

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 7 - (Not Used)

ACTION 8 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

ACTION 9 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.

ACTION 9A - a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 24 hours restore the inoperable channel to OPERABLE status, or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.

b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore at least one inoperable channel to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours.

ACTION 10 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the Reactor Trip System breakers within the next hour.

ACTION 11 - (Not Used)

ACTION 12 - With one of the diverse trip features (undervoltage or shunt trip attachment) inoperable, restore it to OPERABLE status within 48 hours or declare the breaker inoperable and apply ACTION 9. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status.

TABLE 3.3-3

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. Safety Injection (Reactor Trip, Feedwater Isolation, Control Room Emergency Ventilation, Start Standby Diesel Generators, Reactor Containment Fan Coolers, and Essential Cooling Water).					
a. Manual Initiation	2	1	2	1, 2, 3, 4	19
b. Automatic Actuation Logic	2	1	2	1, 2, 3, 4	14
c. Actuation Relays	3	2	3	1, 2, 3, 4	14
d. Containment Pressure--High-1	3	2	2	1, 2, 3, 4	20A
e. Pressurizer Pressure--Low	4	2	3	1, 2, 3#	20
f. Compensated Steam Line Pressure--Low	3/steam line	2/steam line any steam line	2/steam line in each steam line	1, 2, 3#	20

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
6. Auxiliary Feedwater					
a. Manual Initiation	1/pump	1/pump	1/pump	1, 2, 3	26
b. Automatic Actuation Logic	2	1	2	1, 2, 3	22
c. Actuation Relays	3	2	3	1, 2, 3	22
d. Stm. Gen. Water Level -- Low-Low Start Motor- Driven Pumps and Turbine- Driven Pump	4 stm. gen.	2 stm. gen. in any stm. gen.	3/stm. gen. in each stm. gen.	1, 2, 3	20
e. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
f. Loss of Power (Motor Driven Pumps Only)	See Item 8. below for all Loss of Power initiating functions and requirements.				
7. Automatic Switchover to Containment Sump****					
a. Automatic Actuation Logic and Actuation Relays	3-1/train	1/train	1/train	1, 2, 3, 4	19A
b. RWST Level -- Low-Low	3-1/train	1/train	1/train	1, 2, 3, 4	19A
Coincident With: Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				

SOUTH TEXAS - UNITS 1 & 2

3/4 3-23

Unit 1 - Amendment No. 179
Unit 2 - Amendment No. 166

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
8. Loss of Power					
a. 4.16 kV ESF Bus Under-voltage-Loss of Voltage	4/bus	2/bus	3 /bus	1, 2, 3, 4	20A
b. 4.16 kV ESF Bus Under-voltage-Tolerable Degraded Voltage Coincident with SI	4/bus	2/bus	3/bus	1, 2, 3, 4	20A
c. 4. 16 kV ESF Bus Under-voltage - Sustained Degraded Voltage	4/bus	2/bus	3/bus	1, 2, 3, 4	20A
9. Engineered Safety Features					
a. Pressurizer Pressure, P-11	3	2	2	1, 2, 3	21
b. Low-Low T _{avg} , P-12	4	2	3	1, 2, 3	21
c. Reactor Trip, P-4	2	1	2	1, 2, 3	23

TABLE 3.3-3 (Continued)
TABLE NOTATIONS

***Function is actuated by either actuation train A or actuation train B. Actuation train C is not used for this function.

****Automatic switchover to containment sump is accomplished for each train using the corresponding RWST level transmitter.

Trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.

During CORE ALTERATIONS or movement of irradiated fuel within containment.

Trip function automatically blocked above P-11 and may be blocked below P-11 when Low Compensated Steamline Pressure Protection is not blocked.

ACTION STATEMENTS

ACTION 14 - NOTE: The provision to apply the CRMP does not apply for Item 3.a.2, Containment Isolation Phase A Automatic Actuation Logic; Item 3.a.3, Containment Isolation Phase A Actuation Relays; Item 3.c.1, Containment Isolation Phase B Automatic Actuation Logic; or Item 3.c.2, Containment Isolation Phase B Actuation Relays.

- a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 24 hours restore the inoperable channel to OPERABLE status, or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.
- b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore at least one inoperable channel to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION 15 - (Not Used)

ACTION 16 - With the Charging Header Pressure channel inoperable:

- a) Place the Charging Header Pressure channel in the tripped condition within one hour and
- b) Restore the Charging Header Pressure channel to operable status within 7 days or be in at least Hot Standby within the next 6 hours and in Cold Shutdown within the following 30 hours.

ACTION 17 - NOTE: The provision to apply the CRMP does not apply for Item 3.c.3, Containment Isolation Phase B on Containment Pressure Hi-3.

- a. With the number of OPERABLE channels one less than the Total Number of Channels, within 72 hours place the inoperable channel in the bypassed condition or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours. One additional channel may be bypassed for up to 12 hours for surveillance testing per Specification 4.3.2.1.
- b. With the number of OPERABLE channels more than one less than the Total Number of Channels, within 1 hour apply the requirements of the CRMP or be in at least HOT STANDBY in the next 6 hours and in HOT SHUTDOWN within the following 6 hours. This action is not required for the surveillance testing provision of Action 17a.

TABLE 3.3-3 (Continued)
ACTION STATEMENTS (Continued)

- ACTION 18 - a) With less than the Minimum Channels OPERABLE requirement for Automatic Actuation Logic or Actuation Relays, operation may continue provided the containment purge supply and exhaust valves are maintained closed.
- b) MODE 1, 2, 3, 4, or 5[#]:
1. With one less than the Minimum Channels OPERABLE requirement for RCB Purge Radioactivity-High, within 30 days restore the inoperable channel or maintain the containment purge supply and exhaust valves closed.

NOTE:

MODE 1, 2, 3, or 4: Supplementary containment purge supply and isolation valves may be open during the allowed outage time for up to 2 hours at a time for required purge operation provided the valves are under administrative control.

MODE 5[#]: Supplementary or Normal containment purge supply and isolation valves may be open during the allowed outage time for up to 6 hours at a time for required purge operation provided the valves are under administrative control.

2. With two less than the Minimum Channels OPERABLE requirement for RCB Purge Radioactivity-High, operation may continue provided the containment purge supply and exhaust valves are maintained closed.
- c) MODE 6[#]: With less than the Minimum Channels OPERABLE requirement for RCB Purge Radioactivity - High, apply the requirements of Technical Specification 3.9.9 for an inoperable Containment Ventilation Isolation System.

NOTE:

With one less than the Minimum Channels Operable requirement for RCB Purge Radioactivity-High, Supplementary or Normal containment purge supply and isolation valves may be open for up to 6 hours at a time for required purge operation provided the valves are under administrative control.

ACTION 19 - NOTE: The provision to apply the CRMP does not apply for Item 3.a.1, Containment Isolation Phase A Manual Isolation.

- a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 48 hours restore the inoperable channel to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within 1 hour restore at least one channel to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- ACTION 19A
- a. With one train with the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, within 48 hours restore the inoperable channel to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 - b. With more than one train with the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, within 1 hour restore the channels for at least two trains to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

TABLE 3.3-3 (Continued)
ACTION STATEMENTS (Continued)

- ACTION 20 -** With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. For Functional Units with installed bypass test capability, the inoperable channel may be placed in bypass, and must be placed in the tripped condition within 72 hours.

Note: A channel may be bypassed for up to 12 hours for surveillance testing per Specification 4.3.2.1, provided no more than one channel is in bypass at any time.
 - b. For Functional Units with no installed bypass test capability,
 1. The inoperable channel is placed in the tripped condition within 72 hours, and
 2. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 12 hours for surveillance testing of other channels per Specification 4.3.2.1.
- ACTION 20A -**
- a. With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

For Functional Units with installed bypass test capability, the inoperable channel may be placed in bypass, and within 72 hours place the channel in the tripped condition or apply the requirements of the CRMP.

Note: A channel may be bypassed for up to 12 hours for surveillance testing per Specification 4.3.2.1, provided no more than one channel is in bypass at any time.

For Functional Units with no installed bypass test capability,

 1. Within 72 hours place the inoperable channel in the tripped condition or apply the requirements of the CRMP, and
 2. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 12 hours for surveillance testing of other channels per Specification 4.3.2.1.
 - b. With the number of OPERABLE channels more than one less than the Total Number of Channels, within 1 hour restore at least two channels to OPERABLE status for functions with three channels and restore at least 3 channels to OPERABLE status for functions that have four channels, or apply the requirements of the CRMP; or be in at least HOT STANDBY within the next 6 hours and be in at least HOT SHUTDOWN within the following 6 hours, and be in COLD SHUTDOWN within the following 24 hours. This action is not required for the surveillance testing provision in the note to Action 20A.a.
- ACTION 21 -** With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive annunciator window(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.
- ACTION 22 -**
- a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 24 hours restore the inoperable channel to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.
 - b. With the number of OPERABLE channels more than one less than the Minimum Channels OPERABLE requirement, within one hour restore at least one channel to OPERABLE status for functions with two channels or restore at least two channels to OPERABLE status for functions with three channels, or apply the requirements of the CRMP; or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

TABLE 3.3-3 (Continued)
ACTION STATEMENTS (Continued)

- ACTION 23 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.
- ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the ACTION required by Specification 3.7.1.5.
- ACTION 25 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 24 hours, or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.
- ACTION 26 - With the number of channels OPERABLE less than the Minimum Channels OPERABLE requirement, declare the affected Auxiliary Feed Water Pump inoperable and take ACTION required by Specification 3.7.1.2.
- ACTION 27 - For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.7.
- ACTION 28 - a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, within 7 days initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.
- b. With the number of OPERABLE channels two less than the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode, or immediately suspend CORE ALTERATIONS, movement of irradiated fuel assemblies and crane operations with loads over the spent fuel pool, AND within 12 hours initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode. CORE ALTERATIONS, movement of irradiated fuel assemblies, and crane operations with loads over the spent fuel pool are permitted during operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.
- c. With required ACTION 28a. or 28b. not met in MODE 1, 2, 3, or 4, immediately suspend movement of irradiated fuel assemblies and crane operations with loads over the spent fuel pool, AND be in MODE 3 in 6 hours and in MODE 5 in the following 30 hours.
- d. With required ACTION 28a. or 28b. not met in MODE 5 or 6, immediately suspend CORE ALTERATIONS, movement of irradiated fuel assemblies, and crane operations with loads over the spent fuel pool.
- ACTION 29 - For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.8.
- ACTION 30 - With irradiated fuel in the spent fuel pool: With the number of OPERABLE channels less than the minimum Channels OPERABLE requirement, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the FHB exhaust air filtration system is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

TABLE 3.3-14 (Continued)

TABLE NOTATIONS

- * When steam generators are being used for decay heat removal.
- # Atmospheric steam relief valve(s) may be in manual operation and open, or in automatic operation, to maintain secondary side pressure at or below an indicated steam generator pressure of 1225 psig.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels less than the required number of channels, declare the affected valve(s) inoperable and apply Technical Specification 3.7.1.6.

- ACTION 2 -**
- a. With one less than the required number of OPERABLE channels, within 7 days restore the inoperable channel to OPERABLE status or apply the requirements of the CRMP; or be in at least HOT STANDBY within the next 6 hours.
 - b. With two less than the required number of OPERABLE channels, within 72 hours restore at least three channels to OPERABLE status or apply the requirements of the CRMP; or be in at least HOT STANDBY within the next 6 hours.
 - c. With more than two less than the required number of OPERABLE channels, within 1 hour restore at least two channels to OPERABLE status or apply the requirements of the CRMP; or be in at least HOT STANDBY within the next 6 hours.

REACTOR COOLANT SYSTEM

3/4.4.4 RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.4.4 Both power-operated relief valves (PORVs) and their associated block valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With one or both PORV(s) inoperable, because of excessive seat leakage, within 1 hour either restore the PORV(s) to OPERABLE status or close the associated block valve(s) with power maintained to the block valve(s); or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With one PORV inoperable due to causes other than excessive seat leakage, within 1 hour either restore the PORV to OPERABLE status or close the associated block valve and remove power from the block valve; within the following 72 hours restore the PORV to OPERABLE status or apply the requirements of the CRMP, or be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- c. With both PORVs inoperable due to causes other than excessive seat leakage, within 1 hour apply the requirements of the CRMP, or restore at least one of the PORVs to OPERABLE status or close their associated block valves and remove power from the block valves and be in HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.
- d. With one block valve inoperable, within 1 hour restore the block valve to OPERABLE status or place its associated PORV in closed position; within 72 hours restore the block valve to OPERABLE status or apply the requirements of the CRMP; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- e. With both block valves inoperable, within 1 hour restore the block valves to OPERABLE status or place the associated PORVs in the closed position; restore at least one block valve to OPERABLE status within the next hour or apply the requirements of the CRMP; otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

3/4.5 EMERGENCY CORE COOLING SYSTEMS

3/4.5.1 ACCUMULATORS

LIMITING CONDITION FOR OPERATION

3.5.1 Each Safety Injection System accumulator shall be OPERABLE

APPLICABILITY: MODES 1 and 2
MODE 3 with pressurizer pressure > 1000 psig

ACTION:

- a. With one accumulator inoperable, except as a result of boron concentration outside the required limits, within 24 hours restore the inoperable accumulator to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.
- b. With more than one accumulator inoperable, except as a result of boron concentration outside the required limits, within 1 hour restore at least two accumulators to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.
- c. With the boron concentration of one accumulator outside the required limit, within 72 hours restore the boron concentration to within the required limits or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.
- d. With the boron concentrations of more than one accumulator outside the required limit, within 1 hour restore the boron concentration of at least two accumulators to within the required limits or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.5.1.1 Each accumulator shall be demonstrated OPERABLE:

- a. At least once per 24 hours by:
 - 1) Verifying the contained borated water volume is ≥ 8800 gallons and ≤ 9100 gallons and nitrogen cover-pressure is ≥ 590 psig and ≤ 670 psig, and
 - 2) Verifying that each accumulator isolation valve is open.
- b. At least once per 31 days and within 6 hours* after each solution volume increase of greater than or equal to 1% of tank volume that is not the result of addition from the RWST by verifying the boron concentration of the accumulator solution is ≥ 2700 ppm and ≤ 3000 ppm and
- c. At least once per 31 days when the RCS pressure is above 1000 psig by verifying that power to the isolation valve operator is removed.

* The 6 hr. SR is only required to be performed for affected accumulators

EMERGENCY CORE COOLING SYSTEMS

3/4.5.2 ECCS SUBSYSTEMS - T_{AVG} GREATER THAN OR EQUAL TO 350°F

LIMITING CONDITION FOR OPERATION

3.5.2 Three independent Emergency Core Cooling System (ECCS) subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE High Head Safety Injection pump,
- b. One OPERABLE Low Head Safety Injection pump,
- c. One OPERABLE RHR heat exchanger, and
- d. An OPERABLE flow path capable of taking suction from the refueling water storage tank on a Safety Injection signal and automatically transferring suction to the containment sump during the recirculation phase of operation through a High Head Safety Injection pump and into the Reactor Coolant System and through a Low Head Safety Injection pump and its respective RHR heat exchanger into the Reactor Coolant System.

APPLICABILITY: MODES 1, 2, and 3.*

ACTION:

- a. With less than the above subsystems OPERABLE, but with at least two High Head Safety Injection pumps in an OPERABLE status, two Low Head Safety Injection pumps and associated RHR heat exchangers in an OPERABLE status, and sufficient flow paths to accommodate these OPERABLE Safety Injection pumps and RHR heat exchangers,** within 7 days restore the inoperable subsystem(s) to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With less than two of the required subsystems OPERABLE, within 1 hour restore at least two subsystems to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- c. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be submitted within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected Safety Injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.

* Entry into MODE 3 is permitted for the Safety Injection pumps declared inoperable pursuant to Specification 4.5.3.1.2 provided that the Safety Injection pumps are restored to OPERABLE status within 4 hours or prior to the temperature of one or more of the RCS cold legs exceeding 375°F, whichever comes first.

** Verify required pumps, heat exchangers and flow paths OPERABLE every 48 hours.

EMERGENCY CORE COOLING SYSTEMS

3/4.5.5 REFUELING WATER STORAGE TANK

LIMITING CONDITION FOR OPERATION

- 3.5.5 The refueling water storage tank (RWST) shall be OPERABLE with:
- a. A minimum contained borated water volume of 458,000 gallons, and
 - b. A boron concentration between 2800 ppm and 3000 ppm.

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

ACTION:

With the RWST inoperable, within 1 hour restore the tank to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

- 4.5.5 The RWST shall be demonstrated OPERABLE at least once per 7 days by:
- a. Verifying the contained borated water volume in the tank, and
 - b. Verifying the boron concentration of the water.

EMERGENCY CORE COOLING SYSTEMS

3/4.5.6 RESIDUAL HEAT REMOVAL (RHR) SYSTEM

LIMITING CONDITION FOR OPERATION

3.5.6 Three independent Residual Heat Removal (RHR) loops shall be OPERABLE with each loop comprised of:

- a. One OPERABLE RHR pump,
- b. One OPERABLE RHR heat exchanger, and
- c. One OPERABLE flowpath capable of taking suction from its associated RCS hot leg and discharging to its associated RCS cold leg.*

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With one RHR loop inoperable, within 7 days restore the required loop to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With two RHR loops inoperable, within 24 hours restore at least two RHR loops to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.
- c. With three RHR loops inoperable, immediately initiate corrective action to restore at least one RHR loop to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.5.6.1 Each RHR loop shall be demonstrated OPERABLE on a STAGGERED TEST BASIS pursuant to the requirements of Specification 4.0.5.

4.5.6.2 At least once per 18 months by verifying automatic interlock action of the RHR system from the Reactor Coolant System to ensure that:

- a. With a simulated or actual Reactor Coolant System pressure signal greater than or equal to 350 psig, the interlocks prevent the valves from being opened.

*Valves MOV-0060 A, B, and C and MOV-0061 A, B, and C may have power removed to support the FHAR (Fire Hazard Analysis Report) assumptions.

CONTAINMENT SYSTEMS

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Three independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and transferring suction to the containment sump.

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

ACTION:

- a. With one Containment Spray System inoperable, within 7 days restore the inoperable Spray System to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.
- b. With more than one Containment Spray System inoperable, within 1 hour restore at least two Spray Systems to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;
- b. By verifying on a STAGGERED TEST BASIS, that on recirculation flow, each pump develops a differential pressure of greater than or equal to 283 psid when tested pursuant to Specification 4.0.5;
- c. At least once per 18 months during shutdown, by:
 - 1) Verifying that each automatic valve in the flow path actuates to its correct position on a Containment Pressure High 3 test signal, and
 - 2) Verifying that each spray pump starts automatically on a Containment Pressure High 3 test signal coincident with a sequencer start signal.
- d. By verifying each spray nozzle is unobstructed following maintenance activities that could result in spray nozzle blockage.

CONTAINMENT SYSTEMS

CONTAINMENT COOLING SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.3 Three independent groups of Reactor Containment Fan Coolers (RCFC) shall be OPERABLE with a minimum of two units in two groups and one unit in the third group.

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

ACTION:

- a. With one group of the above required Reactor Containment Fan Coolers inoperable, within 7 days restore the inoperable group of RCFC to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With more than one group of the above required Reactor Containment Fan Coolers inoperable, within 1 hour restore at least two groups of RCFC to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.3 Each group of Reactor Containment Fan Coolers shall be demonstrated OPERABLE:

- a. At least once per 92 days by:
 - 1) Starting each non-operating fan group from the control room, and verifying that each fan group operates for at least 15 minutes, and
 - 2) Verifying a component cooling water flow rate of greater than or equal to 1800 gpm to each cooler.
- b. At least once per 18 months by verifying that each fan group starts automatically on a Safety Injection test signal.

CONTAINMENT SYSTEMS

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves shall be OPERABLE with isolation times less than or equal to the required isolation times.

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

ACTION:

With one or more of the isolation valve(s) inoperable, maintain at least one isolation barrier* OPERABLE in each affected penetration that is open and within 24 hours:

- a. Restore the inoperable valve(s) to OPERABLE status, or
- b. Isolate each affected penetration by use of at least one deactivated automatic valve secured in the isolation position, or check valve with flow through the valve secured**, or
- c. Isolate each affected penetration by use of at least one closed manual valve or blind flange, or
- d. Apply the requirements of the CRMP.

Otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.3.1 The isolation valves shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.

4.6.3.2 Each isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

- a. Verifying that on a Phase "A" Isolation test signal, each Phase "A" isolation valve actuates to its isolation position;
- b. Verifying that on a Containment Ventilation Isolation test signal, each purge and exhaust valve actuates to its isolation position; and
- c. Verifying that on a Phase "B" Isolation test signal, each Phase "B" isolation valve actuates to its isolation position.
- d. Verifying that on a Phase "A" Isolation test signal, coincident with a low charging header pressure signal, that each seal injection valve actuates to its isolation position.

4.6.3.3 The isolation time of each power-operated or automatic valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

*An isolation barrier may either be a closed system (i.e., General Design Criteria 57 penetrations) or an isolation valve.

**A check valve may not be used to isolate an affected penetration flow path in which more than one isolation valve is inoperable or in which the isolation barrier is a closed system with a single isolation valve (i.e., General Design Criteria 57 penetration)

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 Four independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

- a. Three motor-driven auxiliary feedwater pumps, each capable of being powered from separate emergency busses, and
- b. One steam turbine-driven auxiliary feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With one motor-driven auxiliary feedwater pump inoperable, within 28 days restore the pump to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With the turbine-driven auxiliary feedwater pump inoperable, or with any two auxiliary feedwater pumps inoperable, within 72 hours restore the affected auxiliary feedwater pump(s) to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. MODE 3 may be entered with an inoperable turbine-driven auxiliary feedwater pump for the purposes of performing Surveillance Requirement 4.7.1.2.1.a.2.
- c. With three auxiliary feedwater pumps inoperable, within 1 hour apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- d. With four auxiliary feedwater pumps inoperable, immediately initiate action to restore at least one auxiliary feedwater pump to OPERABLE status as soon as possible. LCO 3.0.3 and all other LCO actions requiring Mode changes are suspended until one of the four inoperable auxiliary feedwater pumps is restored to OPERABLE status.
- e. Specification 3.0.4.b is not applicable.

PLANT SYSTEMS

AUXILIARY FEEDWATER STORAGE TANK

LIMITING CONDITION FOR OPERATION

3.7.1.3 The auxiliary feedwater storage tank (AFST) shall be OPERABLE with a contained water volume of at least 485,000 gallons of water.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

With the AFST inoperable, within 4 hours restore the AFST to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.3 The AFST shall be demonstrated OPERABLE at least once per 12 hours by verifying the contained water volume is within its limits.

PLANT SYSTEMS

MAIN STEAM LINE ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.5 Each main steam line isolation valve (MSIV) shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

MODE 1:

- a. With one MSIV inoperable but open, POWER OPERATION may continue provided that within 4 hours the inoperable valve is restored to OPERABLE status or the requirements of the CRMP are met; otherwise be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With more than one MSIV inoperable but open, POWER OPERATION may continue provided that within 1 hour at least three inoperable valves are restored to OPERABLE status or the requirements of the CRMP are met; otherwise be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

MODES 2 and 3:

With one MSIV inoperable, subsequent operation in MODE 2 or 3 may proceed provided the isolation valve is maintained closed. Otherwise, be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.5 Each MSIV shall be demonstrated OPERABLE by verifying full closure within 5 seconds when tested pursuant to Specification 4.0.5. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

PLANT SYSTEMS

ATMOSPHERIC STEAM RELIEF VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.6 At least four atmospheric steam relief valves shall be OPERABLE.

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

ACTION:

- a. With one less than the required atmospheric steam relief valves OPERABLE, within 7 days restore the required atmospheric steam relief valves to OPERABLE status or apply the requirements of the CRMP; or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours and place the required RCS/RHR loops in operation for decay heat removal.
- b. With two less than the required atmospheric relief valves OPERABLE, within 72 hours restore at least three atmospheric relief valves to OPERABLE status or apply the requirements of the CRMP or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours and place the required RCS/RHR loops in operation for decay heat removal.
- c. With more than two less than the required atmospheric relief valves OPERABLE, within 1 hour restore at least two atmospheric relief valves to OPERABLE status or apply the requirements of the CRMP or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours and place the required RCS/RHR loops in operation for decay heat removal.

SURVEILLANCE REQUIREMENTS

4.7.1.6 Each atmospheric relief valve shall be demonstrated OPERABLE prior to startup following any COLD SHUTDOWN of 30 days or longer or following any refueling shutdown, by verifying that all valves will open and close fully by operation of automatic[#] and manual controls.

* When steam generators are being used for decay heat removal.

Required to be met for automatic controls only in MODES 1 and 2.

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3 At least three independent component cooling water loops shall be OPERABLE.

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

ACTION:

- a. With only two component cooling water loops OPERABLE, within 7 days restore at least three loops to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With two or more component cooling water loops inoperable, within 1 hour restore at least two loops to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.3 At least three component cooling water loops shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve outside containment (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position; and
- b. At least once per 18 months by verifying that:
 - 1) Each automatic valve servicing safety-related equipment or isolating the non-nuclear safety portion of the system actuates to its correct position on a Safety Injection, Loss of Offsite Power, Containment Phase "B" Isolation, or Low Surge Tank test signal, as applicable (performed during shutdown);
 - 2) Each Component Cooling Water System pump starts automatically on a Safety Injection or Loss of Offsite Power test signal (performed during shutdown); and
 - 3) The surge tank level instrumentation which provides automatic isolation of portions of the system is demonstrated OPERABLE by performance of a CHANNEL CALIBRATION test.
- c. By verifying that each valve inside containment (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position prior to entering MODE 4 following each COLD SHUTDOWN of greater than 72 hours if not performed within the previous 31 days.

PLANT SYSTEMS

3/4.7.4 ESSENTIAL COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4 At least three independent essential cooling water loops shall be OPERABLE.

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

ACTION:

- a. With only two essential cooling water loops OPERABLE, within 7 days restore at least three loops to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With two or more essential cooling water loops inoperable, within 1 hour restore at least two loops to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.4 At least three essential cooling water loops shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position;
- b. At least once per 18 months during shutdown, by verifying that:
 - 1) Each Essential Cooling Water automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal, and
 - 2) Each Essential Cooling Water pump starts automatically on an actual or simulated signal.

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM MAKEUP AND CLEANUP FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.7 Three independent Control Room Makeup and Cleanup Filtration Systems shall be OPERABLE.

APPLICABILITY: All MODES.

ACTION:

MODES 1, 2, 3, and 4:

- a. With one Control Room Makeup and Cleanup Filtration System inoperable, within 7 days restore the inoperable system to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With two Control Room Makeup and Cleanup Filtration Systems inoperable, within 72 hours restore at least two systems to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With three Control Room Makeup and Cleanup Filtration Systems inoperable, suspend all operations involving movement of spent fuel, and crane operation with loads over the spent fuel pool, and within 12 hours restore at least one system to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6:

- a. With one Control Room Makeup and Cleanup Filtration System inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain operation of the remaining OPERABLE Control Room Makeup and Cleanup Filtration Systems in the recirculation and makeup air filtration mode, or suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or required boron concentration, movement of spent fuel, and crane operation with loads over the spent fuel pool.
- b. With more than one Control Room Makeup and Cleanup Filtration System inoperable, or with the OPERABLE Control Room Makeup and Cleanup Filtration Systems required to be in the recirculation and makeup air filtration mode by ACTION a. not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or required boron concentration, movement of spent fuel, and crane operations with loads over the spent fuel pool.

SURVEILLANCE REQUIREMENTS

4.7.7 Each Control Room Makeup and Cleanup Filtration System shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 78°F;
- b. At least once per 92 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers of the makeup and cleanup air filter units and verifying that the system operates for at least 10 continuous hours with the makeup filter unit heaters operating;

PLANT SYSTEMS

3/4.7.14 ESSENTIAL CHILLED WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.14 At least three independent Essential Chilled Water System loops shall be OPERABLE.

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

ACTION:

- a. With only two Essential Chilled Water System loops OPERABLE, within 7 days restore at least three loops to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With two or more Essential Chilled Water System loops inoperable, within 1 hour restore at least two loops to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.14 The Essential Chilled Water System shall be demonstrated OPERABLE by:

- a. Performance of surveillances as required by Specification 4.0.5, and
- b. At least once per 18 months by demonstrating that the system starts automatically on a Safety Injection test signal.

SOUTH TEXAS - UNITS 1 & 2

3/4 7-33

Unit 1 – Amendment No. 85 179

Unit 2 – Amendment No. 72 166

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE.

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E Distribution System⁽¹⁾, and
- b. Three separate and independent standby diesel generators, each with a separate fuel tank containing a minimum volume of 60,500 gallons of fuel, and an automatic load sequencer.

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

ACTION:

- a. With one offsite circuit of the above-required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. Within 72 hours restore the offsite circuit to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With a standby diesel generator inoperable, demonstrate the OPERABILITY of the above-required A.C. offsite sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.2) for each such standby diesel generator separately within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generator(s). Within 14 days restore the inoperable standby diesel generator to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.⁽¹²⁾
- c. With one offsite circuit of the above-required A.C. electrical power sources and one standby diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; and if the standby diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION

ACTION (Continued)

maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE standby diesel generator(s) by performing Surveillance Requirement 4.8.1.1.2a.2) within 8 hours, unless it can be demonstrated there is no common mode failure for the remaining diesel generators; within 12 hours restore at least one of the inoperable sources to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. ⁽¹²⁾

- d. With one standby diesel generator inoperable in addition to ACTION b. or c. above, verify that:
1. All required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generators as a source of emergency power are also OPERABLE, and
 2. When in MODE 1, 2, or 3, the steam-driven auxiliary feedwater pump is OPERABLE.

If these conditions are not satisfied within 24 hours, apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- e. With two of the above required offsite A.C. circuits inoperable, within 24 hours restore at least one of the inoperable offsite sources to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours.
- f. With two or three of the above required standby diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter. With three of the above required standby diesel generators inoperable, within 2 hours restore at least one standby diesel generator to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. ⁽¹²⁾ With two of the above required standby diesel generators inoperable, within 24 hours restore at least two standby diesel generators to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ELECTRICAL POWER SYSTEMS

3/4.8.2 D.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.1 As a minimum, the following D.C. electrical sources shall be OPERABLE:

- a. Channel I 125-volt Battery Bank E1A11 (Unit 1), E2A11 (Unit 2) and one of its two associated chargers,
- b. Channel II 125-volt Battery Bank E1D11 (Unit 1), E2D11 (Unit 2) and one of its two associated full capacity chargers,
- c. Channel III 125-volt Battery Bank E1B11 (Unit 1), E2B11 (Unit 2) and one of its two associated full capacity chargers, and
- d. Channel IV 125-volt Battery Bank E1C11 (Unit 1), E2C11 (Unit 2) and one of its two associated chargers.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTION:

NOTE

If the batteries discharge for more than 2 hours as the sole source of power to their DC bus while the CRMP is being applied and no alternate source of power is available, the LCO shall be considered not met.

- a. With one of the required battery banks inoperable, within 2 hours restore the inoperable battery bank to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With more than one of the required battery banks inoperable, within 1 hour restore at least three battery banks to OPERABLE status or apply the requirements of the CRMP or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one channel with no battery chargers OPERABLE, within 2 hours restore at least one battery charger to OPERABLE status or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- d. With more than one channel with no battery chargers OPERABLE, within 1 hour restore at least one battery charger to OPERABLE status on at least three channels or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.2.1 Each 125-volt battery bank and charger shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying that:
 - 1) The parameters in Table 4.8-2 meet the Category A limits, and
 - 2) The total battery terminal voltage is greater than or equal to 129 volts on float charge.

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

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

ACTION:

- a. With one of the required trains of A.C. ESF busses not fully energized, within 8 hours reenergize the train or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With more than one of the required trains of A.C. ESF busses not fully energized, within 1 hour reenergize at least two trains or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one A.C. vital distribution panel either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 2 hours reenergize the A.C. distribution panel or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 24 hours reenergize the A.C. vital distribution panel from its associated inverter connected to its associated D.C. bus or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- d. With more than one A.C. vital distribution panel either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) within 1 hour reenergize at least five A.C. distribution panels or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) within 1 hour reenergize at least five A.C. vital distribution panels from their associated inverter connected to their associated D.C. bus or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- e. With one D.C. bus not energized from its associated battery bank, within 2 hours reenergize the D.C. bus from its associated battery bank or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- f. With more than one D.C. bus not energized from its associated battery bank, within 1 hour reenergize at least three D.C. buses from their associated battery banks or apply the requirements of the CRMP, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.8.3.1 The specified busses shall be determined energized in the required manner at least once per 7 days by verifying correct breaker alignment and indicated voltage on the busses.

6.0 ADMINISTRATIVE CONTROLS
6.8 Procedures, Programs, and Manuals

6.8.3.j (continued)

Peak calculated containment internal pressure for the design basis loss of coolant accident (LOCA), P_a is 41.2 psig.

The maximum allowable containment leakage rate, L_a , is 0.3 percent of containment air weight per day.

Leakage rate acceptance criteria are:

- 1) Containment overall leakage rate acceptance criterion is $\leq 1.0 L_a$. During the first unit start-up following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60 L_a$ for the combined Type B and Type C tests, and $\leq .75 L_a$ as-left and $\leq 1.0 L_a$ as-found for Type A tests.
- 2) Air lock testing acceptance criteria for the overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$.

The provisions of Surveillance Requirement 4.0.2 do not apply to the test frequencies specified in the Containment Leakage Rate Testing Program.

The provisions of Surveillance Requirement 4.0.3 apply to the Containment Leakage Rate Testing Program.

k. Configuration Risk Management Program (CRMP)

A program to calculate risk-informed completion time in accordance with NEI 06-09, "Risk-Managed Technical Specifications (RMTS) Guidelines, Rev. 0". The CRMP may be used for calculating a risk-informed completion time only in Mode 1 and Mode 2. In accordance with NEI 06-09, the completion time determined using the CRMP shall not be more than 30 days.

(continued)