pentaborate solution is \geq 4587 gallons. | 24 hours |
| SR 3.1.7.2 Verify temperature of sodium pentaborate solution is within the limits of Figure 3.1.7-1. | 24 hours |
| SR 3.1.7.3 Verify continuity of explosive charge. | 31 days |
| SR 3.1.7.4 Verify the concentration of boron in solution is within the limits of Figure 3.1.7-1. | 31 days <u>AND</u> Once within 24 hours after water or boron is added to solution <u>AND</u> Once within 24 hours after solution temperature is restored within the limits of Figure 3.1.7-1 |

(continued)

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|--------------|--|--|
| SR 3.1.7.5 | Verify each SLC subsystem manual and power operated valve in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position or can be aligned to the correct position. | 31 days |
| SR 3.1.7.6 | Verify each pump develops a flow rate ≥ 41.2 gpm at a discharge pressure ≥ 1220 psig. | In accordance with the Inservice Testing Program |
| SR 3.1.7.7 | Verify flow through one SLC subsystem from pump into reactor pressure vessel. | 24 months on a STAGGERED TEST BASIS |
| SR 3.1.7.8 | Verify all heat traced piping between storage tank and pump suction valve is unblocked. | 24 months <u>AND</u> Once within 24 hours after solution temperature is restored within the limits of Figure 3.1.7-1 |

Primary Containment Isolation Instrumentation
3.3.6.1

Table 3.3.6.1-1 (page 3 of 4)
Primary Containment Isolation Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER TRIP SYSTEM | CONDITIONS REFERENCED FROM REQUIRED ACTION C.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|---|--|--|--|--|--------------------|
| 4. RWCU System Isolation (continued) | | | | | |
| b. Differential Flow - Time Delay | 1,2,3 | 1 | F | SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 | ≤ 46.5 seconds |
| c. Blowdown Flow - High | 1,2,3 | 1 | F | SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 SR 3.3.6.1.7 | ≤ 271.7 gpm |
| d. Heat Exchanger Room Area Temperature - High | 1,2,3 | 1 | F | SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6 | ≤ 160°F |
| e. Heat Exchanger Room Area Ventilation Differential Temperature - High | 1,2,3 | 1 | F | SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6 | ≤ 70°F |
| f. Pump Room Area Temperature - High | 1,2,3 | 1 per room | F | SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6 | ≤ 180°F |
| g. Pump Room Area Ventilation Differential Temperature - High | 1,2,3 | 1 per room | F | SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6 | ≤ 100°F |
| h. RWCU/RCIC Line Routing Area Temperature - High | 1,2,3 | 1 | F | SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6 | ≤ 180°F |
| i. RWCU Line Routing Area Temperature - High | 1,2,3 | 1 per room | F | SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6 | |
| Room 409, 509 Areas | | | | | ≤ 175°F |
| Room 408, 511 Areas | | | | | ≤ 180°F |
| j. Reactor Vessel Water Level - Low Low, Level 2 | 1,2,3 | 2 | F | SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6 | ≥ -58 inches |
| k. SLC System Initiation | 1,2,3 | 2 ^(c) | I | SR 3.3.6.1.6 | NA |
| l. Manual Initiation | 1,2,3 | 2 | G | SR 3.3.6.1.6 | NA |

(continued)

(c) SLC System Initiation only inputs into one of the two trip systems.

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 AND 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 ^(c) | SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4 | ≥ -58 inches |
| 2. Drywell Pressure - High | 1,2,3 | 2 ^(c) | SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4 | ≤ 1.88 psig |
| 3. Reactor Building Vent Exhaust Plenum Radiation - High | 1,2,3, (a) | 2 | SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4 | ≤ 16.0 mR/hr |
| 4. Manual Initiation | 1,2,3, (a) | 4 | SR 3.3.6.2.4 | NA |

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

(b) Deleted

(c) Also required to initiate the associated LOCA Time Delay Relay Function pursuant to LCO 3.3.5.1.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|---|---|
| <p>C. As required by Required Action A.1 and referenced in Table 3.3.7.1-1.</p> | <p>C.1 Declare associated CREF subsystem inoperable.</p> | <p>1 hour from discovery of loss of CREF initiation capability in both trip systems</p> |
| | <p><u>AND</u></p> <p>C.2 Place channel in trip.</p> | |
| <p>D. Required Action and associated Completion Time of Condition B or C not met.</p> | <p>D.1 Place associated CREF subsystem in the pressurization mode of operation.</p> | <p>1 hour</p> |
| | <p><u>OR</u></p> <p>D.2 Declare associated CREF subsystem inoperable.</p> | <p>1 hour</p> |

SURVEILLANCE REQUIREMENTS

- NOTES-----
1. Refer to Table 3.3.7.1-1 to determine which SRs apply for each CREF 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 CREF 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. | 18 months |
| SR 3.3.7.1.4 Perform LOGIC SYSTEM FUNCTIONAL TEST. | 24 months |

Table 3.3.7.1-1 (page 1 of 1)
Control Room Emergency Filtration System Instrumentation

| FUNCTION | APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS | REQUIRED CHANNELS PER TRIP SYSTEM | CONDITIONS REFERENCED FROM REQUIRED ACTION A.1 | SURVEILLANCE REQUIREMENTS | ALLOWABLE VALUE |
|--|--|--|--|--|--------------------|
| 1. Reactor Vessel Water Level - Low Low, Level 2 | 1,2,3, (a) | 2 | B | SR 3.3.7.1.1 SR 3.3.7.1.2 SR 3.3.7.1.3 SR 3.3.7.1.4 | \geq -58 inches |
| 2. Drywell Pressure - High | 1,2,3 | 2 | C | SR 3.3.7.1.1 SR 3.3.7.1.2 SR 3.3.7.1.3 SR 3.3.7.1.4 | \leq 1.88 psig |
| 3. Reactor Building Vent Exhaust Plenum Radiation - High | 1,2,3, (a) | 2 | B | SR 3.3.7.1.1 SR 3.3.7.1.2 SR 3.3.7.1.3 SR 3.3.7.1.4 | \leq 16.0 mR/hr |

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

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|---|
| 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 |
| SR 3.6.1.3.8 Verify a representative sample of reactor instrument line EFCVs actuate to the isolation position on an actual or simulated instrument line break signal. | 24 months |
| SR 3.6.1.3.9 Remove and test the explosive squib from each shear isolation valve of the TIP System. | 24 months on a STAGGERED TEST BASIS |
| SR 3.6.1.3.10 Verify the combined leakage rate for all secondary containment bypass leakage paths is $\leq 0.04\%$ primary containment volume/day when pressurized to $\geq P_a$. | In accordance with the Primary Containment Leakage Rate Testing Program |

(continued)

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|---|
| SR 3.6.1.3.11 Verify leakage rate through each MSIV is ≤ 16.0 scfh when tested at ≥ 25.0 psig. | In accordance with the Primary Containment Leakage Rate Testing Program |
| SR 3.6.1.3.12 Verify combined leakage rate through hydrostatically tested lines that penetrate the primary containment is within limits. | In accordance with the Primary Containment Leakage Rate Testing Program |

3.6 CONTAINMENT SYSTEMS

3.6.4.1 Secondary Containment

LC0 3.6.4.1 The secondary containment shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|---|-----------------|
| A. Secondary containment inoperable in MODE 1, 2, or 3. | A.1 Restore secondary containment to OPERABLE status. | 4 hours |
| B. Required Action and associated Completion Time of Condition A not met. | B.1 Be in MODE 3. | 12 hours |
| | <u>AND</u> B.2 Be in MODE 4. | 36 hours |
| C. Secondary containment inoperable during OPDRVs. | C.1 Initiate action to suspend OPDRVs. | Immediately |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|-------------------------------------|
| SR 3.6.4.1.1 Verify secondary containment vacuum is ≥ 0.25 inch of vacuum water gauge. | 24 hours |
| SR 3.6.4.1.2 Verify all secondary containment equipment hatches are closed and sealed. | 31 days |
| SR 3.6.4.1.3 Verify each secondary containment access inner door or each secondary containment access outer door in each access opening is closed. | 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 in ≤ 120 seconds. | 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 ≤ 2240 cfm. | 24 months on a STAGGERED TEST BASIS |

3.6 CONTAINMENT SYSTEMS

3.6.4.2 Secondary Containment Isolation Valves (SCIVs)

LCO 3.6.4.2 Each SCIV shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

-----NOTES-----

1. Penetration flow paths may be unisolated intermittently under administrative controls.
 2. Separate Condition entry is allowed for each penetration flow path.
 3. Enter applicable Conditions and Required Actions for systems made inoperable by SCIVs.
-

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|---|-----------------------------------|
| <p>A. One or more penetration flow paths with one SCIV inoperable.</p> | <p>A.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.</p> <p><u>AND</u></p> | <p>8 hours</p> <p>(continued)</p> |

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|---|-----------------------------------|
| <p>A. (continued)</p> | <p>A.2 -----NOTE----- Isolation devices in high radiation areas may be verified by use of administrative means. ----- Verify the affected penetration flow path is isolated.</p> | <p>Once per 31 days</p> |
| <p>B. -----NOTE----- Only applicable to penetration flow paths with two isolation valves. ----- One or more penetration flow paths with two SCIVs inoperable.</p> | <p>B.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.</p> | <p>4 hours</p> |
| <p>C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.</p> | <p>C.1 Be in MODE 3. <u>AND</u> C.2 Be in MODE 4.</p> | <p>12 hours 36 hours</p> |
| <p>D. Required Action and associated Completion Time of Condition A or B not met during OPDRVs.</p> | <p>D.1 Initiate action to suspend OPDRVs.</p> | <p>Immediately</p> |

SURVEILLANCE REQUIREMENTS

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

3.6 CONTAINMENT SYSTEMS

3.6.4.3 Standby Gas Treatment (SGT) System

LCO 3.6.4.3 Two SGT subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|---|-----------------|
| A. One SGT subsystem inoperable. | A.1 Restore SGT subsystem to OPERABLE status. | 7 days |
| B. Required Action and associated Completion Time of Condition A not met in MODE 1, 2, or 3. | B.1 Be in MODE 3. | 12 hours |
| | <u>AND</u> B.2 Be in MODE 4. | 36 hours |
| C. Required Action and associated Completion Time of Condition A not met during OPDRVs. | C.1 Place OPERABLE SGT subsystem in operation. | Immediately |
| | <u>OR</u> C.2 Initiate action to suspend OPDRVs. | Immediately |

(continued)

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|-----------------|
| D. Two SGT subsystems inoperable in MODE 1, 2, or 3. | D.1 Enter LCO 3.0.3. | Immediately |
| E. Two SGT subsystems inoperable during OPDRVs. | E.1 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 recirculation valve can be opened and the fan started. | 24 months |

3.7 PLANT SYSTEMS

3.7.3 Control Room Emergency Filtration (CREF) System

LCO 3.7.3 Two CREF subsystems shall be OPERABLE.

-----NOTE-----
The control room boundary may be opened intermittently under administrative control.

APPLICABILITY: MODES 1, 2, and 3,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|---|-----------------|
| A. One CREF subsystem inoperable. | A.1 Restore CREF subsystem to OPERABLE status. | 7 days |
| B. Two CREF subsystems inoperable due to inoperable control room boundary in MODES 1, 2, and 3. | B.1 Restore control room boundary to OPERABLE status. | 24 hours |
| C. Required Action and Associated Completion Time of Condition A or B not met in MODE 1, 2, or 3. | C.1 Be in MODE 3. | 12 hours |
| | <u>AND</u> C.2 Be in MODE 4. | 36 hours |

(continued)

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|---|-----------------|
| D. Required Action and associated Completion Time of Condition A not met during OPDRVs. | D.1 Place OPERABLE CREF subsystem in pressurization mode. | Immediately |
| | <u>OR</u> D.2 Initiate action to suspend OPDRVs. | Immediately |
| E. Two CREF subsystems inoperable in MODE 1, 2, or 3 for reasons other than Condition B. | E.1 Enter LCO 3.0.3. | Immediately |
| F. Two CREF subsystems inoperable during OPDRVs. | F.1 Initiate action to suspend OPDRVs. | Immediately |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|-----------------------------|
| SR 3.7.3.1 Operate each CREF subsystem for ≥ 10 continuous hours with the heaters operating. | 31 days |
| SR 3.7.3.2 Perform required CREF filter testing in accordance with the Ventilation Filter Testing Program (VFTP). | In accordance with the VFTP |

(continued)

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|-------------------------------------|
| SR 3.7.3.3 Verify each CREF subsystem actuates on an actual or simulated initiation signal. | 24 months |
| SR 3.7.3.4 Verify each CREF subsystem can maintain a positive pressure of $\geq 1/8$ inches water gauge relative to the radwaste and turbine buildings during the pressurization mode of operation at an outside air flow rate of ≤ 1000 cfm. | 24 months on a STAGGERED TEST BASIS |

3.7 PLANT SYSTEMS

3.7.4 Control Room Air Conditioning (AC) System

LCO 3.7.4 Two control room AC subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|-----------------|
| A. One control room AC subsystem inoperable. | A.1 Restore control room AC subsystem to OPERABLE status. | 30 days |
| B. Required Action and Associated Completion Time of Condition A not met in MODE 1, 2, or 3. | B.1 Be in MODE 3. | 12 hours |
| | <u>AND</u> B.2 Be in MODE 4. | 36 hours |
| C. Required Action and associated Completion Time of Condition A not met during OPDRVs. | C.1 Place OPERABLE control room AC subsystem in operation. | Immediately |
| | <u>OR</u> C.2 Initiate action to suspend OPDRVs. | Immediately |

(continued)

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|-----------------|
| D. Two control room AC subsystems inoperable in MODE 1, 2, or 3. | D.1 Enter LCO 3.0.3. | Immediately |
| E. Two control room AC subsystems inoperable during OPDRVs. | E.1 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 |

3.8 ELECTRICAL POWER SYSTEMS

3.8.2 AC Sources - Shutdown

LCO 3.8.2 The following AC electrical power sources shall be OPERABLE:

- a. One qualified circuit between the offsite transmission network and the onsite Class 1 E AC electrical power distribution subsystem(s) required by LCO 3.8.8, "Distribution Systems - Shutdown;"
- b. One diesel generator (DG) capable of supplying one division of the Division 1 or 2 onsite Class 1E AC electrical power distribution subsystem(s) required by LCO 3.8.8; and
- c. The Division 3 DG capable of supplying the Division 3 onsite Class 1E AC electrical power distribution subsystem, when the Division 3 onsite Class 1E electrical power distribution subsystem is required by LCO 3.8.8.

APPLICABILITY: MODES 4 and 5.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|--|--|
| <p>A. Required offsite circuit inoperable.</p> | <p>-----NOTE----- Enter applicable Condition and Required Actions of LCO 3.8.8, when any required division is de-energized as a result of Condition A. -----</p> <p>A.1 Declare affected required feature(s) with no offsite power available inoperable.</p> <p><u>OR</u></p> <p>A.2.1 Initiate action to suspend operations with a potential for draining the reactor vessel (OPDRVs).</p> <p><u>AND</u></p> <p>A.2.2 Initiate action to restore required offsite power circuit to OPERABLE status.</p> | <p>Immediately</p> <p>Immediately</p> <p>Immediately</p> |
| <p>B. Division 1 or 2 required DG inoperable.</p> | <p>B.1 Initiate action to suspend OPDRVs.</p> <p><u>AND</u></p> <p>B.2 Initiate action to restore required DG to OPERABLE status.</p> | <p>Immediately</p> <p>Immediately</p> <p>(continued)</p> |

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---------------------------------------|---|-----------------|
| C. Required Division 3 DG inoperable. | C.1 Declare High Pressure Core Spray System inoperable. | 72 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|--|
| <p>SR 3.8.2.1 -----NOTE----- The following SRs are not required to be performed: SR 3.8.1.3, SR 3.8.1.9 through SR 2.8.1.11, SR 3.8.1.13 through SR 3.8.1.16, SR 3.8.1.18, and SR 3.8.1.19. -----</p> <p>For AC sources required to be OPERABLE, the SRs for Specification 3.8.1 except SR 3.8.1.8, SR 3.8.1.17, and SR 3.8.1.20, are applicable</p> | <p>In accordance with applicable SRs</p> |

3.8 ELECTRICAL POWER SYSTEMS

3.8.5 DC Sources – Shutdown

LCO 3.8.5 DC electrical power subsystem(s) shall be OPERABLE to support the electrical power distribution subsystem(s) required by LCO 3.8.8, "Distribution Systems – Shutdown."

APPLICABILITY: MODES 4 and 5.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|--|--------------------|
| <p>A. One or more required DC electrical power subsystems inoperable.</p> | <p>A.1 Declare affected required feature(s) inoperable.</p> | <p>Immediately</p> |
| | <p><u>OR</u></p> | |
| | <p>A.2.1 Initiate action to suspend operations with a potential for draining the reactor vessel.</p> | <p>Immediately</p> |
| | <p><u>AND</u></p> | |
| | <p>A.2.2 Initiate action to restore required DC electrical power subsystems to OPERABLE status.</p> | <p>Immediately</p> |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|--|
| <p>SR 3.8.5.1 -----NOTE----- The following SRs are not required to be performed: SR 3.8.4.6, SR 3.8.4.7, and SR 3.8.4.8. -----</p> <p>For DC electrical power subsystems required to be OPERABLE the following SRs are applicable:</p> <p>SR 3.8.4.1, SR 3.8.4.2, SR 3.8.4.3, SR 3.8.4.4, SR 3.8.4.5, SR 3.8.4.6, SR 3.8.4.7, and SR 3.8.4.8.</p> | <p>In accordance with applicable SRs</p> |

3.8 ELECTRICAL POWER SYSTEMS

3.8.8 Distribution Systems – Shutdown

LC0 3.8.8 The necessary portions of the Division 1, Division 2, and Division 3 AC and DC electrical power distribution subsystems shall be OPERABLE to support equipment required to be OPERABLE.

APPLICABILITY: MODES 4 and 5.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|--------------------|
| <p>A. One or more required AC or DC electrical power distribution subsystems inoperable.</p> | <p>A.1 Declare associated supported required feature(s) inoperable.</p> | <p>Immediately</p> |
| | <p><u>OR</u></p> | |
| | <p>A.2.1 Initiate action to suspend operations with a potential for draining the reactor vessel.</p> | <p>Immediately</p> |
| | <p><u>AND</u></p> | |
| | <p>A.2.2 Initiate actions to restore required AC and DC electrical power distribution subsystems to OPERABLE status.</p> | <p>Immediately</p> |
| | <p><u>AND</u></p> | |
| | | <p>(continued)</p> |

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|----------------|--|-----------------|
| A. (continued) | A.2.3 Declare associated required shutdown cooling subsystem(s) inoperable and not in operation. | Immediately |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|-----------|
| SR 3.8.8.1 Verify correct breaker alignments and indicated power availability to required AC and DC electrical power distribution subsystems. | 7 days |

3.9 REFUELING OPERATIONS

3.9.7 Reactor Pressure Vessel (RPV) Water Level – New Fuel or Control Rods

LC0 3.9.7 RPV water level shall be \geq 23 ft above the top of irradiated fuel assemblies seated within the RPV.

APPLICABILITY: During movement of new fuel assemblies or handling of control rods within the RPV when irradiated fuel assemblies are seated within the RPV.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--------------------------------------|---|-----------------|
| A. RPV water level not within limit. | A.1 Suspend movement of new fuel assemblies and handling of control rods within the RPV. | Immediately |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|---|-----------|
| SR 3.9.7.1 Verify RPV water level is \geq 23 ft above the top of irradiated fuel assemblies seated within the RPV. | 24 hours |

3.9 REFUELING OPERATIONS

3.9.10 Decay Time

LCO 3.9.10 The reactor shall be subcritical for at least 24 hours.

APPLICABILITY: During in-vessel fuel movement.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|--------------------------------------|-----------------|
| A. With the reactor subcritical for less than 24 hours. | A.1 Suspend in-vessel fuel movement. | Immediately |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | FREQUENCY |
|--|--|
| SR 3.9.10.1 Verify the reactor has been subcritical for at least 24 hours. | Once prior to the movement of irradiated fuel in the reactor vessel. |

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

| ESF Ventilation System | Flowrate (cfm) |
|------------------------|----------------|
| SGT System | 4320 to 5280 |
| CREF System | 900 to 1100 |

- b. Demonstrate for each of the ESF systems that an inplace test of the charcoal adsorber shows a penetration and system bypass < 0.05% when tested in accordance with Regulatory Guide 1.52, Revision 2, and ASME N510-1989 at the system flowrate specified below:

| ESF Ventilation System | Flowrate (cfm) |
|------------------------|----------------|
| SGT System | 4320 to 5280 |
| CREF System | 900 to 1100 |

- 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 (86°F) and the relative humidity specified below. Testing of the SGT System will also be conducted at a face velocity of 75 feet per minute.

| ESF Ventilation System | Penetration (%) | RH (%) |
|------------------------|-----------------|--------|
| SGT System | 0.5 | 70 |
| CREF System | 2.5 | 70 |

Allowed tolerances in the above testing parameters of temperature, relative humidity, and face velocity are as specified in ASTM D3803-1989.

- d. Demonstrate for each of the ESF systems that the pressure drop across the combined HEPA filters and the charcoal adsorbers is less than the value specified below when tested at the system flowrate specified below:

| ESF Ventilation System | Delta P (inches wg) | Flowrate (cfm) |
|------------------------|---------------------|----------------|
| SGT System | < 8 | 4320 to 5280 |
| CREF System | < 6 | 900 to 1100 |

(continued)