MAY 29 2018

L-2018-049
10 CFR 50.90

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Florida Power & Light Company
St. Lucie Units 1 and 2, Docket Nos. 50-335, 50-389
Turkey Point Units 3 and 4, Docket Nos. 50-250, 50-251

NextEra Energy Seabrook, LLC
Seabrook Station, Docket No. 50-443

Subject: Application to Add Limiting Condition for Operation (LCO) 3.0.6 to the Technical Specifications

Florida Power & Light Company (FPL), acting on behalf of itself and as agent for NextEra Energy Seabrook, LLC (NextEra) is submitting a request for an amendment to the technical specifications (TS) for St. Lucie Units 1 and 2, Turkey Point Units 3 and 4, and Seabrook Station. The proposed amendments modify the TS to incorporate the provisions of Limiting Condition for Operation (LCO) 3.0.6 in the improved standard TS (ISTS), which provide the actions to be taken when the inoperability of a support system results in the inoperability of related supported systems. In addition, the proposed change adds a new Safety Function Determination Program to the administrative section of the TS to ensure that a loss of safety function is detected and appropriate actions are taken when using the provisions of LCO 3.0.6.

The enclosure to this letter provides FPL's and NextEra's evaluation of the proposed change. Attachment 1 to the enclosure provides the existing TS pages marked up to show the proposed changes, and Attachment 2 provides existing TS Bases pages marked up to show the proposed changes. Retyped TS pages incorporating the proposed changes will be provided when requested by the NRC project manager. The changes to the TS Bases are provided for information only and will be incorporated in accordance with the plant's TS Bases Control Program upon implementation of the approved amendment. Attachment 3 provides a table of support system required actions in the ISTS that direct entering the conditions and required actions of supported systems and shows how these required actions are addressed in the proposed change.

This letter contains no new or revised regulatory commitments.

FPL requests approval of the proposed amendments by April 1, 2019. Once approved, the amendments shall be implemented within 90 days.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated officials in Florida and New Hampshire.

A001
NRR

If you should have any questions regarding this submittal, please contact Steve Catron, Fleet Licensing Manager, at 561-304-6206.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on May 25, 2018

Sincerely,

for

Larry Nicholson
Director, Nuclear Licensing and Regulatory Compliance
Florida Power & Light Company

Enclosure

cc: NRC Project Manager - St. Lucie
NRC Project Manger – Turkey Point
NRC Project Manager – Seabrook
Regional Administrator - NRC Region 1
Regional Administrator - NRC Region 2
NRC Resident Inspector - St. Lucie
NRC Resident Inspector – Turkey Point
NRC Resident Inspector - Seabrook
Ms. Cindy Becker, Florida Department of Health
Director Homeland Security and Emergency Management (New Hampshire)
Mr. John Giarrusso, Jr., Nuclear Preparedness Manager (Massachusetts)

Enclosure

Evaluation of the Proposed Change

SUBJECT: Application to Add Limiting Condition for Operation (LCO) 3.0.6 to the Technical Specifications

1.0 SUMMARY DESCRIPTION

Florida Power & Light Company (FPL), acting on behalf of itself and as agent for NextEra Energy Seabrook, LLC (NextEra) is submitting a request for an amendment to the technical specifications (TS) for St. Lucie Units 1 and 2, Turkey Point Units 3 and 4, and Seabrook Station. The proposed amendments modify the TS to incorporate the provisions of Limiting Condition for Operation (LCO) 3.0.6 in the improved standard TS (ISTS), which provide the actions to be taken when the inoperability of a support system results in the inoperability of related supported systems. In addition, the proposed change adds a new Safety Function Determination Program to the administrative section of the TS to ensure that a loss of safety function is detected and appropriate actions are taken when using the provisions of LCO 3.0.6.

2.0 DETAILED DESCRIPTION

2.1 Current Technical Specifications Requirements

The Seabrook and Turkey Point TS, which are based on NUREG-0452, Standard Technical Specifications for Westinghouse Pressurized Water Reactors [Reference 1], do not include a provision similar to LCO 3.0.6 in NUREG-1431, Standard Technical Specifications Westinghouse Plants [Reference 2]. Similarly, the St. Lucie TS are based on NUREG-0212, Standard Technical Specifications for Combustion Engineering Pressurized Water Reactors [Reference 3], which does not include a provision similar to LCO 3.0.6 in NUREG-1432, Standard Technical Specifications Combustion Engineering Plants [Reference 4].

2.2 Reason for the Proposed Change

This change incorporates the provisions of LCO 3.0.6 in the ISTS, which addresses the issue of cascading when implementing the TS. The proposed change will eliminate the potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' Actions. The Actions necessary to ensure the plant is maintained in a safe condition are included in the support system's Actions, which may include directions to enter the Actions for the supported system when appropriate.

2.3 Description of the Proposed Change

2.3.1 St. Lucie Units 1 and 2

a. Revise Specification 3.0.2 to include LCO 3.0.6:

3.0.2 Upon discovery of a failure to meet an LCO, the ~~Required~~ ACTION(s) ~~of the associated conditions~~ shall be met, except as provided in LCO 3.0.5 ***and LCO 3.0.6***. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the ~~Required~~ ACTION(s) is not required, unless otherwise stated.

b. Add new LCO 3.0.6:

3.0.6 ***When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification [6.8.4.r (Unit 1)] [6.8.4.s (Unit 2)], "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.***

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into the ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

c. Add notes and Actions that direct entering the Actions for supported systems.

1. Add note to LCO 3.4.6.2, "Reactor Coolant System Leakage," Action c:

Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.

In addition, delete the following from St. Lucie Unit 1 TS 3.4.6.2, Action c:

~~(Note, however, that this may lead to ACTION requirements for systems involved.)~~

2. Add note to Actions in LCO 3.6.1.3, "Containment Air Locks":

Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate.

3. Add notes to Actions in LCO 3.6.3.1 (Unit 1) LCO 3.6.3 Unit 2, "Containment Isolation Valves":

1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves.

2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when leakage results in exceeding the overall containment leakage rate acceptance criteria.

4. Add note to Action in LCO 3.7.3.1 (Unit 1) LCO 3.7.3 (Unit 2), Component Cooling Water":

Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for shutdown cooling loops made inoperable by CCW.

5. Add note to Action in LCO 3.7.4.1 (Unit 1) LCO 3.7.4 (Unit 2), "Intake Cooling Water System":

   Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for shutdown cooling loops made inoperable by ICW.

6. Revise LCO 3.8.1.1, "A.C. Sources - Operating," Action a to include the following:

   Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.

7. Add note to LCO 3.8.1.1, "A.C. Sources – Operating," Action c:

   Enter applicable ACTIONS of [LCO 3.8.2.1 (Unit 1)***][LCO 3.8.3.1*** (Unit 2)***,] "A.C. Distribution – Operating," when ACTION c is entered with no AC power to any train.***

8. Revise LCO 3.8.1.1, "A.C. Sources - Operating," Action d to include the following:

   Within 12 hours from discovery of two offsite circuits inoperable with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.

9. Add note to Action in LCO 3.8.1.2, "Electrical power Systems – Shutdown":

   Enter the ACTION of LCO [3.8.2.2, "A.C. Distribution – Shutdown," (Unit 1)***] [LCO 3.8.3.2, "Onsite Power Distribution – Shutdown,"*** (Unit 2)***] with one required train de-energized as a result of inoperable offsite circuit.***

10. Add note to Action in LCO 3.8.2.1, "A.C. Power Distribution – Operating" (Unit 1) LCO 3.8.3.1, Onsite Power Distribution – Operating" (Unit 2):

    Enter applicable ACTIONS of [LCO 3.8.2.3, "D.C. Distribution – Operating," (Unit 1)***] [LCO 3.8.2.1, "D.C. Sources – Operating,"*** (Unit 2)***] for DC trains made inoperable by inoperable AC distribution system.***

d. Add new administrative [TS 6.8.4.r (Unit 1)][TS 6.8.4.s (Unit 2)], Safety Function Determination Program (SFDP).

2.3.2 Seabrook

a. Revise LCO 3.0.1 and 3.0.2:

3.0.1 ~~Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met, except as provided in Specification 3.0.5.~~ ***LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.***

3.0.2 ~~Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals, except as provided in Specification 3.0.5. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.~~ ***Upon discovery of a failure to meet an LCO, the ACTIONS shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6. If the LCO is met or is no longer applicable prior to expiration of the specified time interval, completion of the ACTION(S) is not required unless otherwise stated.***

b. Add new LCO 3.0.6:

3.0.6 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.7.6.o, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into the ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

c. Add notes and Actions that direct entering the Actions for supported systems:

1. Add note to LCO 3.4.6.2, "Reactor Coolant System Leakage," Action c:

Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.

2. Add note to Actions in LCO 3.6.1.3, "Containment Air Locks":

   Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate acceptance criteria.

3. Add notes to Actions in LCO 3.6.3, "Containment Isolation Valves":

   1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves.

   2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

4. Add note to Action in LCO 3.7.3, "Primary Component Cooling Water,":

   Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for residual heat removal loops made inoperable by PCCW.

5. Add notes to Actions in LCO 3.7.4, "Service Water System/Ultimate Heat Sink,":

   1. Enter applicable ACTIONS of LCO 3.8.1.1, "AC Sources - Operating," for diesel generator made inoperable by service water.

   2. Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for residual heat removal loops made inoperable by service water.

6. Revise LCO 3.8.1.1, 'AC Sources - Operating," Action a to include the following:

   Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.

7. Add note to LCO 3.8.1.1, 'AC Sources - Operating," Action c:

   Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution - Operating," when ACTION c is entered with no AC power to any train.

8. Revise LCO 3.8.1.1, 'AC Sources - Operating," Action e to include the following:

   Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.

9. Add note to Action in LCO 3.8.1.2, "A.C. Sources – Shutdown":

   Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution – Shutdown," with one required train de-energized as a result of inoperable offsite circuit.

10. Add note to LCO 3.8.3.1, "Onsite Power Distribution - Operating," Action a:

    Enter applicable ACTIONS of LCO 3.8.2.1, "DC Sources - Operating," for DC trains made inoperable by inoperable power distribution system.

d. Add new administrative TS 6.7.6.o, Safety Function Determination Program (SFDP).

2.3.3 Turkey Point

a. Revise LCO 3.0.1 and 3.0.2:

3.0.1 ~~Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met, except as provided in Specification 3.0.6.~~ ***LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.***

3.0.2 ~~Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals, except as provided in Specification 3.0.6. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.~~ ***Upon discovery of a failure to meet an LCO, the ACTIONS shall be met, except as provided in LCO 3.0.6 and LCO 3.0.7. If the LCO is met or is no longer applicable prior to expiration of the specified time interval, completion of the ACTION(S) is not required unless otherwise stated.***

b. Add new LCO 3.0.7:

3.0.7 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.8.4.n, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into the ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

c. Add notes and Actions that direct entering the Actions for supported systems:

1. Add note to LCO 3.4.6.2, "Reactor Coolant System Leakage," Action d:

   Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.

2. Add note to Actions in LCO 3.6.1.3, "Containment Air Locks":

   Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate.

3. Add notes to Actions in LCO 3.6.4, "Containment Isolation Valves":

   1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves.

   2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

   Delete the footnote:

   ~~*CAUTION: The inoperable isolation valve(s) may be part of a system(s). Isolating the affected penetration(s) may affect the use of the system(s). Consider the technical specification requirements on the affected system(s) and act accordingly.~~

4. Add note to Actions in LCO 3.7.2, "Component Cooling Water System,":

   Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for residual heat removal loops made inoperable by CCW.

5. Add note to Actions in LCO 3.7.3, "Intake Cooling Water System":

   Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for residual heat removal loops made inoperable by ICW.

6. Revise LCO 3.8.1.1, 'AC Sources - Operating," Action a to include the following:

   Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.

7. Add note to LCO 3.8.1.1, 'AC Sources - Operating," Action c:

   Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution - Operating," when ACTION c is entered with no AC power to any train.

8. Revise LCO 3.8.1.1, 'AC Sources - Operating," Action e to include the following:

   Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.

9. Add note to Action in LCO 3.8.1.2, "A.C. Sources – Shutdown":

   Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution – Shutdown," with one required train de-energized as a result of inoperable offsite circuit.

10. Add note to LCO 3.8.3.1, "Onsite Power Distribution - Operating," Action a:

    Enter applicable ACTIONS of LCO 3.8.2.1, "DC Sources - Operating," for DC trains made inoperable by inoperable power distribution system.

d. Add new administrative TS 6.8.4.n, Safety Function Determination Program (SFDP).

2.3.4 Safety Function Determination Program (SFDP)

The proposed change adds a new Safety Function Determination Program to the administrative section of the St. Lucie, Seabrook, and Turkey Point TS:

Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6 [3.0.7 for Turkey Point], an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONS. This program implements the requirements of Specification [3.0.6.][3.0.7]. The SFDP shall contain the following:

a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,

b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,

c. Provisions to ensure that an inoperable supported system's allowed outage time is not inappropriately extended as a result of multiple support system inoperabilities, and

d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or

b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or

c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONS to enter are those of the support system.

3.0 TECHNICAL EVALUATION

3.1 Change to LCO 3.0.1 and LCO 3.0.2 (Seabrook and Turkey Point)

LCO 3.0.1 in the current TS for Seabrook and Turkey Point requires (1) compliance with the LCOs when in the Applicability of the TS, and (2) meeting the Action requirements upon a failure to meet the LCO. LCO 3.0.2 discusses that when the requirements of an LCO and the associated Action requirements are not met within the specified time intervals, noncompliance with the TS exists; and completion of Actions is not required if an LCO is met prior to expiration of the specified time interval. Incorporating ISTS LCO 3.0.6 into the current TS would be an exception to LCO 3.0.1 and 3.0.2. However, in the ISTS, LCO 3.0.6 is only an exception to LCO 3.0.2. This dissimilarity is the result of differences between LCO 3.0.1 and 3.0.2 in the ISTS and the Seabrook and Turkey Point TS.

NextEra and FPL propose to revise LCO 3.0.1 and 3.0.2 for Seabrook and Turkey Point to be consistent with the ISTS. The revision to LCO 3.0.1 incorporates the first premise in current LCO 3.0.1 that compliance with the LCOs is required when in the Applicability of the TS. The change to LCO 3.0.2 incorporates the second

provision of current LCO 3.0.1 regarding the requirement to meet Actions and retains the current provision that completion of Actions is not required if compliance with the LCO is restored. In addition, the proposed change to LCO 3.0.2 includes the exceptions provided by LCO 3.0.5 and LCO 3.0.6 for Seabrook, and LCO 3.0.6 and 3.0.7 for Turkey Point.

Proposed LCO 3.0.6 to the Seabrook TS and proposed LCO 3.0.7 to the Turkey Point TS are exceptions to LCO 3.0.2, which must be modified to reflect the new LCO as exceptions. The change to LCO 3.0.2 is necessary to allow applying the exceptions provided by LCO 3.0.6 and 3.0.7. The change to revise the wording of LCO 3.0.1 and 3.0.2 to align with the wording in the ISTS is administrative in nature and does not by itself change any technical requirements or alter the TS rules of usage.

3.2 Change to LCO 3.0.2 (St. Lucie)

Proposed new LCO 3.0.6 is an exception to LCO 3.0.2; therefore, LCO 3.0.2 is modified to reference LCO 3.0.6 as an exception. The change to LCO 3.0.2 is necessary in order to apply the exception allowed by LCO 3.0.6. In addition, an editorial change to LCO 3.0.2 removes references to "Required" ACTIONS and "associated conditions." The standard TS (NUREG-1432) use the terms "Condition" and "Required Actions." However, the St. Lucie TS, which are not based on NUREG-1432, do not use these terms and only refer to the term "Action." This editorial revision does not change the technical requirements of LCO 3.0.2.

3.3 Addition of LCO 3.0.6 (St. Lucie and Seabrook) and LCO 3.0.7 (Turkey Point)

The proposed change incorporates ISTS LCO 3.0.6 into the St. Lucie and Seabrook TS as new LCO 3.0.6 and into the Turkey Point TS as new LCO 3.0.7.

LCO 3.0.6 and 3.0.7 establish an exception to LCO 3.0.2 for supported systems that have a support system LCO specified in the TS. The exception to LCO 3.0.2 is provided because LCO 3.0.2 would require that the Actions of the associated inoperable supported system LCO be entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the plant is maintained in a safe condition are specified in the support system LCO's Actions. These Actions may include entering the supported system's Actions or may specify other Actions to be entered. The exception to LCO 3.0.2 is provided because otherwise, applying LCO 3.0.6 and LCO 3.0.7 would result in noncompliance with LCO 3.0.2.

When a support system is inoperable and there is an LCO specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' Actions unless directed to do so by the support system's Actions. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems LCOs'

Actions are eliminated by providing all the actions that are necessary to ensure the plant is maintained in a safe condition in the support system's Actions.

However, there are instances where a support system's Action may either direct a supported system to be declared inoperable or direct entry into Actions for the supported system. This may occur immediately or after some specified delay to perform some other Action. Regardless of whether it is immediate or after some delay, when a support system's Action directs a supported system to be declared inoperable or directs entry into Actions for a supported system, the applicable Actions are entered in accordance with LCO 3.0.2.

The proposed new administrative TS, "Safety Function Determination Program (SFDP)," ensures that a loss of safety function is detected and that appropriate actions are taken. Upon entry into LCO 3.0.6 or 3.0.7, an evaluation is performed to determine if a loss of safety function exists. Additionally, other appropriate actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system Actions. The SFDP implements the requirements of LCO 3.0.6 and 3.0.7 as discussed below.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. If an evaluation determines that a loss of safety function exists, the appropriate Actions of the LCO in which the loss of safety function exists are required to be entered.

When a loss of safety function is determined to exist, and the SFDP requires entry into the appropriate Actions of the LCO in which the loss of safety function exists, consideration is given to the specific type of function affected. Where a loss of function is solely due to a single TS support system (e.g., loss of automatic start due to inoperable instrumentation, or loss of pump suction source due to low tank level), the appropriate LCO is the LCO for the support system. The Actions for a support system LCO adequately address the inoperabilities of that system without reliance on entering its supported system LCO. When the loss of function is the result of multiple support systems, the appropriate LCO is the LCO for the supported system.

The proposed addition of LCO 3.0.6 to the St. Lucie and Seabrook TS and LCO 3.0.7 to the Turkey Point TS would eliminate potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCO conditions and required actions by providing all the actions that are necessary to ensure the plant is maintained in a safe condition in the support system's required actions. The proposed change is consistent with LCO 3.0.6 in the ISTS. Based on these considerations, FPL and NextEra conclude that the proposed change is acceptable.

3.4 New Notes that Direct Entering Actions of Supported Systems

Proposed LCO 3.0.6 and 3.0.7 require entering the Actions of the LCOs for supported systems when directed by a support systems' Actions, and the ISTS Bases for LCO 3.0.6 discuss that there are instances where a support system's Action may

either direct a supported system to be declared inoperable or direct entry into the Actions for the supported system. As a result, this proposed change adds notes that modify various support system Actions to direct entering the Actions of supported systems or other TS systems affected by the inoperable support system or component. The proposed notes are consistent with those included in the ISTS that are applicable to St. Lucie, Seabrook, and Turkey Point. Attachment 3 provides tables that identify the notes in the ISTS that direct entering the Actions of supported or affected systems and shows how the applicable notes are addressed in this proposed change.

The proposed notes and their bases are discussed below.

a. A note modifies LCO 3.4.6.2, "Reactor Coolant System Leakage," to direct entering the applicable Actions for systems made inoperable by an inoperable pressure isolation valve (PIV). This note requires an evaluation of affected systems if a PIV is inoperable. The leakage may have affected system operability, or isolation of a leaking flow path with an alternate valve may have degraded the ability of the interconnected system to perform its safety function.

   For St. Lucie Unit 1, the parenthetical information in TS 3.4.6.2 Action c "Note, however, that this may lead to ACTION requirements for systems involved" is deleted. The new note replaces this informational note with specific direction to enter the applicable Actions for affected systems.

b. A note modifies LCO 3.6.1.3, "Containment Air Locks," to direct entering the Action of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate acceptance criteria.

c. The Actions in LCO 3.6.3 (3.6.3.1 for St. Lucie Unit 1, 3.6.4 for Turkey Point), "Containment Isolation Valves," are modified by two notes. The first note requires entering the Actions for systems made inoperable as a result of inoperable containment isolation valves to ensure that appropriate remedial actions are taken. The second note directs entering the Action of LCO 3.6.1.2, "Containment Leakage," when isolation leakage results in exceeding the overall containment leakage rate acceptance criteria. For Turkey Point, the first note replaces the footnote in TS 3.6.4, which is deleted.

d. For St. Lucie, the Action in LCO 3.7.3.1 (Unit 1) LCO 3.7.3 (Unit 2), " Component Cooling Water," is modified by a note that directs entering the applicable Actions of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for shutdown cooling loops made inoperable by CCW. This is an exception to LCO 3.0.6 that ensures the proper actions are taken for this condition.

e. For Seabrook, the Action in LCO 3.7.3, "Primary Component Cooling Water," is modified by a note that directs entering the Action of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for residual heat removal loops made inoperable by primary component cooling water. This is an exception to LCO 3.0.6 that ensures the proper actions are taken for this condition.

f. For Turkey Point, the Action in LCO 3.7.2, "Component Cooling Water System," is modified by a note that directs entering the Action of LCO 3.4.1.3,

"Reactor Coolant System – Hot Shutdown," for residual heat removal loops made inoperable by CCW. This is an exception to LCO 3.0.7 that ensures the proper actions are taken for this condition.

g. For St. Lucie, the Action in LCO 3.7.4.1 (Unit 1) LCO 3.7.4 (Unit 2), "Intake Cooling Water System," is modified by a note that directs entering the applicable Actions of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for shutdown cooling loops made inoperable by ICW. This is an exception to LCO 3.0.6 that ensures the proper actions are taken for this condition.

h. For Seabrook, two notes modify the Actions in LCO 3.7.4, "Service Water/Ultimate Heat Sink." The first requires entering the applicable Action of LCO 3.8.1.1, "AC Sources - Operating," for a diesel generator (DG) made inoperable by service water. The second note directs entering the Action of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for a residual heat removal loop made inoperable by service water. These notes are an exception to LCO 3.0.6 and ensure that the appropriate actions are taken for the supported systems rendered inoperable by service water.

i. For Turkey Point, the Action in LCO 3.7.3, "Intake Cooling Water System," is modified by a note that directs entering the applicable Actions of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for shutdown residual heat removal loops made inoperable by ICW. This is an exception to LCO 3.0.7 that ensures the proper actions are taken for this condition.

j. A note modifies Action c in LCO 3.8.1.1, "AC Sources - Operating," to require entering the applicable Actions of the LCO for ["Onsite Power Distribution - Operating" (Seabrook and Turkey Point)] ["A.C. Distribution-Operating" (St. Lucie)] when Action c (one offsite circuit and one DG inoperable) is entered with no AC power to any train. Pursuant to LCO 3.0.6 and 3.0.7, the Actions of LCO 3.8.3.1 would not be entered even if all AC sources to the distribution system were inoperable, resulting in de-energization. Therefore, Action c is modified by a Note to indicate that when the Action is entered with no AC source to any train, the Actions for LCO 3.8.3.1, Onsite Power Distribution - Operating," must be entered. This allows Action c to provide requirements for the loss of one offsite circuit and one DG without regard to whether a train is de-energized while LCO 3.8.3.1 provides the appropriate restrictions for a de-energized train.

k. For St. Lucie, a note modifies the Action in LCO 3.8.1.2, "Electrical Power Systems – Shutdown," that directs entering the Action of LCO 3.8.2.2, "A.C. Distribution – Shutdown" (Unit 1) LCO 3.8.2.2, "Onsite Power Distribution – Shutdown" (Unit 2), with one required train de-energized as a result of an inoperable offsite circuit. Pursuant to LCO 3.0.6, the Action of LCO 3.8.2.2 is not entered even if all AC sources to it are inoperable, resulting in de-energization. Therefore, the Action of LCO 3.8.1.2 is modified by a note to indicate that when this Action is entered with no AC power to any required engineered safety features (ESF) bus, the Action for LCO 3.8.2.2 must be entered. This note allows the Action in LCO 3.8.1.2 to provide requirements for the loss of the offsite circuit, whether or not a train is de-energized. LCO 3.8.2.2

provides the appropriate restrictions for the situation involving a de-energized train.

l. For Seabrook and Turkey Point, a note modifies the Action in LCO 3.8.1.2, "A.C. Sources – Shutdown," that directs entering the Action of LCO 3.8.3.2, "Onsite Power Distribution – Shutdown," with one required train de-energized as a result of an inoperable offsite circuit. Pursuant to proposed LCO 3.0.6 and 3.0.7, the Action of LCO 3.8.3.2 would not be entered even if all AC sources to it were inoperable, resulting in de-energization. Therefore, the Action of LCO 3.8.1.2 is modified by a note to indicate that when the Action is entered with no AC power to any required ESF bus, the Action of LCO 3.8.3.2 must be entered. This note allows LCO 3.8.1.2 to provide requirements for the loss of the offsite circuit, whether or not a train is de-energized. LCO 3.8.3.2 would provide the appropriate restrictions for the situation involving a de-energized train.

m. For St. Lucie, a note modifies the Action in LCO 3.8.2.1, "A.C. Power Distribution – Operating " (Unit 1) LCO 3.8.3.1, "Onsite Power Distribution – Operating," (Unit 2) that directs entering the applicable Actions of LCO 3.8.2.3, "D.C. Distribution – Operating" (Unit 1) LCO 3.8.2.1, "D.C. Sources – Operating," for DC trains made inoperable by inoperable AC distribution system. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components. Inoperability of a distribution system can result in loss of charging power to batteries and eventual loss of DC power. This note ensures that the appropriate attention is given to restoring charging power to batteries, if necessary, after loss of distribution systems.

n. For Seabrook and Turkey Point, a note modifies Action a in LCO 3.8.3.1, "Onsite Power Distribution - Operating," to direct entering the applicable Actions of LCO 3.8.2.1, "DC Sources - Operating," for DC trains made inoperable by inoperable AC power distribution system. This is an exception to LCO 3.0.6 and 3.0.7 and ensures the proper actions are taken for these components. Inoperability of a distribution system can result in loss of charging power to batteries and eventual loss of DC power. This note ensures that the appropriate attention is given to restoring charging power to batteries, if necessary, after loss of distribution systems.

3.5 Changes to Actions in LCO 3.8.1.1, "AC Sources - Operating"

Supported systems are not declared inoperable solely as a result of inoperability of a normal or emergency electrical power source because, based on the TS definition, operability requires either normal or emergency electrical power. Proposed LCO 3.0.6 and 3.0.7 rely on the Actions for inoperable AC sources and inoperable DGs to provide the necessary restriction for cross-train inoperabilities. Required Actions A.2, B.2, and C.1 in ISTS LCO 3.8.1, "AC Sources - Operating," address cross-train inoperabilities for the conditions that an offsite circuit is inoperable, a DG is inoperable, or both offsite circuits are inoperable, respectively. The current TS address cross-train inoperability only for the condition that a DG is inoperable. Consequently, this change revises TS 3.8.1.1 Actions a and d for inoperable offsite circuits to address cross train inoperability consistent with the ISTS.

3.5.1 Changes to LCO 3.8.1.1 – St. Lucie Units 1 and 2

a. Below is current LCO 3.8.1.1, Action a:

> With one offsite circuit of 3.8.1.1.a inoperable, except as provided in Action f. below, 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. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

FPL proposes to revise Action a to the following:

1. 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.
2. ***Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s)***
3. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.
4. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

This Action addresses the condition that one of the two required offsite circuits is inoperable. The proposed change reformats the Action and adds a requirement in item 2 to declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s). The proposed Action applies when one train has no offsite power supplying its loads, and a required feature on the other train is inoperable. The completion time for this Action starts upon discovery that a train has no offsite power supplying its loads and a redundant required feature subsequently becomes inoperable.

Action a.2 provides assurance that an event coincident with a single failure of the associated DG will not result in a complete loss of safety function of critical redundant required features. These features are powered from the redundant AC electrical power train. The 24-hour completion time is intended to allow the operator time to evaluate and repair any discovered inoperabilities and considers the capacity and capability of the remaining AC sources and the low probability of a design basis accident occurring during this period.

The St. Lucie auxiliary feedwater (AFW) system consists of one steam driven pump with greater than full flow capacity and two full flow capacity motor driven auxiliary feedwater pumps. Each motor-driven pump supplies feedwater to one steam generator, and the turbine-driven pump supplies feedwater to both steam generators. The turbine driven AFW pump is considered a redundant required feature because the design is such that the remaining operable motor driven AFW pumps are not by themselves capable (without any reliance on the motor driven auxiliary feedwater pump powered by the emergency bus associated with the inoperable diesel generator) of providing 100% of the auxiliary feedwater flow assumed in the safety analysis.

The change to reformat the Action from a narrative paragraph to a list of discrete steps is administrative in nature and does not alter the technical requirements of the Action. This change enhances the presentation and clarity of the Action for the benefit of the TS user.

b. Below is current LCO 3.8.1.1 Action b:

With one diesel generator of 3.8.1.1.b inoperable, demonstrate the OPERABILITY of the A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and if the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*; restore the diesel generator to OPERABLE status within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.

FPL proposes to revise Action b as shown below:

1. Demonstrate the OPERABILITY of the A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.
2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.

3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*.
4. Restore the diesel generator to OPERABLE status within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

The change to reformat the Action from a narrative paragraph to a list of discrete steps is administrative in nature and does not alter the technical requirements of the Action. This change enhances the presentation and clarity of the Action for the benefit of the TS user.

c. Below is current LCO 3.8.1.1 Action c:

With one offsite A.C. circuit and one diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and if the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION Statement a or b, as appropriate, with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable A.C. power source. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.

FPL proposes to revise Action c as shown below:

NOTE

[Enter applicable ACTIONs of LCO 3.8.2.1, A.C. Distribution - Operating," when ACTION c is entered with no AC power to any train.] (Unit 1)

[Enter applicable ACTIONs of LCO 3.8.3.1, A.C. Distribution - Operating," when ACTION c is entered with no AC power to any train.] (Unit 2)

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c. With one offsite A.C. circuit and one diesel generator inoperable:

1. Demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter.
2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.
3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*.
4. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.
6. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION Statement a or b, as appropriate, with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable A.C. power source.

The proposed change adds a note that modifies Action c to require entering the applicable Actions of the LCO for "A.C. Distribution – Operating," when Action c is entered with no AC power to any train. This allows Action c to provide requirements for the loss of one offsite circuit and one DG without regard to whether a train is de-energized. The Actions in LCO 3.8.2.1 (Unit 1) and 3.8.3.1 (Unit 2), "A.C. Distribution – Operating," provide the restrictions for a de-energized train.

The change to reformat the Action from a narrative paragraph to a list of discrete steps is administrative in nature and does not alter the technical requirements of the Action. This change enhances the presentation and clarity of the Action for the benefit of the TS user.

d. Below is current LCO Action d:

With two of the required offsite A.C. circuits inoperable, restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow ACTION Statement a. with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable offsite A.C. circuit.

FPL proposes to revise Action d as shown below:

d. With two of the required offsite A.C. circuits inoperable:
   1. ***Declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s).***
   2. Restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours.
   3. Following restoration of one offsite source, follow ACTION Statement a. with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable offsite A.C. circuit.

This Action applies when both of the required offsite circuits are inoperable. The proposed change reformats the Action and adds a requirement in item 1 to declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery two offsite circuits inoperable concurrent with inoperability of redundant required feature(s). Action d.1 is intended to provide assurance that an event with a coincident single failure will not result in a complete loss of redundant required safety functions. These features are powered from redundant AC safety trains. This includes motor driven

auxiliary feedwater pumps. Single train features, such as turbine driven auxiliary pumps, are not included. The completion time for Action d.1 would start upon discovery that both offsite circuits are inoperable and a required feature is discovered inoperable.

With two offsite circuits inoperable, the completion time for inoperable redundant required features is reduced to 12 hours from that allowed for one train without offsite power. The rationale for the reduction to 12 hours is that Regulatory Guide 1.93 allows a completion time of 24 hours for two required offsite circuits inoperable, based upon the assumption that two complete safety trains are operable. When a concurrent redundant required feature failure exists, this assumption is not the case, and a shorter completion time of 12 hours is appropriate. The completion time is intended to allow the operator time to evaluate and repair any discovered inoperabilities.

3.5.2 Changes to LCO 3.8.1.1 – Seabrook

a. Below is current LCO 3.8.1.1 Action a:

> With an offsite circuit of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. source by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least two offsite circuits to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

NextEra proposes to revise Action a as shown below:

a. With an offsite circuit of the above required A.C. electrical power sources inoperable:

   1. Perform Surveillance Requirement 4.8.1.1.1a for the OPERABLE offsite circuit within 1 hour and at least once per 8 hours thereafter;

   2. Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s); and

   3. Restore at least two offsite circuits to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

This Action addresses the condition that one of the two required offsite circuits is inoperable. The proposed change reformats the Action and adds a requirement to declare required feature(s) with no offsite power

available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s). Proposed Action a.2 applies when one train has no offsite power supplying its loads, and a required feature on the other train is inoperable. The completion time for this Action a.2 would start upon discovery that a train has no offsite power supplying its loads and a redundant required feature subsequently becomes inoperable.

Action a.2 provides assurance that an event coincident with a single failure of the associated DG will not result in a complete loss of safety function of critical redundant required features. These features are powered from the redundant AC electrical power train. Since the emergency feedwater (EFW) system incudes only one motor-driven pump, the turbine-driven EFW pump is considered a required redundant feature. The 24-hour completion time is intended to allow the operator time to evaluate and repair any discovered inoperabilities and considers the capacity and capability of the remaining AC sources and the low probability of a design basis accident occurring during this period.

The change to reformat the Action from a narrative paragraph to a list of discrete steps is administrative in nature and does not alter the technical requirements of the Action. This change enhances the presentation and clarity of the Action for the benefit of the TS user.

b. Below is current LCO 3.8.1.1 Action e:

e. With two of the above required offsite A.C. circuits inoperable; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

NextEra proposes to revise Action e as shown below:

e. With two of the above required offsite A.C. circuits inoperable

1. Declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s);

2. Restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours.

3. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

This Action applies when both of the required offsite circuits are inoperable. The proposed change reformats the Action and adds a requirement to declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery two offsite circuits inoperable concurrent with inoperability of redundant required feature(s). These features are powered from redundant AC safety trains. Single train features, such as turbine driven auxiliary pumps, are not included in the list.. The completion time for this Action would start at any time that both offsite circuits are inoperable and a required feature is discovered inoperable.

With two offsite circuits inoperable, the completion time for inoperable redundant required features is reduced to 12 hours from that allowed for one train without offsite power. The rationale for the reduction to 12 hours is that Regulatory Guide 1.93 allows a completion time of 24 hours for two required offsite circuits inoperable, based upon the assumption that two complete safety trains are operable. When a concurrent redundant required feature failure exists, this assumption is not the case, and a shorter completion time of 12 hours is appropriate. The completion time is intended to allow the operator time to evaluate and repair any discovered inoperabilities.

The change to reformat the Action from a narrative paragraph to a list of discrete steps is administrative in nature and does not alter the technical requirements of the Action. This change enhances the presentation and clarity of the Action for the benefit of the TS user.

3.5.3 Changes to LCO 3.8.1.1 – Turkey Point

a. Below is current LCO 3.8.1.1 Action a:

a. With one of two startup transformers or an associated circuit inoperable, demonstrate the OPERABILITY of the other startup transformer and its associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit is in MODE 1, reduce THERMAL POWER to $\leq$30% RATED THERMAL POWER within 24 hours, or restore the inoperable startup transformer and associated circuits to OPERABLE status within the next 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If THERMAL POWER is reduced to $\leq$30% RATED THERMAL POWER within 24 hours or if the inoperable startup

transformer is associated with the opposite unit restore the startup transformer and its associated circuits to OPERABLE status within 30 days of the loss of OPERABILITY, or be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit was in MODE 2, 3, or 4 restore the startup transformer and its associated circuits to OPERABLE status within 24 hours or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.

FPL proposes to revise Action a as shown below:

a. With one of two startup transformers or an associated circuit inoperable:

1. Demonstrate the OPERABILITY of the other startup transformer and its associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.

2. ***Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s).***

3. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit is in MODE 1:

   a) Reduce THERMAL POWER to ≤30% RATED THERMAL POWER within 24 hours, or

   b) Restore the inoperable startup transformer and associated circuits to OPERABLE status within the next 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

4. If THERMAL POWER is reduced to ≤30% RATED THERMAL POWER within 24 hours or if the inoperable startup transformer is associated with the opposite unit, restore the startup transformer and its associated circuits to OPERABLE status within 30 days of the loss of OPERABILITY, or be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours.

5. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit was in MODE 2, 3, or 4 restore the startup transformer and its associated

circuits to OPERABLE status within 24 hours or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.

This Action addresses the condition that one of the two required offsite circuits is inoperable. The proposed change reformats the Action and adds a requirement to declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s). Proposed Action a.2 applies when one train has no offsite power supplying its loads, and a required feature on the other train is inoperable. The completion time for this Action a.2 would start upon discovery that a train has no offsite power supplying its loads and a redundant required feature subsequently becomes inoperable.

Action a.2 provides assurance that an event coincident with a single failure of the associated DG will not result in a complete loss of safety function of critical redundant required features. These features are powered from the redundant AC electrical power train. The 24-hour completion time is intended to allow the operator time to evaluate and repair any discovered inoperabilities and considers the capacity and capability of the remaining AC sources and the low probability of a design basis accident occurring during this period.

The change to reformat the Action from a narrative paragraph to a list of discrete steps is administrative in nature and does not alter the technical requirements of the Action. This change enhances the presentation and clarity of the Action for the benefit of the TS user.

b. Below is current LCO 3.8.1.1 Action b:

   b. With one of the required diesel generators inoperable, demonstrate the OPERABILITY of the above required startup transformers and their associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours, unless the absence of any potential common mode failure for the remaining diesel generators is determined. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY. Restore the inoperable diesel generator to OPERABLE status within 14 days** or be in at least HOT

STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

FPL proposes to revise Action b as shown below:

b. With one of the required diesel generators inoperable:

1. Demonstrate the OPERABILITY of the above required startup transformers and their associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.

2. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours, unless the absence of any potential common mode failure for the remaining diesel generators is determined. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY.

3. Restore the inoperable diesel generator to OPERABLE status within 14 days** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

The change to reformat the Action from a narrative paragraph to a list of discrete steps is administrative in nature and does not alter the technical requirements of the Action. This change enhances the presentation and clarity of the Action for the benefit of the TS user.

c. Below is current LCO 3.8.1.1 Action c:

c. With one startup transformer and one of the required diesel generators inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a on the remaining startup transformer and associated circuits within one hour and at least once per 8 hours thereafter; and if the 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 required diesel generators by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable diesel generator does not exist on the remaining required diesel generators, unless the diesel generators are already operating; restore one of the inoperable sources to OPERABLE status in accordance with Action

Statements a and b, as appropriate. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY. Notify the NRC within 4 hours of declaring both a start-up transformer and diesel generator inoperable. Restore the other A.C. power source (startup transformer or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate, with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source.

FPL proposes to revise Action c as shown below:

NOTE

Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution - Operating," when ACTION c is entered with no AC power source to any train.

---

c. With one startup transformer and one of the required diesel generators inoperable:

   1. Notify the NRC within 4 hours of declaring both a start-up transformer and diesel generator inoperable.

   2. If the 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 required diesel generators by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable diesel generator does not exist on the remaining required diesel generators, unless the diesel generators are already operating. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY.

   3. Restore one of the inoperable sources to OPERABLE status in accordance with Action Statements a and b, as appropriate.

   4. Restore the other A.C. power source (startup transformer or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate, with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source.

The proposed change adds a note that modifies Action c to require entering the applicable Actions of the 3.8.3.1, "Onsite Power Distribution - Operating," when ACTION c is entered with no AC power source to any train. This allows Action c to provide requirements for the loss of one offsite circuit and one DG without regard to whether a train is de-energized. The Actions in LCO 3.8.3.1 "Onsite Power Distribution – Operating," provide the restrictions for a de-energized train.

The change to reformat the Action from a narrative paragraph to a list of discrete steps is administrative in nature and does not alter the technical requirements of the Action. This change enhances the presentation and clarity of the Action for the benefit of the TS user.

d. Below is current LCO 3.8.1.1 Action e:

With two of the above required startup transformers or their associated circuits inoperable notify the NRC within 4 hours; restore at least one of the inoperable startup transformers to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours* and in COLD With only one startup transformer and associated circuits restored, perform Surveillance Requirement 4.8.1.1.1a on the OPERABLE Startup transformer at least once per 8 hours, and restore the other startup transformer and its associated circuits to OPERABLE status or shutdown in accordance with the provisions of Action Statement 3.8.1.1a with time requirements of that Action Statement based on the time of initial loss of a startup transformer. This ACTION applies to both units simultaneously.

FPL proposes to revise Action c as shown below:

e. With two of the above required startup transformers or their associated circuits inoperable:

1. Notify the NRC within 4 hours.

2. ***Declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s)***

3. Restore at least one of the inoperable startup transformers to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours* and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.

4. With only one startup transformer and associated circuits restored, perform Surveillance Requirement 4.8.1.1.1a on the OPERABLE Startup transformer at least once per 8 hours, and restore the other startup transformer and its associated circuits to OPERABLE status or shutdown in accordance with the provisions of Action Statement 3.8.1.1a with time requirements of that Action Statement based on the time of initial loss of a startup transformer. This ACTION applies to both units simultaneously.

This Action applies when both of the required startup transformers or their associated circuits are inoperable. The proposed change reformats the Action and adds a requirement to declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery two offsite circuits inoperable concurrent with inoperability of redundant required feature(s). These features are powered from redundant AC safety trains. The completion time for this Action would start at any time that both offsite circuits are inoperable and a required feature is discovered inoperable.

With two offsite circuits inoperable, the completion time for inoperable redundant required features is reduced to 12 hours from that allowed for one train without offsite power. The rationale for the reduction to 12 hours is that Regulatory Guide 1.93 allows a completion time of 24 hours for two required offsite circuits inoperable, based upon the assumption that two complete safety trains are operable. When a concurrent redundant required feature failure exists, this assumption is not the case, and a shorter completion time of 12 hours is appropriate. The completion time is intended to allow the operator time to evaluate and repair any discovered inoperabilities.

The change to reformat the Action from a narrative paragraph to a list of discrete steps is administrative in nature and does not alter the technical requirements of the Action. This change enhances the presentation and clarity of the Action for the benefit of the TS user.

3.6 Safety Function Determination Program

While LCO 3.0.6 (3.0.7 for Turkey Point) allows not entering the Actions for supported systems that are inoperable solely due to a support system LCO not being met, it also requires an evaluation in accordance with the Safety Function Determination Program (SFDP) to determine if a loss of safety function exists. Accordingly, this change proposes to add a SFDP to the administrative section of the TS.

This program ensures that a loss of safety function is detected and appropriate actions are taken. Upon entry into LCO 3.0.6 or 3.0.7, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and

corresponding exception to entering supported system ACTIONs. This program implements the requirements of Specification 3.0.6 and 3.0.7 and contains the following:

a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,

b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,

c. Provisions to ensure that an inoperable supported system's completion time is not inappropriately extended as a result of multiple support system inoperabilities, and

d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or

b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or

c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONs of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single TS support system, the appropriate ACTIONs to enter are those of the support system.

The proposed SFDP is consistent with the SFDP in ISTS Specification 5.15, "Safety Function Determination Program (SFDP)," with a variation due to the differences between the content of the ISTS and the non-ISTS. The proposed SFDP uses the term ACTIONS rather than Conditions and Required Actions. This variation does not make any technical changes to the SFDP.

4.0 REGULATORY ANALYSIS

4.1 Applicable Regulatory Requirements/Criteria

- NUREG-0800, Standard Review Plan - discusses in section 16, Technical Specifications, that plants with TS based on the previous standard TS and plants with custom TS may partially adopt ISTS provisions without adopting the ISTS format. TS change requests for facilities with TS based on previous standard TS should comply with comparable provisions in the ISTS to the extent possible or justify deviations from the ISTS.
- 10 CFR 50.36 Technical Specifications - establishes the requirements for information that must be included in the TS.

The proposed change is consistent with the above requirements.

4.2 Precedent

- The proposed changes are consistent with NUREG-1431, Standard Technical Specifications Westinghouse Plants, and NUREG-1432, Standard Technical Specifications Combustion Engineering Plants.
- In September 2015, Limerick Generating Station received Amendments 219 and 181 [Reference 5], which among other changes, added LCO 3.0.6 and the SFDP to the TS. The NRC approved the addition of LCO 3.0.6 to the TS (non-ISTS) on the basis that it would eliminate potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCO conditions and required actions by providing all the actions that are necessary to ensure the plant is maintained in a safe condition in the support system's required actions.

4.3 No Significant Hazards Consideration

The proposed amendments modify the Technical Specifications (TS) for St. Lucie, Seabrook, and Turkey Point to incorporate the provisions of Limiting Condition for Operation (LCO) 3.0.6 in the ISTS, which provide the actions to be taken when the inoperability of a support system results in the inoperability of related supported systems. In addition, the proposed change adds a new Safety Function Determination Program to the administrative section of the TS to ensure that a loss of safety function is detected and appropriate actions are taken when using the provisions of LCO 3.0.6.

FPL and NextEra evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of Amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

This change is associated with the administrative requirements for implementing the TS, which are not initiators of any accidents previously evaluated, so the probability of accidents previously evaluated is unaffected by the proposed change. The proposed change does not alter the design, function, or operation of any plant structure, system, or component (SSC). The capability of any operable TS-required SSC to perform its specified safety function is not impacted by the proposed change. As a result, the outcomes of accidents previously evaluated are unaffected. Therefore, the proposed change does not result in a significant increase in the probability or consequences of an accident previously evaluated.

Therefore, it is concluded that this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No.

   The proposed change does not challenge the integrity or performance of any safety-related systems. No plant equipment is installed or removed, and the changes do not alter the design, physical configuration, or method of operation of any plant SSC. No physical changes are made to the plant, so no new causal mechanisms are introduced. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

   Therefore, it is concluded that this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No.

   The ability of any operable SSC to perform its designated safety function is unaffected by the proposed changes. The proposed change does not alter any safety analyses assumptions, safety limits, limiting safety system settings, or method of operating the plant. The change does not adversely affect plant operating margins or the reliability of equipment credited in the safety analyses.

   The proposed change allows not entering the Actions for supported systems that are inoperable solely due to a support system LCO not being met. However, the change also requires implementing a Safety Function Determination Program (SFDP) to determine if a loss of safety function exists. If the SFDP determines that a loss of safety function exists, the appropriate actions of the LCO in which the loss of safety function exists are required to be entered.

   Therefore, the proposed change does not involve a significant reduction in the margin of safety.

Based on the above, FPL and NextEra conclude that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

4.4 Conclusion

In conclusion, based on the considerations above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the general public.

5.0 ENVIRONMENTAL EVALUATION

The proposed change would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

6.0 REFERENCES

1. NUREG-0452, Standard Technical Specifications for Westinghouse Pressurized Water Reactors, Revision 3, Fall 1981.

2. NUREG-1431, Standard Technical Specifications Westinghouse Plants, Revision 4.0, April 2012.

3. NUREG-0212, Standard Technical Specifications for Combustion Engineering Pressurized Water Reactors, Revision 2, Fall 1980.

4. NUREG-1432, Standard Technical Specifications Combustion Engineering Plants, Revision 4.0, April 2012.

5. NRC letter "Limerick Generating Station, Units 1 and 2 - Issuance of Amendment Re: Proposed Change to Add New Limiting Conditions for Operation 3.0.5 and 3.0.6 (TAC Nos. MF5133 and MF5134)," September 15, 2015 (ML15218A501).

ATTACHMENT 1

Proposed Technical Specification Changes (Mark-Up)

St. Lucie Unit 1 Proposed Technical Specification Changes (Mark-Up)

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

and LCO 3.0.6

3.0.1 Limiting Conditions for Operation (LCO) shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.

3.0.2 Upon discovery of a failure to meet an LCO, the ~~Required~~ ACTION(s) ~~of the associated conditions~~ shall be met, except as provided in LCO 3.0.5. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the ~~Required~~ ACTION(s) is not required, unless otherwise stated.

3.0.3 When a Limiting Condition for Operation (LCO) is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which specification does not apply by placing it, as applicable in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the LCO. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODES 5 or 6.

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

a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;

b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or

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

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

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

INSERT LCO 3.0.6

INSERT LCO 3.0.6

3.0.6 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.8.4.r, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

REACTOR COOLANT SYSTEM

REACTOR COOLANT SYSTEM LEAKAGE

LIMITING CONDITION FOR OPERATION

3.4.6.2 Reactor Coolant System operational leakage shall be limited to:

a. No PRESSURE BOUNDARY LEAKAGE,

b. 1 GPM UNIDENTIFIED LEAKAGE,

c. 150 gallons per day primary-to-secondary leakage through any one steam generator (SG),

d. 10 GPM IDENTIFIED LEAKAGE from the Reactor Coolant System, and

e. Leakage as specified in Table 3.4.6-1 for each Reactor Coolant System Pressure Isolation Valve identified in Table 3.4.6-1.

.....NOTE.....
Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.
.....

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With any PRESSURE BOUNDARY LEAKAGE, or with primary-to-secondary leakage not within limit, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With any Reactor Coolant System operational leakage greater than any one of the above limits, excluding primary-to-secondary leakage, PRESSURE BOUNDARY LEAKAGE, and Reactor Coolant System Pressure Isolation Valve leakage, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the limit in 3.4.6.2.e above reactor operation may continue provided that at least two valves, including check valves, in each high pressure line having a non-functional valve are in and remain in the mode corresponding to the isolated condition. Motor operated valves shall be placed in the closed position, and power supplies deenergized. ~~(Note, however, that this may lead to ACTION requirements for systems involved.)~~ Otherwise, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.6.2 Reactor Coolant System operational leakages shall be demonstrated to be within each of the above limits by:

a. Monitoring the containment atmosphere gaseous and particulate radioactivity in accordance with the Surveillance Frequency Control Program.

.....NOTE.....
Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding overall containment leakage rate acceptance criteria.
.....

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE with:

a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and

b. An overall air lock leakage rate in accordance with the Containment Leakage Rate Testing Program.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one containment air lock door inoperable*:

1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.

2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be closed at least once per 31 days.

3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

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* If the inner air lock door is inoperable, passage through the OPERABLE outer air lock door is permitted to effect repairs to the inoperable inner air lock door. No more than one airlock door shall be open at any time.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3.1 The containment isolation valves shall be OPERABLE:

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more of the isolation valve(s) inoperable, either:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or

d. Be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

SURVEILLANCE REQUIREMENTS

4.6.3.1.1 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 the cycling test, and verification of isolation time.

.....NOTES.....

1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves.

2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when leakage results in exceeding the overall containment leakage rate acceptance criteria.

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3.1 At least two independent component cooling water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

SURVEILLANCE REQUIREMENTS

4.7.3.1 At least two component cooling water loops shall be demonstrated OPERABLE:

a. In accordance with the Surveillance Frequency Control Program 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. In accordance with the Surveillance Frequency Control Program during shutdown by verifying that each automatic valve servicing safety related equipment actuates to its correct position on a Safety Injection Actuation Signal.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for shutdown cooling loops made inoperable by CCW.
.....

PLANT SYSTEMS

3/4.7.4 INTAKE COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4.1 At least two independent intake cooling water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With only one intake cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

SURVEILLANCE REQUIREMENTS

4.7.4.1 At least two intake cooling water loops shall be demonstrated OPERABLE:

a. In accordance with the Surveillance Frequency Control Program 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. In accordance with the Surveillance Frequency Control Program during shutdown by verifying that each automatic valve servicing safety related equipment actuates to its correct position on a Safety Injection Actuation signal.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for shutdown cooling loops made inoperable by ICW.
.....

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, and

b. Two separate and independent diesel generator sets each with:

1. Engine-mounted fuel tanks containing a minimum of 152 gallons of fuel,

2. A separate fuel storage system containing a minimum of 19,000 gallons of fuel, and

3. A separate fuel transfer pump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

INSERT ACTION a

~~a. With one offsite circuit of 3.8.1.1.a inoperable, except as provided in Action f. below, 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. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.~~

INSERT ACTION b

~~b. With one diesel generator of 3.8.1.1.b inoperable, demonstrate the OPERABILITY of the A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and if the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*; restore the diesel generator to OPERABLE status within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.~~

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* If the absence of any common-cause failure cannot be confirmed, this test shall be completed regardless of when the inoperable EDG is restored to OPERABILITY.

ELECTRICAL POWER SYSTEMS

ACTION (continued)

INSERT ACTION c

~~c. With one offsite A.C. circuit and one diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and if the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION Statement a or b, as appropriate, with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable A.C. power source. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.~~

INSERT ACTION d

~~d. With two of the required offsite A.C. circuits inoperable, restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow ACTION Statement a. with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable offsite A.C. circuit.~~

---

* If the absence of any common-cause failure cannot be confirmed, this test shall be completed regardless of when the inoperable EDG is restored to OPERABILITY.

INSERT ACTION a

a. With one offsite circuit of 3.8.1.1.a inoperable, except as provided in Action f. below:

1. 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.

2. ***Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.***

3. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

4. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

INSERT ACTION b

b. With one diesel generator of 3.8.1.1.b inoperable:

1. Demonstrate the OPERABILITY of the A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.

2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.

3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*.

4. Restore the diesel generator to OPERABLE status within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

INSERT ACTION c

---*NOTE*---

Enter applicable ACTIONs of LCO 3.8.2.1, A.C. Distribution - Operating," when ACTION c is entered with no AC power to any train.

---

c. With one offsite A.C. circuit and one diesel generator inoperable:

1. Demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter.

2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.

3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*.

4. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

6. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION Statement a or b, as appropriate, with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable A.C. power source.

INSERT ACTION d

d. With two of the required offsite A.C. circuits inoperable:

1. ***Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.***

2. Restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours.

3. Following restoration of one offsite source, follow ACTION Statement a. with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable offsite A.C. circuit.

ELECTRICAL POWER SYSTEMS

SHUTDOWN

LIMITING CONDITION FOR OPERATION

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

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. One diesel generator set with:

1. Engine-mounted fuel tanks containing a minimum of 152 gallons of fuel,

2. A fuel storage system containing a minimum of 19,000 gallons of fuel, and

3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, movement of irradiated fuel, or crane operation with loads over the fuel storage pool. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the top of irradiated fuel assemblies seated within the reactor vessel, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.8.1.2.1 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 except for requirement 4.8.1.1.2a.5.

.....NOTE.....
Enter the ACTION of LCO 3.8.2.2, "A.C. Distribution - Shutdown," with one required train de-energized as a result of inoperable offsite circuit.
.....

ELECTRICAL POWER SYSTEMS

3/4.8.2 ONSITE POWER DISTRIBUTION SYSTEMS

A.C. DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.2.1 The following A.C. electrical busses shall be OPERABLE and energized from sources of power other than the diesel generator sets:

4160	volt Emergency Bus	1A3
4160	volt Emergency Bus	1B3
480	volt Emergency Bus	1A2
480	volt Emergency Bus	1B2
480	volt Emergency MCC Busses	1A5, 1A6, 1A7
480	volt Emergency MCC Busses	1B5, 1B6, 1B7
120	volt A.C. Instrument Bus	1MA
120	volt A.C. Instrument Bus	1MB
120	volt A.C. Instrument Bus	1MC
120	volt A.C. Instrument Bus	1MD

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With less than the above complement of A.C. busses OPERABLE, restore the inoperable bus to OPERABLE status within 8 hours 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 The specified A.C. busses shall be determined OPERABLE and energized from A.C. sources other than the diesel generators in accordance with the Surveillance Frequency Control Program by verifying indicated power availability.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.8.2.3, "D.C. Distribution - Operating," for DC trains made inoperable by inoperable AC distribution system.
.....

o. Surveillance Frequency Control Program

This program provides controls for Surveillance Frequencies. The program shall ensure that Surveillance Requirements specified in the Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operation are met.

a. The Surveillance Frequency Control Program shall contain a list of frequencies of those Surveillance Requirements for which the frequency is controlled by the program.

b. Changes to the frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.

c. The provisions of Surveillance Requirements 4.0.2 and 4.0.3 are applicable to the frequencies established in the Surveillance Frequency Control Program.

p. Snubber Testing Program

This program conforms to the examination, testing and service life monitoring for dynamic restraints (snubbers) in accordance with 10 CFR 50.55a inservice inspection (ISI) requirements for supports. The program shall be in accordance with the following:

1. This program shall meet 10 CFR 50.55a(g) ISI requirements for supports.

2. The program shall meet the requirements for ISI of supports set forth in subsequent editions of the Code of Record and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure (BPV) Code and the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) that are incorporated by reference in 10 CFR 50.55a(b) subject to the conditions listed in 10 CFR 50.55a(b) and subject to Commission approval.

3. The program shall, as required by 10 CFR 50.55a(b)(3)(v), meet Subsection ISTA, "General Requirements" and Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants".

4. The 120-month program updates shall be made in accordance with 10 CFR 50.55a(g)(4), 10 CFR 50.55a(g)(3)(v) and 10 CFR 50.55a(b) (including 10 CFR 50.55a(b)(3)(v)) subject to the conditions listed therein.

q. Component Cyclic or Transient Limit Program

INSERT SFDP

The program provides controls to track the FSAR, Section 5.2, cyclic and transient occurrences to ensure that components are maintained within the design limits.

INSERT SFDP

r. Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONs. This program implements the requirements of LCO 3.0.6. The SFDP shall contain the following:

a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,

b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,

c. Provisions to ensure that an inoperable supported system's completion time is not inappropriately extended as a result of multiple support system inoperabilities, and

d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or

b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or

c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONs of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONs to enter are those of the support system.

St. Lucie Unit 2 Proposed Technical Specification Changes (Mark-Up)

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

and LCO 3.0.6

3.0.1 Limiting Conditions for Operation (LCO) shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.

3.0.2 Upon discovery of a failure to meet an LCO, the ~~Required~~ ACTION(s) ~~of the associated conditions~~ shall be met, except as provided in LCO 3.0.5. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the ~~Required~~ ACTION(s) is not required, unless otherwise stated.

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour, action shall be initiated to place the unit in a MODE in which specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODE 5 or 6.

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

a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;

b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or

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

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

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

INSERT LCO 3.0.6

INSERT LCO 3.0.6

3.0.6 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.8.4.s, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

REACTOR COOLANT SYSTEM

OPERATIONAL LEAKAGE

LIMITING CONDITION FOR OPERATION

3.4.6.2 Reactor Coolant System operational leakage shall be limited to:

a. No PRESSURE BOUNDARY LEAKAGE,

b. 1 gpm UNIDENTIFIED LEAKAGE,

c. 150 gallons per day primary-to-secondary leakage through any one steam generator (SG),

d. 10 gpm IDENTIFIED LEAKAGE from the Reactor Coolant System, and

e. 1 gpm leakage (except as noted in Table 3.4-1) at a Reactor Coolant System pressure of 2235 ± 20 psig from any Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1.

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

.....NOTE.....
Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.
.....

ACTION:

a. With any PRESSURE BOUNDARY LEAKAGE or with primary-to-secondary leakage not within limit, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With any Reactor Coolant System operational leakage greater than any one of the limits, excluding primary-to-secondary leakage, PRESSURE BOUNDARY LEAKAGE, and leakage from Reactor Coolant System Pressure Isolation Valves, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed manual or deactivated automatic valves, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

d. With RCS leakage alarmed and confirmed in a flow path with no flow indication, commence an RCS water inventory balance within 1 hour to determine the leak rate.

SURVEILLANCE REQUIREMENTS

4.4.6.2.1 Reactor Coolant System operational leakages shall be demonstrated to be within each of the above limits by:

a. Monitoring the containment atmosphere gaseous and particulate radioactivity monitor in accordance with the Surveillance Frequency Control Program.

b. Monitoring the containment sump inventory and discharge in accordance with the Surveillance Frequency Control Program.

.....NOTE.....
Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding overall containment leakage rate acceptance criteria.
.....

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE with:

a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and

b. An overall air lock leakage rate in accordance with the Containment Leakage Rate Testing Program.

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

ACTION:

a. With one containment air lock door inoperable*:

1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.

2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days.

3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

---

* If the inner air lock door is inoperable, passage through the OPERABLE outer air lock door is permitted to effect repairs to the inoperable inner air lock door. No more than one airlock door shall be open at any time.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more of containment isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or

d. Be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

SURVEILLANCE REQUIREMENTS

4.6.3.1 The containment 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.

.....NOTES.....

1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves.

2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when leakage results in exceeding the overall containment leakage rate acceptance criteria.

.....

PLANT SYSTEMS

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

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

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

ACTION:

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

SURVEILLANCE REQUIREMENTS

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

a. In accordance with the Surveillance Frequency Control Program 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. In accordance with the Surveillance Frequency Control Program during shutdown by verifying that each automatic valve servicing safety-related equipment actuates to its correct position on an SIAS test signal.

---

* When CCW pump 2C is being used to satisfy the requirements of this specification, the alignment of the discharge valves shall be verified to be consistent with the appropriate power supply at least once per 24 hours. Upon receipt of annunciation for improper alignment of the pump 2C motor power in relation to any of its motor-operated discharge valves positions, restore proper system alignment within 2 hours.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for shutdown cooling loops made inoperable by CCW.
.....

3/4.7.4 INTAKE COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4 At least two independent intake cooling water loops shall be OPERABLE.*

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

ACTION:

With only one intake cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

SURVEILLANCE REQUIREMENTS

4.7.4 At least two intake cooling water loops shall be demonstrated OPERABLE:

a. In accordance with the Surveillance Frequency Control Program 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. In accordance with the Surveillance Frequency Control Program during shutdown, by verifying that each automatic valve servicing safety-related equipment actuates to its correct position on a SIAS test signal.

---

* When ICW pump 2C is being used to satisfy the requirements of this specification, the alignment of the discharge valves must be verified to be consistent with the appropriate power supply at least once per 24 hours.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for shutdown cooling loops made inoperable by ICW.
.....

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, and

b. Two separate and independent diesel generators, each with:

1. Two separate engine-mounted fuel tanks containing a minimum volume of 238 gallons of fuel each,

2. A separate fuel storage system containing a minimum volume of 42,500 gallons of fuel, and

3. A separate fuel transfer pump.

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

ACTION:

INSERT ACTION a

~~a. With one offsite circuit of 3.8.1.1.a inoperable, except as provided in Action f. below, 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. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.~~

INSERT ACTION b

~~b. With one diesel generator of 3.8.1.1.b inoperable, demonstrate the OPERABILITY of the A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; and if the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*; restore the diesel generator to OPERABLE status within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.~~

---

* If the absence of any common-cause failure cannot be confirmed, this test shall be completed regardless of when the inoperable EDG is restored to OPERABILITY.

ACTION: (Continued)

INSERT ACTION c

~~c. With one offsite A.C. circuit and one diesel generator inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter; and if the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION Statement a or b, as appropriate, with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable A.C. power source. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.~~

---

* If the absence of any common-cause failure cannot be confirmed, this test shall be completed regardless of when the inoperable EDG is restored to OPERABILITY.

ACTION: (Continued)

INSERT ACTION d

d. ~~With two of the required offsite A.C. circuits inoperable, restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. Following restoration of one offsite source, follow ACTION Statement a. with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable offsite A.C. circuit.~~

e. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two offsite A.C. circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter; restore one of the inoperable diesel generators to OPERABLE status within 2 hours or be in the at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. Following restoration of one diesel generator unit, follow ACTION Statement b. with the time requirement of that ACTION Statement based on the time of initial loss of the remaining inoperable diesel generator.

f. With one Unit 2 startup transformer (2A or 2B) inoperable and with a Unit 1 startup transformer (1A or 1B) connected to the same A or B offsite power circuit and administratively available to both units, then should Unit 1 require the use of the startup transformer administratively available to both units, Unit 2 shall demonstrate the operability of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter. Restore the inoperable startup transformer to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and COLD SHUTDOWN within the following 30 hours.

g. LCO 3.0.4.b is not applicable to diesel generators.

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE in accordance with the Surveillance Frequency Control Program by verifying correct breaker alignments, indicated power availability; and

b. Demonstrated OPERABLE in accordance with the Surveillance Frequency Control Program by transferring (manually and automatically) unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

a. In accordance with the Surveillance Frequency Control Program by:

INSERT ACTION a

a. With one offsite circuit of 3.8.1.1.a inoperable, except as provided in Action f. below:

1. 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.

2. ***Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.***

3. Restore the offsite circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

4. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

INSERT ACTION b

b. With one diesel generator of 3.8.1.1.b inoperable:

1. Demonstrate the OPERABILITY of the A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.

2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.

3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*.

4. Restore the diesel generator to OPERABLE status within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

INSERT ACTION c

---*NOTE*---

Enter applicable ACTIONs of LCO 3.8.3.1, A.C. Distribution - Operating," when ACTION c is entered with no AC power to any train.

---

c. With one offsite A.C. circuit and one diesel generator inoperable:

1. Demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within one hour and at least once per 8 hours thereafter.

2. Additionally, within 4 hours from the discovery of concurrent inoperability of required redundant feature(s) (including the steam driven auxiliary feed pump in MODE 1, 2, and 3), declare required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.

3. If the EDG became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE EDG by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours unless it can be confirmed that the cause of the inoperable EDG does not exist on the remaining EDG*.

4. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

5. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

6. Restore the other A.C. power source (offsite circuit or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 ACTION Statement a or b, as appropriate, with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable A.C. power source.

INSERT ACTION d

d. With two of the required offsite A.C. circuits inoperable:

1. ***Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable.***

2. Restore one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours.

3. Following restoration of one offsite source, follow ACTION Statement a. with the time requirement of that ACTION Statement based on the time of the initial loss of the remaining inoperable offsite A.C. circuit.

ELECTRICAL POWER SYSTEMS

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

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

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. One diesel generator with:

1. Two engine-mounted fuel tanks containing a minimum volume of 238 gallons of fuel,

2. A fuel storage system containing a minimum volume of 42,500 gallons of fuel, and

3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, movement of irradiated fuel, or crane operation with loads over the fuel storage pool, and within 8 hours, depressurize and vent the Reactor Coolant System through a greater than or equal to 3.58 square inch vent. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.8.1.2.1 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 (except for requirement 4.8.1.1.2a.5).

.....NOTE.....
Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution - Shutdown," with one required train de-energized as a result of inoperable offsite circuit.
.....

No changes; this page for information only.

3/4.8.3 ONSITE POWER DISTRIBUTION

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following electrical busses shall be energized in the specified manner with both tie breakers open between redundant busses and between St. Lucie Unit 1 and Unit 2.

a. Train A A.C. Emergency Busses consisting of:

1.	4160 volt Emergency Bus	# 2A3
2.	480 volt Emergency Bus	# 2A2
3.	480 volt Emergency Bus	# 2A5
4.	480 volt MCC Emergency Bus	# 2A5
5.	480 volt MCC Emergency Bus	# 2A6
6.	480 volt MCC Emergency Bus	# 2A7
7.	480 volt MCC Emergency Bus	# 2A8
8.	480 volt MCC Emergency Bus	# 2A9

b. Train B A.C. Emergency Busses consisting of:

1.	4160 volt Emergency Bus	# 2B3
2.	480 volt Emergency Bus	# 2B2
3.	480 volt Emergency Bus	# 2B5
4.	480 volt MCC Emergency Bus	# 2B5
5.	480 volt MCC Emergency Bus	# 2B6
6.	480 volt MCC Emergency Bus	# 2B7
7.	480 volt MCC Emergency Bus	# 2B8
8.	480 volt MCC Emergency Bus	# 2B9

c. 120 volt A.C. Instrument Bus # 2MA energized from its associated inverter connected to D.C. Bus # 2A*.

d. 120 volt A.C. Instrument Bus # 2MB energized from its associated inverter connected to D.C. Bus # 2B*.

e. 120 volt A.C. Instrument Bus # 2MC energized from its associated inverter connected to D.C. Bus # 2A*.

f. 120 volt A.C. Instrument Bus # 2MD energized from its associated inverter connected to D.C. Bus # 2B*.

g. 125 volt D.C. Bus # 2A energized from Battery Bank # 2A.

h. 125 volt D.C. Bus # 2B energized from Battery Bank # 2B.

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

---

* Two inverters may be disconnected from their D.C. Bus for up to 24 hours, as necessary, for the purpose of performing an equalizing charge on their associated battery bank provided (1) their vital busses are energized, and (2) the vital busses associated with the other battery bank are energized from their associated inverters and connected to their associated D.C. Bus.

ACTION:

a. With one of the required trains of A.C. Emergency busses not fully energized, re-energize the train within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one A.C. Instrument Bus either not energized from its associated inverter, or with the inverter not connected to its associated D.C. Bus: (1) re-energize the A.C. Instrument Bus within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours and (2) re-energize the A.C. Instrument Bus from its associated inverter connected to its associated D.C. Bus within 24 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN.

c. With one D.C. Bus not energized from its associated Battery Bank, re-energize the D.C. Bus from its associated Battery Bank within 2 hours 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 in accordance with the Surveillance Frequency Control Program by verifying correct breaker alignment and indicated voltage on the busses.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.8.2.1, "D.C. Sources - Operating," for DC trains made inoperable by inoperable AC distribution system.
.....

q. Surveillance Frequency Control Program

This program provides controls for Surveillance Frequencies. The program shall ensure that Surveillance Requirements specified in the Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operation are met.

a. The Surveillance Frequency Control Program shall contain a list of frequencies of those Surveillance Requirements for which the frequency is controlled by the program.

b. Changes to the frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.

c. The provisions of Surveillance Requirements 4.0.2 and 4.0.3 are applicable to the frequencies established in the Surveillance Frequency Control Program.

INSERT SFDP

r. Component Cyclic or Transient Limit Program

The Program provides controls to track the FSAR, Section 3.9, cyclic and transient occurrences to ensure that components are maintained within the design limits.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the NRC.

STARTUP REPORT

6.9.1.1 A summary report of plant startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier; and (4) modifications that may have significantly altered the nuclear, thermal or hydraulic performance of the plant.

6.9.1.2 The startup report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

INSERT SFDP

s. Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONs. This program implements the requirements of LCO 3.0.6. The SFDP shall contain the following:

a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,

b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,

c. Provisions to ensure that an inoperable supported system's completion time is not inappropriately extended as a result of multiple support system inoperabilities, and

d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or

b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or

c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONs of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONs to enter are those of the support system.

Seabrook Proposed Technical Specification Changes (Mark-Up)

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

SBK INSERT APPLICABILITY

~~3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met, except as provided in Specification 3.0.5.~~

~~3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals, except as provided in Specification 3.0.5. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.~~

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

a. At least HOT STANDBY within the next 6 hours,

b. At least HOT SHUTDOWN within the following 6 hours, and

c. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the action may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODE 5 or 6.

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

a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;

b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual Specifications, or

SBK INSERT APPLICABILITY

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

3.0.2 Upon discovery of a failure to meet an LCO, the ACTIONS shall be met, except as provided in LCO 3.0.5 and LCO 3.0.6. If the LCO is met or is no longer applicable prior to expiration of the specified time interval, completion of the ACTION(S) is not required unless otherwise stated.

APPLICABILITY

LIMITING CONDITION FOR OPERATION

3.0.4 (Continued)

INSERT LCO 3.0.6

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

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

3.0.5 Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to Specifications 3.0.1 and 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the Limiting Condition for Operation. Failure to perform a Surveillance within the specified surveillance interval shall be failure to meet the Limiting Condition for Operation except as provided in Specification 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

4.0.3 If it is discovered that a Surveillance was not performed within its specified surveillance interval, then compliance with the requirement to declare the Limiting Condition for Operation not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified surveillance interval, whichever is greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the Limiting Condition for Operation must immediately be declared not met, and the applicable ACTION(s) must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the Limiting Condition for Operation must immediately be declared not met, and the applicable ACTION(s) must be entered.

INSERT LCO 3.0.6

3.0.6 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.7.6.o, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONs of the LCO in which the loss of safety function exists are required to be entered.

When a support system's ACTION directs a supported system to be declared inoperable or directs entry into the ACTIONs for a supported system, the applicable ACTIONs shall be entered in accordance with LCO 3.0.2.

OPERATIONAL LEAKAGE

3.4.6.2

.....NOTE.....
Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.
.....

ACTION: (Continued)

c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed manual or deactivated automatic valves, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.6.2.1 Reactor Coolant System operational leakages shall be demonstrated to be within each of the above limits by:

a. Not Used

b. Not Used

c. Measurement of the CONTROLLED LEAKAGE to the reactor coolant pump seals when the Reactor Coolant System pressure is 2235 ± 20 psig in accordance with the Surveillance Frequency Control Program with the modulating valve fully open. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4;

d. Performance of a Reactor Coolant System water inventory balance in accordance with the Surveillance Frequency Control Program during steady-state operation, except that not more than 96 hours shall elapse between any two successive inventory balances; (1) (2)

e. Monitoring the Reactor Head Flange Leakoff System in accordance with the Surveillance Frequency Control Program, and

f. Verifying primary to secondary leakage is ≤ 150 gallons per day through any one SG in accordance with the Surveillance Frequency Control Program. (2)

(1) Not applicable to primary to secondary leakage.

(2) Not required to be performed until 12 hours after establishment of steady state operation.

CONTAINMENT SYSTEMS

PRIMARY CONTAINMENT

CONTAINMENT AIR-LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE in accordance with the Containment Leakage Rate Testing Program.

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

ACTION:

a. With one containment air lock door inoperable:

1. Maintain at least the OPERABLE air lock door closed* and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed,

2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days,

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

b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

.....NOTE.....
Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate acceptance criteria.
.....

*Except during entry to repair an inoperable inner door, for a cumulative time not to exceed 1 hour per year.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE*.

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

ACTION:

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

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange; or

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

SURVEILLANCE REQUIREMENTS

----------NOTES----------
1. Enter applicable ACTIONS for system made inoperable by containment isolation valves
2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

4.6.3.1 Not used

4.6.3.2 Each containment isolation valve shall be demonstrated OPERABLE during shutdown in accordance with the Surveillance Frequency Control Program 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 Phase "B" Isolation test signal, each Phase "B" Isolation valve actuates to its isolation position, and

*Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

3/4.7.3 PRIMARY COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3 At least two independent primary component cooling water loops shall be OPERABLE, including one OPERABLE pump in each loop.

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

ACTION:

With one primary component cooling water (PCCW) loop inoperable, restore the required primary component cooling water loop to OPERABLE status within 72 hours 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 two primary component cooling water loops shall be demonstrated OPERABLE:

a. In accordance with the Surveillance Frequency Control Program 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; and

b. In accordance with the Surveillance Frequency Control Program during shutdown, by verifying that each automatic valve servicing safety-related equipment actuates to its correct position on its associated Engineered Safety Feature actuation signal.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for residual heat removal loops made inoperable by PCCW.
.....

3/4.7.4 SERVICE WATER SYSTEM/ULTIMATE HEAT SINK

LIMITING CONDITION FOR OPERATION

3.7.4 The Service Water System shall be OPERABLE with:

a. An OPERABLE service water pumphouse and two service water loops with one OPERABLE service water pump in each loop,

b. An OPERABLE mechanical draft cooling tower and two cooling tower service water loops with one OPERABLE cooling tower service water pump in each loop, and

c. A portable cooling tower makeup system stored in its design operational readiness state.

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

INSERT LCO 3.7.4 NOTES

ACTION:

a. With one service water loop inoperable, return the loop to OPERABLE status within 72 hours, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With one cooling tower service water loop or one cooling tower cell inoperable, return the affected loop or cell to OPERABLE status within 7 days, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With two cooling tower service water loops or the mechanical draft cooling tower inoperable, return at least one loop and the mechanical draft cooling tower to OPERABLE status within 72 hours, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

d. With two loops (except as described in c) or the service water pumphouse inoperable, return at least one of the affected loops and the service water pumphouse to OPERABLE status within 24 hours, or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. With the portable tower makeup pump system not stored in its design operational readiness state, restore the portable tower makeup pump system to its required condition within 72 hours, or continue operation and notify the NRC within the following 8 hours of actions to ensure an adequate supply of makeup water for the service water cooling tower for a minimum of 30 days.

INSERT 3.7.4 NOTES

.....NOTES.....

1. Enter applicable ACTIONS of LCO 3.8.1.1, "AC Sources - Operating," for diesel generator made inoperable by service water.
2. Enter applicable ACTIONS of LCO 3.4.1.3, Reactor Coolant Loops and Coolant Circulation," for residual heat removal loops made inoperable by service water.

.....

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,
and

b. Two separate and independent diesel generators, each with:

1) A separate day fuel tank containing a minimum fuel volume fraction of 3/8 (600 gallons),

2) A separate Fuel Storage System containing a minimum volume of 62,000 gallons of fuel,

3) A separate fuel transfer pump,

4) Lubricating oil storage containing a minimum total volume of 275 gallons of lubricating oil, and

5) Capability to transfer lubricating oil from storage to the diesel generator unit.

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

ACTION:

----------NOTE----------

LCO 3.0.4.b is not applicable to the diesel generators.

---

a. ~~With an offsite circuit of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. source by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least two offsite circuits to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

INSERT 3.8.1 ACTION a

INSERT 3.8.1.1 ACTION a

a. With an offsite circuit of the above required A.C. electrical power sources inoperable:

1. Perform Surveillance Requirement 4.8.1.1.1a for the OPERABLE offsite circuit within 1 hour and at least once per 8 hours thereafter;

2. Within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s), declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable; and

3. Restore at least two offsite circuits to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

NOTE

Enter applicable ACTIONS of LCO 3.8.3.1, Onsite Power Distribution - Operating," when ACTION c is entered with no AC power to any train.

LIMITING CONDITION FOR OPERATION

3.8.1.1 (Continued)

ACTION:

c. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable:

1) Demonstrate the OPERABILITY of the remaining A.C. source by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter. Perform ACTION d. Demonstrate the OPERABILITY of the remaining diesel generator by performing Specification 4.8.1.1.2a.5) within 8 hours.*

2) Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

3) Restore at least two offsite circuits and two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, unless the following condition exists:

(a) The requirement for restoration of the diesel generators to OPERABLE status within 72 hours may be extended to 14 days if the Supplemental emergency Power System (SEPS) is available, as specified in the Bases, and

(b) If at any time the SEPS availability cannot be met, either restore the SEPS to available status within 72 hours (not to exceed 14 days from the time the diesel generator originally became inoperable), or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

* The OPERABILITY of the remaining diesel generator need not be verified if it has been successfully operated within the last 24 hours, or if currently operating, or if the diesel generator became inoperable due to:

1. Preplanned preventive maintenance or testing,

2. An inoperable support system with no potential common mode failure for the remaining diesel generator, or

3. An independently testable component with no potential common mode failure for the remaining diesel generator.

3.8.1.1 (Continued)

ACTION:

d. With one 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 generator as a source of emergency power are also OPERABLE, and
2. When in MODE 1, 2, or 3, the steam-driven emergency feedwater pump is OPERABLE.

If these conditions are not satisfied within 4 hours 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; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

INSERT 3.8.1.1 ACTION e

f. With two of the above required diesel generators inoperable:

1) Demonstrate the OPERABILITY of two offsite A.C. circuits by performing Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter.

2) Restore at least one diesel generator to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours,

3) Restore at least two diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, unless the following condition exists:

(a) The requirement for restoration of the diesel generators to OPERABLE status within 72 hours may be extended to 14 days if the Supplemental Emergency Power System (SEPS) is available, as specified in the Bases, and

(b) If at any time the SEPS availability cannot be met, either restore the SEPS to available status within 72 hours (not to exceed 14 days from the time the diesel generator originally became inoperable), or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

INSERT 3.8.1.1 ACTION e

e. With two of the above required offsite A.C. circuits inoperable

1. ***Within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s), declare required feature(s) inoperable when its redundant required feature(s) is inoperable;***

2. Restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours.

3. With only one offsite source restored, restore at least two offsite circuits to OPERABLE status within 72 hours from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ELECTRICAL POWER SYSTEMS

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

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

a. One circuit between the offsite transmission network and the Onsite Class 1E Distribution System, and

b. One diesel generator with:

1) A day fuel tank containing a minimum fuel volume fraction of 3/8 (600 gallons of fuel),

2) A fuel storage system containing a minimum volume of 60,000 gallons of fuel,

3) A fuel transfer pump, lubricating oil, and

4) Lubricating oil storage containing a minimum total volume of 275 gallons of lubricating oil, and

5) Capability to transfer lubricating oil from storage to the diesel generator unit.

APPLICABILITY: MODES 5 and 6.

ACTION:

----------NOTE----------
Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution - Shutdown," with one required train de-energized as a result of inoperable offsite circuit.

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel, or crane operation with loads over the fuel storage pool, and within 8 hours, depressurize and vent the Reactor Coolant System through a greater than or equal to 1.58-square-inch vent. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the requirements of Specifications 4.8.1.1.1a, 4.8.1.1.2a [except for Specification 4.8.1.1.2a.6] and 4.8.1.1.2 b, c, d, e.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.8.2.1, "DC Sources - Operating," for DC trains made inoperable by inoperable AC power distribution system.
.....

LIMITING CONDITION FOR OPERATION

3.8.3.1 (Continued)

i. Train A, 125-volt D.C. Busses consisting of:

1) 125-volt D.C. Bus #11A energized from Battery Bank 1A* or 1C*, and
2) 125-volt D.C. Bus #11C energized from Battery Bank 1C* or 1A*.

j. Train B, 125-volt D.C. Busses consisting of:

1) 125-volt D.C. Bus #11B energized from Battery Bank 1B* or 1D*, and
2) 125-volt D.C. Bus #11D energized from Battery Bank 1D* or 1B*.

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

ACTION:

a. With one of the required trains of A.C. emergency busses (except 480-volt Emergency Bus # E64) not fully energized, reenergize the train within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

1. With 480-volt Emergency bus #E64 not fully engergized, reenergize the bus within 7 days or be in HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours.

b. With one A.C. vital panel either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) reenergize the A.C. vital panel within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and (2) reenergize the A.C. vital panel from its associated inverter connected to its associated D.C. bus within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one D.C. bus not energized from its associated battery bank, reenergize the D.C. bus from its associated battery bank or close the bus tie to the alternate OPERABLE battery of the same train within 2 hours* or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

PROCEDURES AND PROGRAMS

6.7.6 (Continued)

b. Changes to the Frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.

c. The provisions of Surveillance Requirements 4.0.2 and 4.0.3 are applicable to the Frequencies established in the Surveillance Frequency Control Program.

INSERT SFDP

6.8 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.8.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Regional Administrator of the Regional Office of the NRC unless otherwise noted.

STARTUP REPORT

6.8.1.1 A summary report of station startup and power escalation testing shall be submitted following: (1) receipt of an Operating License, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the station.

The Startup Report shall address each of the tests identified in the Final Safety Analysis Report and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

Startup Reports shall be submitted within: (1) 90 days following completion of the Startup Test Program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of Startup Test Program, and resumption or commencement of commercial operation), supplementary reports shall be submitted at least every 3 months until all three events have been completed.

INSERT SFDP

o. Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONs. This program implements the requirements of LCO 3.0.6. The SFDP shall contain the following:

a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,

b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,

c. Provisions to ensure that an inoperable supported system's completion time is not inappropriately extended as a result of multiple support system inoperabilities, and

d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or

b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or

c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONs of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONs to enter are those of the support system.

Turkey Point Proposed Technical Specification Changes (Mark-Up)

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITIONS FOR OPERATION

~~3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met, except as provided in Specification 3.0.6.~~

~~3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals, except as provided in Specification 3.0.6. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.~~

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit, as applicable, in:

a. At least HOT STANDBY within the next 6 hours,

b. At least HOT SHUTDOWN within the following 6 hours, and

c. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the action may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODES 5 or 6.

3.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Conditions for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements. Exceptions to these requirements are stated in the individual specifications.

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

.

LCO 3.0.2 Upon discovery of a failure to meet an LCO, the ACTIONS shall be met, except as provided in LCO 3.0.6 and LCO 3.0.7. If the LCO is met or is no longer applicable prior to expiration of the specified time interval, completion of the ACTION(S) is not required unless otherwise stated.

3.0.5 Limiting Conditions for Operation including the associated ACTION requirements shall apply to each unit individually unless otherwise indicated as follows:

a. Whenever the Limiting Conditions for Operation refers to systems or components which are shared by both units, the ACTION requirements will apply to both units simultaneously.

b. Whenever the Limiting Conditions for Operation applies to only one unit, this will be identified in the APPLICABILITY section of the specification; and

c. Whenever certain portions of a specification contain operating parameters, Setpoints, etc., which are different for each unit, this will be identified in parentheses, footnotes or body of the requirement.

3.0.6 Equipment removed from service or declared inoperable to comply with ACTION requirements may be returned to service under administrative controls solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.1 and 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

3.0.7 When a supported system LCO is not met solely due to a support system LCO not being met, the ACTIONS associated with this supported system are not required to be entered. Only the support system LCO ACTIONS are required to be entered. This is an exception to LCO 3.0.2 for the supported system. In this event, an evaluation shall be performed in accordance with Specification 6.8.4.n, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

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When a support system's ACTION directs a supported system to be declared inoperable or directs entry into the ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with LCO 3.0.2.

NOTE
Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.

LIMITING CONDITION FOR OPERATION (Continued)

2. The leakage* from the remaining isolating valves in each high pressure line having a valve not meeting the criteria of Table 3.4-1, as listed in Table 3.4-1, shall be determined and recorded daily. The positions of the other valves located in the high pressure line having the leaking valve shall be recorded daily unless they are manual valves located inside containment.

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

d. With any Reactor Coolant System Pressure Isolation Valve leakage greater than 5 gpm, reduce leakage to below 5 gpm within 1 hour, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.6.2.1 Reactor Coolant System operational leakages shall be demonstrated to be within each of the above limits by:

a. Monitoring the containment atmosphere gaseous or particulate radioactivity monitor in accordance with the Surveillance Frequency Control Program.

b. Monitoring the containment sump level in accordance with the Surveillance Frequency Control Program.

c.** Performance of a Reactor Coolant System water inventory balance in accordance with the Surveillance Frequency Control Program***; and

d. Monitoring the Reactor Head Flange Leakoff System in accordance with the Surveillance Frequency Control Program; and

e. Verifying primary-to-secondary leakage is ≤ 150 gallons per day through any one SG in accordance with the Surveillance Frequency Control Program***.

4.4.6.2.2 Each Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated OPERABLE by verifying leakage* to be within its limit:

a. In accordance with the Surveillance Frequency Control Program.

b. Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for 7 days or more and if leakage testing has not been performed in the previous 9 months, and

c. Prior to returning the valve to service following maintenance, repair or replacement work on the valve.

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* To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating valve compliance with the leakage criteria.

** Not applicable to primary-to-secondary leakage.

*** Not required to be performed until 12 hours after establishment of steady state operation.

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE with:

a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, or during the performance of containment air lock surveillance and/or testing requirements, then at least one air lock door shall be closed, and

b. An overall air lock leakage rate in accordance with the Containment Leakage Rate Testing Program.

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

ACTION:

a. With one containment air lock door inoperable:

1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed;

2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days;

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

b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

.....NOTE.....
Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate acceptance criteria.
.....

CONTAINMENT SYSTEMS

3/4.6.4 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.4 Each containment isolation valve shall be OPERABLE with isolation times less than or equal to required isolation times.

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

ACTION:

*With one or more isolation valves inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and either:

a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or

b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic containment isolation valve secured in the isolation position, or

c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or

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

SURVEILLANCE REQUIREMENTS

4.6.4.1 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.

.....NOTES.....
1. Enter applicable ACTIONS for system made inoperable by containment isolation valves.
2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.
.....

~~*CAUTION: The inoperable isolation valve(s) may be part of a system(s). Isolating the affected penetration(s) may affect the use of the system(s). Consider the technical specification requirements on the affected system(s) and act accordingly.~~

PLANT SYSTEMS

3/4.7.2 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.2 The Component Cooling Water System (CCW) shall be OPERABLE with:

a. Three CCW pumps, and

b. Two CCW heat exchangers.

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

ACTION:

a. With only two CCW pumps with independent power supplies OPERABLE, restore the inoperable CCW pump to OPERABLE status within 30 days or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. The provisions of Specification 3.0.4 are not applicable.

b. With only one CCW pump OPERABLE or with two CCW pumps OPERABLE but not from independent power supplies, restore two pumps from independent power supplies to OPERABLE status within 72 hours or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With less than two CCW heat exchangers OPERABLE, restore two heat exchangers to OPERABLE status within 1 hour or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.2 The Component Cooling Water System (CCW) shall be demonstrated OPERABLE:

a. In accordance with the Surveillance Frequency Control Program, by verifying that two heat exchangers and one pump are capable of removing design basis heat loads.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for residual heat removal loops made inoperable by CCW.
.....

.....NOTE.....
1. Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for residual heat removal loops made inoperable by ICW.
.....

PLANT SYSTEMS

3/4.7.3 INTAKE COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3 The Intake Cooling Water System (ICW) shall be OPERABLE with:

a. Three ICW pumps, and
b. Two ICW headers.

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

ACTION:

a. With only two ICW pumps with independent power supplies OPERABLE, restore the inoperable ICW pump to OPERABLE status within 14 days or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. The provisions of Specification 3.0.4 are not applicable.

b. With only one ICW pump OPERABLE or with two ICW pumps OPERABLE but not from independent power supplies, restore two pumps from independent power supplies to OPERABLE status within 72 hours or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With only one ICW header OPERABLE, restore two headers to OPERABLE status within 72 hours or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.3 The Intake Cooling Water System (ICW) shall be demonstrated OPERABLE:

a. In accordance with the Surveillance Frequency Control Program 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; and

b. In accordance with the Surveillance Frequency Control Program during shutdown, by verifying that:

1) Each automatic valve servicing safety-related equipment actuates to its correct position on a SI test signal, and

2) Each Intake Cooling Water System pump starts automatically on a SI test signal.

3) Interlocks required for system operability are OPERABLE.

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

APPLICABILITY: MODES 1, 2, 3, and 4

INSERT ACTION a

ACTION:

~~a. With one of two startup transformers or an associated circuit inoperable, demonstrate the OPERABILITY of the other startup transformer and its associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit is in MODE 1, reduce THERMAL POWER to ≤30% RATED THERMAL POWER within 24 hours, or restore the inoperable startup transformer and associated circuits to OPERABLE status within the next 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If THERMAL POWER is reduced to ≤30% RATED THERMAL POWER within 24 hours or if the inoperable startup transformer is associated with the opposite unit restore the startup transformer and its associated circuits to OPERABLE status within 30 days of the loss of OPERABILITY, or be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit was in MODE 2, 3, or 4 restore the startup transformer and its associated circuits to OPERABLE status within 24 hours or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.~~

INSERT ACTION b

~~b. With one of the required diesel generators inoperable, demonstrate the OPERABILITY of the above required startup transformers and their associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours, unless the absence of any potential common mode failure for the remaining diesel generators is determined. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY. Restore the inoperable diesel generator to OPERABLE status within 14 days** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

INSERT ACTION c

~~c. With one startup transformer and one of the required diesel generators inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a on the remaining~~

** 72 hours if inoperability is associated with Action Statement 3.8.1.1.c.

ACTION (Continued)

~~startup transformer and associated circuits within one hour and at least once per 8 hours thereafter; and if the 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 required diesel generators by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable diesel generator does not exist on the remaining required diesel generators, unless the diesel generators are already operating; restore one of the inoperable sources to OPERABLE status in accordance with Action Statements a and b, as appropriate. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY. Notify the NRC within 4 hours of declaring both a start-up transformer and diesel generator inoperable. Restore the other A.C. power source (startup transformer or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate, with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source.~~

d. With one diesel generator inoperable, in addition to ACTION b. or c. above, verify that:

1. All required systems, subsystems, trains, components, and devices (except safety injection pumps) that depend on the remaining required OPERABLE diesel generators as a source of emergency power are also OPERABLE.

   If this condition is not satisfied within 2 hours, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

2. At least two Safety Injection pumps are OPERABLE and capable of being powered from their associated OPERABLE diesel generators.

   If this condition is not satisfied within 2 hours, be in at least HOT STANDBY within the next 12 hours and in HOT SHUTDOWN within the following 6 hours. This ACTION applies to both units simultaneously.

INSERT ACTION e

~~e. With two of the above required startup transformers or their associated circuits inoperable notify the NRC within 4 hours; restore at least one of the inoperable startup transformers to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours* and in COLD~~

*If the opposite unit is shutdown first, this time can be extended to 42 hours.

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

~~SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously. With only one startup transformer and associated circuits restored, perform Surveillance Requirement 4.8.1.1.1a on the OPERABLE Startup transformer at least once per 8 hours, and restore the other startup transformer and its associated circuits to OPERABLE status or shutdown in accordance with the provisions of Action Statement 3.8.1.1a with time requirements of that Action Statement based on the time of initial loss of a startup transformer. This ACTION applies to both units simultaneously.~~

f. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of two startup transformers and their associated circuits by performing the requirements of Specification 4.8.1.1.1a. within 1 hour and at least once per 8 hours thereafter; restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore all required diesel generators to OPERABLE status within 14 days from time of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

g. Following the addition of the new fuel oil* to the Diesel Fuel Oil Storage Tanks, with one or more diesel generators with new fuel oil properties outside the required Diesel Fuel Oil Testing Program limits, restore the stored fuel oil properties to within the required limits within 30 days.

h. With one or more diesel generators with stored fuel oil total particulates outside the required Diesel Fuel Oil Testing Program limits, restore the fuel oil total particulates to within the required limits within 7 days.

---

* The properties of API Gravity, specific gravity or an absolute specific gravity; kinematic viscosity; clear and bright appearance; and flash point shall be confirmed to be within the Diesel Fuel Oil Testing Program limits, prior to the addition of the new fuel oil to the Diesel Fuel Oil Storage Tanks.

INSERT ACTION a

a. With one of two startup transformers or an associated circuit inoperable:

1. Demonstrate the OPERABILITY of the other startup transformer and its associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.

2. ***Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s).***

3. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit is in MODE 1:

   a) Reduce THERMAL POWER to ≤30% RATED THERMAL POWER within 24 hours, or

   b) Restore the inoperable startup transformer and associated circuits to OPERABLE status within the next 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

4. If THERMAL POWER is reduced to ≤30% RATED THERMAL POWER within 24 hours or if the inoperable startup transformer is associated with the opposite unit, restore the startup transformer and its associated circuits to OPERABLE status within 30 days of the loss of OPERABILITY, or be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours.

5. If the inoperable startup transformer is the associated startup transformer and became inoperable while the unit was in MODE 2, 3, or 4 restore the startup transformer and its associated circuits to OPERABLE status within 24 hours or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.

INSERT ACTION b

b. With one of the required diesel generators inoperable:

1. Demonstrate the OPERABILITY of the above required startup transformers and their associated circuits by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter.

2. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventative maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours, unless the absence of any potential common mode failure for the remaining diesel generators is determined. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY.

3. Restore the inoperable diesel generator to OPERABLE status within 14 days** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

INSERT ACTION c

---*NOTE*---

Enter applicable ACTIONS of LCO 3.8.3.1, "Onsite Power Distribution - Operating," when ACTION c is entered with no AC power source to any train.

---

c. With one startup transformer and one of the required diesel generators inoperable:

1. Notify the NRC within 4 hours of declaring both a start-up transformer and diesel generator inoperable.

2. If the 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 required diesel generators by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable diesel generator does not exist on the remaining required diesel generators, unless the diesel generators are already operating. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY.

3. Restore one of the inoperable sources to OPERABLE status in accordance with Action Statements a and b, as appropriate.

4. Restore the other A.C. power source (startup transformer or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate, with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source.

INSERT ACTION e

e. With two of the above required startup transformers or their associated circuits inoperable:

1. Notify the NRC within 4 hours.

2. ***Declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery of two offsite circuits inoperable concurrent with inoperability of redundant required feature(s)***

3. Restore at least one of the inoperable startup transformers to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours* and in COLD SHUTDOWN within the following 30 hours. This ACTION applies to both units simultaneously.

4. With only one startup transformer and associated circuits restored, perform Surveillance Requirement 4.8.1.1.1a on the OPERABLE Startup transformer at least once per 8 hours, and restore the other startup transformer and its associated circuits to OPERABLE status or shutdown in accordance with the provisions of Action Statement 3.8.1.1a with time requirements of that Action Statement based on the time of initial loss of a startup transformer. This ACTION applies to both units simultaneously.

.....NOTE.....
Enter applicable ACTIONS of LCO 3.8.3.2, "Onsite Power Distribution - Shutdown", with one required train de-energized as a result of inoperable offsite circuit.
.....

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

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

a. One startup transformer and associated circuits, or an alternate circuit, between the offsite transmission network and the 4160 volt bus, A or B, and

b. One diesel generator with:

1) For Unit 3 (3A or 3B)

A skid-mounted fuel tank and a day fuel tank, with an OPERABLE solenoid valve to permit gravity flow from the day tank to the skid mounted tank, with the two tanks together containing a minimum of 2000 gallons of fuel oil

For Unit 4 (4A or 4B)

A day fuel tank containing a minimum volume of 230 gallons of fuel

2) A fuel storage system containing a minimum volume of fuel of 38,000 gallons (Unit 3). 34,700 gallons (Unit 4)**

3) An associated fuel transfer pump**

4) For Unit 3 only, lubricating oil storage containing a minimum volume of 120 gallons of lubricating oil

5) For Unit 3 only capability to transfer lubricating oil from storage to the diesel generator unit and

6) Energized MCC bus (as identified by Specification 3.8.1.1.b.).

APPLICABILITY: MODES 5* and 6*.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of irradiated fuel, or crane operation with loads over the fuel storage pool, and within 8 hours, depressurize and vent the Reactor Coolant System through a greater than or equal to 2.2 square inch vent. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the reactor vessel flange, immediately initiate corrective action to restore the required sources to OPERABLE status as soon as possible and increase RCS inventory as soon as possible.

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* CAUTION - If the opposite unit is in MODES 1. 2. 3, or 4 see Specification 3.8.1.1

** A temporary Class III fuel storage system containing a minimum volume of 38,000 gallons of fuel oil may be used for up to 10 days during the performance of Surveillance Requirement 4.8.1.1.2i.1 for the Unit 3 storage tank while Unit 3 is in Modes 5, 6, or defueled. If the diesel fuel oil storage tank is not returned to service within 10 days, Technical Specification 3.8.1.1 Action b and 3.8.1.2 Action apply to Unit 4 and Unit 3 respectively.

LIMITING CONDITION FOR OPERATION (Continued)

j. 120 Volt AC Vital Panel 3P09 and 3P24 energized from its associated inverter connected to D.C. Bus 4A.****

k. 120 Volt AC Vital Panel 4P09 and 4P24 energized from its associated inverter connected to D.C. Bus 4A.****

l. 125 Volt D.C. Bus 3D01 energized from an associated battery charger and from Battery Bank 3A or spare battery bank D-52,

m. 125 Volt D.C. Bus 3D23 energized from an associated battery charger and from Battery Bank 3B or spare battery bank D-52,

n. 125 Volt D.C. Bus 4D01 energized from an associated battery charger and from Battery Bank 4B or spare battery bank D-52, and

o. 125 Volt D.C. Bus 4D23 energized from an associated battery charger and from Battery Bank 4A or spare battery bank D-52

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

ACTION:

a. With one of the required trains (3.8.3.1a., b., and c) of A.C. emergency busses not fully energized (except for the required LC's and MCC's associated with the opposite unit), reenergize the train within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With any of the required LC's and/or MCC's associated with the opposite unit inoperable, restore the inoperable LC or MCC to OPERABLE status in accordance with Table 3.8-1 or Table 3.8-2 as applicable or place the unit in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With one A.C. vital panel either not energized from its associated inverter, or with the inverter not connected to its associated D.C. bus: (1) Reenergize the A.C. vital panel within 2 hours or be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours; and (2) reenergize the A.C. vital panel from an inverter connected to its associated D.C. bus

Enter applicable ACTIONS of LCO 3.8.2, "D.C. Sources - Operating," for DC trains made inoperable by inoperable AC power distribution subsystems.

****A back-up inverter may be used to replace the normal inverter, provided the normal inverter on the same DC bus for the opposite unit is not replaced at the same time.

PROCEDURES AND PROGRAMS (Continued)

l. Surveillance Frequency Control Program

This program provides controls for Surveillance Frequencies. The program shall ensure that Surveillance Requirements specified in the Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operations are met:

a. The Surveillance Frequency Control Program shall contain a list of frequencies of those Surveillance Requirements for which the frequency is controlled by the program.

b. Changes to the frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, " Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.

c. The provisions of Surveillance Requirements 4.0.2 and 4.0.3 are applicable to the frequencies established in the Surveillance Frequency Control Program.

m. Snubber Testing Program

This program conforms to the examination, testing and service life monitoring for dynamic restraints (snubbers) in accordance with 10 CFR 50.55a inservice inspection (ISI) requirements for supports. The program shall be in accordance with the following:

a. This program shall meet 10 CFR 50.55a(g) ISI requirements for supports.

b. The program shall meet the requirements for ISI of supports set forth in subsequent editions of the Code of Record and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code and the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) that are incorporated by reference in 10 CFR 50.55a(a) subject to the use and conditions on the use of standards listed in 10 CFR 50.55a(b) and subject to Commission approval.

c. The program shall, as required by 10 CFR 50.55a(b)(3)(v), meet Subsection ISTA, "General Requirements" and Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants".

d. The 120-month program updates shall be made in accordance with 10 CFR 50.55a(g)(4), 10 CFR 50.55a(g)(3)(v) and 10 CFR 50.55a(b) (including 10 CFR 50.55a(b)(3)(v)) subject to the conditions listed therein.

INSERT SFDP →

6.8.5 DELETED

INSERT SFDP

n. Safety Function Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.7, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate actions may be taken as a result of the support system inoperability and corresponding exception to entering supported system ACTIONs. This program implements the requirements of LCO 3.0.7. The SFDP shall contain the following:

a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected,

b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists,

c. Provisions to ensure that an inoperable supported system's completion time is not inappropriately extended as a result of multiple support system inoperabilities, and

d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power, or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

a. A required system redundant to the system(s) supported by the inoperable support system is also inoperable, or

b. A required system redundant to the system(s) in turn supported by the inoperable supported system is also inoperable, or

c. A required system redundant to the support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate ACTIONs of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate ACTIONs to enter are those of the support system.

ATTACHMENT 2

Proposed Technical Specification Bases Changes (Mark-Up)

St. Lucie Unit 1 Proposed Technical Specification Bases Changes (Mark-Up)

3/4.0 APPLICABILITY (continued)

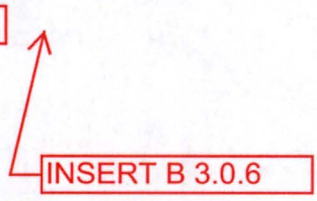
BASES (continued)

3.0.4 (continued)

Upon entry into a MODE or other specified condition in the Applicability with the LCO not met, LCO 3.0.1 and LCO 3.0.2 require entry into the applicable Conditions and Required Actions until the Condition is resolved, until the LCO is met, or until the unit is not within the Applicability of the Technical Specification.

Surveillances do not have to be performed to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 4.0.4 Therefore, utilizing LCO 3.0.4 is not a violation of SR 4.0.1 or SR 4.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

3.0.6



INSERT B 3.0.6

LCO 3.0.6 establishes an exception to LCO 3.0.2 for supported systems that have a support system LCO specified in the Technical Specifications (TS). This exception is provided because LCO 3.0.2 would require that the ACTIONS of the associated inoperable supported system LCO be entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the unit is maintained in a safe condition are specified in the support system LCO's ACTIONS. These ACTIONS may include entering the supported system's ACTIONS or may specify other ACTIONS.

When a support system is inoperable and there is an LCO specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' ACTIONs unless directed to do so by the support system's ACTION. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCOs' ACTION are eliminated by providing all the actions that are necessary to ensure the unit is maintained in a safe condition in the support system's ACTIONs.

However, there are instances where a support system's ACTION may either direct a supported system to be declared inoperable or direct entry into the ACTIONs for the supported system. This may occur immediately or after some specified delay to perform some other ACTION. Regardless of whether it is immediate or after some delay, when a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with Specification 3.0.1.

Specification 6.8.4.r, "Safety Function Determination Program (SFDP)," ensures loss of safety function is detected and appropriate actions are taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system ACTIONs. The SFDP implements the requirements of LCO 3.0.6.

The following examples use Figure B 3.0-1 to illustrate loss of safety function conditions that may result when a TS support system is inoperable. In this figure, the fifteen systems that comprise Train A are independent and redundant to the fifteen systems that comprise Train B. To correctly use the figure to illustrate the SFDP provisions for a cross train check, the figure establishes a relationship between support and supported systems as follows: the figure shows System 1 as a support system for System 2 and System 3; System 2 as a support system for System 4 and System 5; and System 4 as a support system for System 8 and System 9. Specifically, a loss of safety function may exist when a support system is inoperable and:

a. A system redundant to system(s) supported by the inoperable support system is also inoperable (EXAMPLE B 3.0.6-1),

b. A system redundant to system(s) in turn supported by the inoperable supported system is also inoperable (EXAMPLE B 3.0.6-2), or
c. A system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable (EXAMPLE B 3.0.6-3).

For the following examples, refer to Figure B 3.0-1.

EXAMPLE B 3.0.6-1

If System 2 of Train A is inoperable and System 5 of Train B is inoperable, a loss of safety function exists in Systems 5, 10, and 11.

EXAMPLE B 3.0.6-2

If System 2 of Train A is inoperable, and System 11 of Train B is inoperable, a loss of safety function exists in System 11.

EXAMPLE B 3.0.6-3

If System 2 of Train A is inoperable, and System 1 of Train B is inoperable, a loss of safety function exists in Systems 2, 4, 5, 8, 9, 10 and 11.

If an evaluation determines that a loss of safety function exists, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

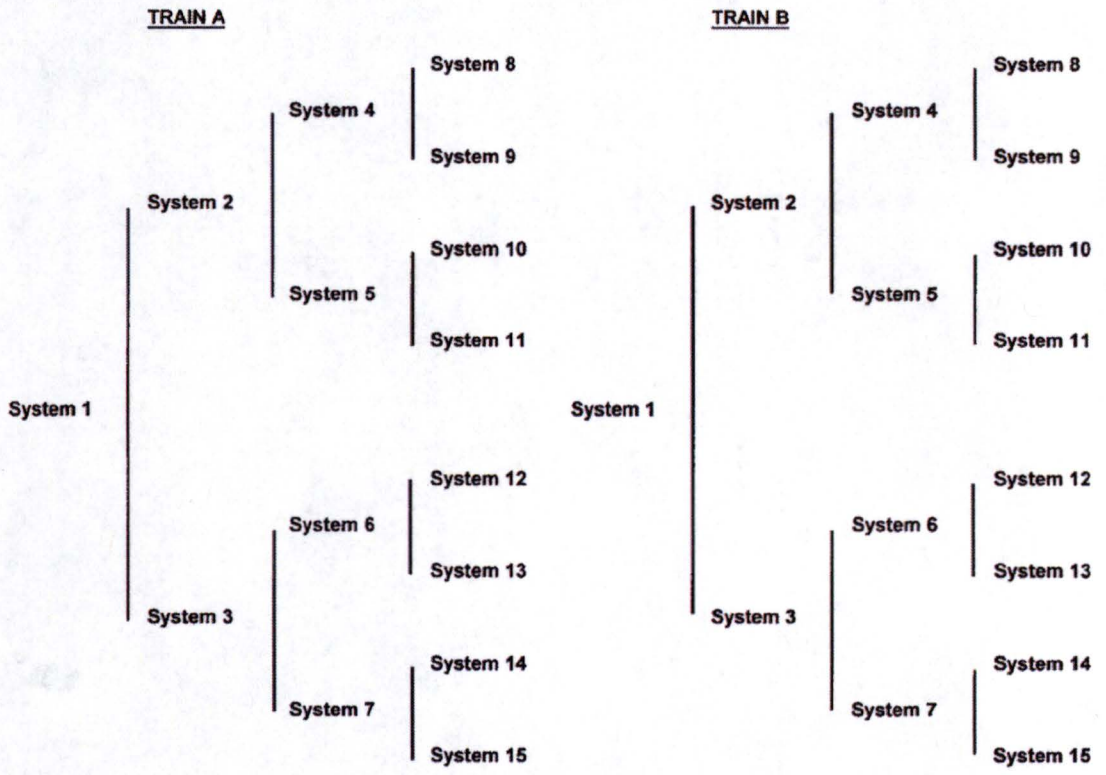


Figure B 3.0-1
Configuration of Trains and Systems

This loss of safety function does not require the assumption of additional single failures or loss of offsite power. Since operations are being restricted in accordance with the ACTIONS of the support system, any resulting temporary loss of redundancy or single failure protection is taken into account. Similarly, the ACTIONS for inoperable offsite circuit(s) and inoperable diesel generator(s) provide the necessary restriction for cross train inoperabilities. This explicit cross train verification for inoperable AC electrical power sources also acknowledges that supported system(s) are not declared inoperable solely as a result of inoperability of a normal or emergency electrical power source (refer to the definition of OPERABILITY).

When loss of safety function is determined to exist, and the SFDP requires entry into the appropriate ACTIONS of the LCO in which the loss of safety function exists, consideration must be given to the specific type of function affected. Where a loss of function is solely due to a single TS support system (e.g., loss of automatic start due to inoperable instrumentation, or loss of pump suction source due to low tank level), the appropriate LCO is the LCO for the support system. The ACTIONS for a support system LCO adequately address the inoperabilities of that system without reliance on entering its supported system LCO. When the loss of function is the result of multiple support systems, the appropriate LCO is the LCO for the supported system.

3/4.4 REACTOR COOLANT SYSTEM (continued)

BASES (continued)

3/4.4.6.2 REACTOR COOLANT SYSTEM OPERATIONAL LEAKAGE (continued)

c. The leakage from any RCS Pressure Isolation Valve is sufficiently low to ensure early detection of possible in-series valve failure. It is apparent that when pressure isolation is provided by two in-series valves and when failure of one valve in the pair can go undetected for a substantial length of time, verification of valve integrity is required. With one or more RCS Pressure Isolation Valves with leakage greater than that allowed by Specification 3.4.6.2.e, within 4 hours, at least two valves, including check valves, in each high pressure line having a non-functional valve must be closed and remain closed to isolate the affected line(s). In addition, the ACTION statement for the affected system must be followed and the leakage from the remaining Pressure Isolation Valves in each high pressure line having a valve not meeting the criteria of Table 3.4.6-1 shall be recorded daily. If these requirements are not met, the reactor must be brought to at least HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours.

The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. In COLD SHUTDOWN, the pressure stresses acting on the Reactor Coolant Pressure Boundary are much lower, and further deterioration is much less likely.

Surveillance Requirements

4.4.6.2

Verifying Reactor Coolant System leakage to be within the LCO limits ensures the integrity of the Reactor Coolant Pressure Boundary is maintained. PRESSURE BOUNDARY LEAKAGE would at first appear as UNIDENTIFIED LEAKAGE and can only be positively identified by inspection. It should be noted that leakage past seals and gaskets is not PRESSURE BOUNDARY LEAKAGE. UNIDENTIFIED LEAKAGE and IDENTIFIED LEAKAGE are determined by performance or a Reactor Coolant System water inventory balance.

The ACTION is modified by a note that requires an evaluation of affected systems if a pressure isolation valve is inoperable. The leakage may have affected system operability or isolation of a leaking flow path with an alternate valve may have degraded the ability of the interconnected system to perform its safety function.

3/4.6 CONTAINMENT SYSTEMS (continued)

BASES (continued)

3/4.6.1 CONTAINMENT VESSEL (continued)

3/4.6.1.3 CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on CONTAINMENT INTEGRITY and containment leak rate. Surveillance testing of the air lock seals provides assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

If the inoperable containment air lock cannot be restored to OPERABLE status in accordance with the ACTIONs, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least HOT STANDBY within 6 hours and to HOT SHUTDOWN within the following 6 hours. Remaining within the Applicability of the LCO is acceptable because the plant risk in HOT SHUTDOWN is similar to or lower than COLD SHUTDOWN (reference CE NPSD-1186-A, Technical Justification for the Risk Informed Modification to Selected Required Action End States for CEOG PWRs, October 2001). In HOT SHUTDOWN there are more accident mitigation systems available and there is more redundancy and diversity in core heat removal mechanisms than in COLD SHUTDOWN. However, voluntary entry into COLD SHUTDOWN may be made as it is also an acceptable low-risk state. These ACTIONs are modified by a Note that states that LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. This Note prohibits the use of LCO 3.0.4.a to enter HOT SHUTDOWN during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering HOT SHUTDOWN, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

The ACTIONS are modified by a Note that requires entry into the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage limit.

3/4.6 CONTAINMENT SYSTEMS (continued)

BASES (continued)

3/4.6.3 CONTAINMENT ISOLATION VALVES (continued)

With ACTION a. or b. or c. not met, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least HOT STANDBY within 6 hours and to HOT SHUTDOWN within the following 6 hours. Remaining within the Applicability of the LCO is acceptable because the plant risk in HOT SHUTDOWN is similar to or lower than COLD SHUTDOWN (reference CE NPSD-1186-A, Technical Justification for the Risk Informed Modification to Selected Required Action End States for CEOG PWRs, October 2001). In HOT SHUTDOWN there are more accident mitigation systems available and there is more redundancy and diversity in core heat removal mechanisms than in COLD SHUTDOWN. However, voluntary entry into COLD SHUTDOWN may be made as it is also an acceptable low-risk state. These ACTIONs are modified by a Note that states that LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. This Note prohibits the use of LCO 3.0.4.a to enter HOT SHUTDOWN during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering HOT SHUTDOWN, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

The ACTIONS are modified by Note 1, which ensures that appropriate remedial actions are taken as necessary if the affected systems are rendered inoperable by an inoperable containment isolation valve. Note 2 requires entry into the ACTION of LCO 3.6.1.2, "Containment Leakage," when leakage results in exceeding the overall containment leakage limit.

3/4.7 PLANT SYSTEMS (continued)

BASES (continued)

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

The limitation on steam generator pressure and temperature ensures that the pressure induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits. The limitations of 70°F and 200-psig are based on a steam generator RT_{NDT} of 50°F and are sufficient to prevent brittle fracture.

3/4.7.3 COMPONENT COOLING WATER SYSTEM

The OPERABILITY of the component cooling water system ensures that sufficient cooling capacity is available for continued operation of vital components and Engineered Safety Feature equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the accident.

If the inoperable component cooling water loop cannot be restored to an OPERABLE status within the allowable outage time, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least HOT STANDBY within 6 hours and to HOT SHUTDOWN within the following 6 hours. Remaining within the Applicability of the LCO is acceptable because the plant risk in HOT SHUTDOWN is similar to or lower than COLD SHUTDOWN (reference CE NPSD-1186-A, Technical Justification for the Risk Informed Modification to Selected Required Action End States for CEOG PWRs, October 2001). In HOT SHUTDOWN there are more accident mitigation systems available and there is more redundancy and diversity in core heat removal mechanisms than in COLD SHUTDOWN. However, voluntary entry into COLD SHUTDOWN may be made as it is also an acceptable low-risk state. These ACTIONs are modified by a Note that states that LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. This Note prohibits the use of LCO 3.0.4.a to enter HOT SHUTDOWN during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering HOT SHUTDOWN, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

The ACTION is modified by a Note that requires entry into the applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for SDC made inoperable by CCW. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

3/4.7 PLANT SYSTEMS (continued)

BASES (continued)

3/4.7.4 INTAKE COOLING WATER SYSTEM

The OPERABILITY of the intake cooling water system ensures that sufficient cooling capacity is available for continued operation of vital components and Engineered Safety Feature equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the accident analyses.

If the inoperable intake cooling water loop cannot be restored to an OPERABLE status within the allowable outage time, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least HOT STANDBY within 6 hours and to HOT SHUTDOWN within the following 6 hours. Remaining within the Applicability of the LCO is acceptable because the plant risk in HOT SHUTDOWN is similar to or lower than COLD SHUTDOWN (reference CE NPSD-1186-A, Technical Justification for the Risk Informed Modification to Selected Required Action End States for CEOG PWRs, October 2001). In HOT SHUTDOWN there are more accident mitigation systems available and there is more redundancy and diversity in core heat removal mechanisms than in COLD SHUTDOWN. However, voluntary entry into COLD SHUTDOWN may be made as it is also an acceptable low-risk state. These ACTIONs are modified by a Note that states that LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. This Note prohibits the use of LCO 3.0.4.a to enter HOT SHUTDOWN during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering HOT SHUTDOWN, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

The ACTION is modified by a Note that requires entry into the applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for SDC made inoperable by ICW. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

BASES FOR SECTION 3/4.8

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

The OPERABILITY of A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

INSERT 3.8.1.1.a

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least one of each of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source. When one diesel generator is inoperable, there is an additional requirement to check that all required systems, subsystems, trains, components and devices (i.e., redundant features) that depend on the remaining OPERABLE diesel generator as a source of emergency power, are also OPERABLE, and that the steam-driven auxiliary feedwater pump is OPERABLE. These redundant required features are those that are assumed to function to mitigate an accident, coincident with a loss of offsite power, in the safety analysis, such as the emergency core cooling system and auxiliary feedwater system. Upon discovery of a concurrent inoperability of required redundant features the feature supported by the inoperable EDG is declared inoperable. Thus plant operators will be directed to supported feature TS action requirements for appropriate remedial actions for the inoperable required features.

The four hour completion time upon discovery that an opposite train required feature is inoperable is to provide assurance that a loss of offsite power, during the period that a EDG is inoperable, does not result in a complete loss of safety function of critical redundant required features. The four hour completion time allows the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." The four hour completion time only begins on discovery that both an inoperable EDG exists and a required feature on the other train is inoperable.

INSERT B 3.8.1.1.a

ACTION a.2, which only applies if the train cannot be powered from an offsite source, is intended to provide assurance that an event coincident with a single failure of the associated DG will not result in a complete loss of safety function of critical redundant required features. These features are powered from the redundant AC electrical power train. The turbine driven AFW pump is considered a redundant required feature because the design is such that the remaining operable motor driven AFW pumps are not by themselves capable (without any reliance on the motor driven AFW pump powered by the emergency bus associated with the inoperable diesel generator) of providing 100% of the AFW assumed in the safety analysis.

The completion time (also referred to as allowed outage time (AOT)) for ACTION a.2 is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the completion time "clock." In this ACTION, the completion time only begins on discovery that both:

a. The train has no offsite power supplying it loads and

b. A required feature on the other train is inoperable.

If at any time while one offsite circuit is inoperable a redundant required feature subsequently becomes inoperable, this completion time begins to be tracked. Discovering no offsite power to one train of the onsite Class 1E Electrical Power Distribution System coincident with one or more inoperable required support or supported features, or both, that are associated with the other train that has offsite power, results in starting the completion time for the ACTION. Twenty-four hours is acceptable because it minimizes risk while allowing time for restoration before subjecting the unit to transients associated with shutdown.

The remaining OPERABLE offsite circuit and DGs are adequate to supply electrical power to Train A and Train B of the onsite Class 1E Distribution System. The 24-hour completion time takes into account the component OPERABILITY of the redundant counterpart to the inoperable required feature. Additionally, the 24-hour completion time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.¶

3/4.8 ELECTRICAL POWER SYSTEMS (continued)

BASES (continued)

TS 3.8.1.1, ACTION "b" provides an allowed outage/action completion time (AOT) of up to 14 days toto restore a single inoperable diesel generator to operable status. This AOT is based on the findings of a deterministic and probabilistic safety analysis and is referred to as a "risk-informed" AOT. Entry into this action requires that a risk assessment be performed in accordance with the Configuration Risk Management Program (CRMP), which is described in the Administrative Procedure that implements the Maintenance Rule pursuant to 10 CFR 50.65.

INSERT B.3.8.1.1.c

INSERT B.3.8.1.1.d

All EDG inoperabilities must be investigated for common-cause failures regardless of how long the EDG inoperability persists. When one diesel generator is inoperable, required ACTIONS 3.8.1.1.b and 3.8.1.1.c provide an allowance to avoid unnecessary testing of EDGs. If it can be determined that the cause of the inoperable EDG does not exist on the remaining OPERABLE EDG, then SR 4.8.1.1.2.a.4 does not have to be performed. Eight (8) hours is reasonable to confirm that the OPERABLE EDG is not affected by the same problem as the inoperable EDG. If it cannot otherwise be determined that the cause of the initial inoperable EDG does not exist on the remaining EDG, then satisfactory performance of SR 4.8.1.1.2.a.4 suffices to provide assurance of continued OPERABILITY of that EDG. If the cause of the initial inoperability exists on the remaining OPERABLE EDG, that EDG would also be declared inoperable upon discovery, and ACTION 3.8.1.1.e would be entered. Once the failure is repaired (on either EDG), the common-cause failure no longer exists.

Action g prohibits the application of LCO 3.0.4.b to an inoperable diesel generator. There is an increased risk associated with entering a MODE or other specified condition in the Applicability with an inoperable diesel generator and the provisions of LCO 3.0.4.b, which allow entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, should not be applied in this circumstance.

Ambient conditions are the normal standby conditions for the diesel engines. Any normally running warmup systems should be in service and operating, and manufacturer's recommendations for engine oil and water temperatures and other parameters should be followed.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that 1) the facility can be maintained in the shutdown or refueling condition for extended time periods and 2) sufficient instrumentation and control capability is available for monitoring and maintaining the facility status.

INSERT B 3.8.1.2. SD

INSERT B 3.8.1.1.c

Pursuant to LCO 3.0.6, the Distribution System ACTIONS would not be entered even if all AC sources to it were inoperable, resulting in de-energization. Therefore, ACTION c is modified by a note to indicate that when ACTION c is entered with no AC source to any train, the ACTIONs for LCO 3.8.2.1, "A.C. Distribution - Operating," must be immediately entered. This allows ACTION c to provide requirements for the loss of one offsite circuit and one DG, without regard to whether a train is de-energized. LCO 3.8.2.1 provides the appropriate restrictions for a de-energized train.

INSERT B 3.8.1.1.d

ACTION d.1, which applies when two offsite circuits are inoperable, is intended to provide assurance that an event with a coincident single failure will not result in a complete loss of redundant required safety functions. The completion time for this failure of redundant required features is reduced to 12 hours from that allowed for one train without offsite power (ACTION a.2). The rationale for the reduction to 12 hours is that Regulatory Guide 1.93 allows a completion time of 24 hours for two required offsite circuits inoperable, based upon the assumption that two complete safety trains are OPERABLE. When a concurrent redundant required feature failure exists, this assumption is not the case, and a shorter completion time of 12 hours is appropriate. These features are powered from redundant AC safety trains. This includes motor driven auxiliary feedwater pumps. Single train features, such as turbine driven auxiliary pumps, are not included in the list.

The completion time for ACTION d.1 is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." In this ACTION, the completion time only begins on discovery that both:

a. All required offsite circuits are inoperable and

b. A required feature is inoperable.

If at any time while two offsite circuits are inoperable a required feature becomes inoperable, this completion time begins to be tracked.

INSERT B 3.8.1.2 SD

Pursuant to LCO 3.0.6, the A.C. Distribution ACTION would not be entered even if all AC sources to it were inoperable, resulting in de-energization. Therefore, the ACTION in LCO 3.8.1.2, "Electrical Power Systems – Shutdown," is modified by a Note to indicate that when the ACTION is entered with no AC power to any required ESF bus, the ACTIONS of LCO 3.8.2.2 must be immediately entered. This Note allows the ACTION in LCO 3.8.1.2 to provide requirements for the loss of the offsite circuit, whether or not a train is de-energized. LCO 3.8.2.2 would provide the appropriate restrictions for the situation involving a de-energized train.

3/4.8 ELECTRICAL POWER SYSTEMS (continued)

BASES (continued)

If the inoperable A.C. power source or D.C. power source cannot be restored to an OPERABLE status within the allowable outage time, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least HOT STANDBY within 6 hours and to HOT SHUTDOWN within the following 6 hours. Remaining within the Applicability of the LCO is acceptable because the plant risk in HOT SHUTDOWN is similar to or lower than COLD SHUTDOWN (reference CE NPSD-1186-A, Technical Justification for the Risk Informed Modification to Selected Required Action End States for CEOG PWRs, October 2001). In HOT SHUTDOWN there are more accident mitigation systems available and there is more redundancy and diversity in core heat removal mechanisms than in COLD SHUTDOWN. However, voluntary entry into COLD SHUTDOWN may be made as it is also an acceptable low-risk state. These ACTIONs are modified by a Note that states that LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. This Note prohibits the use of LCO 3.0.4.a to enter HOT SHUTDOWN during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering HOT SHUTDOWN, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

INSERT B 3.8.2.1 →

The Surveillance Requirements for demonstrating the OPERABILTY of the DC system battery cell interconnection resistances are based on criteria recommended by the manufacturer. The table contained in TSSR 4.8.2.3.2.c.3 is provided to define the maximum individual and maximum average allowable values for battery cell interconnection resistances. The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

The Surveillance Requirements for demonstrating the OPERABILTY of the DC system battery cell interconnection resistances are based on criteria recommended by the manufacturer. The table contained in TSSR 4.8.2.3.2.c.3 is provided to define the maximum individual and maximum average allowable values for battery cell interconnection resistances. The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

INSERT B 3.8.2.1

The ACTION in LCO 3.8.2.1, "A.C. Distribution – Operating," is modified by a Note that requires the applicable ACTIONS of LCO 3.8.2.3, "DC Distribution - Operating," to be entered for DC trains made inoperable by inoperable power distribution subsystems. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components. Inoperability of a distribution system can result in loss of charging power to batteries and eventual loss of DC power. This Note ensures that the appropriate attention is given to restoring charging power to batteries, if necessary, after loss of distribution systems

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3/4.0 APPLICABILITY (continued)

BASES (continued)

3.0.4 (continued)

Upon entry into a MODE or other specified condition in the Applicability with the LCO not met, LCO 3.0.1 and LCO 3.0.2 require entry into the applicable Conditions and Required Actions until the Condition is resolved, until the LCO is met, or until the unit is not within the Applicability of the Technical Specification.

Surveillances do not have to be performed to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 4.0.4 Therefore, utilizing LCO 3.0.4 is not a violation of SR 4.0.1 or SR 4.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

3.0.6

INSERT B 3.0.6

INSERT B 3.0.6

LCO 3.0.6 establishes an exception to LCO 3.0.2 for supported systems that have a support system LCO specified in the Technical Specifications (TS). This exception is provided because LCO 3.0.2 would require that the ACTIONS of the associated inoperable supported system LCO be entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the unit is maintained in a safe condition are specified in the support system LCO's ACTIONS. These ACTIONS may include entering the supported system's ACTIONS or may specify other ACTIONS.

When a support system is inoperable and there is an LCO specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' ACTIONs unless directed to do so by the support system's ACTION. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCOs' ACTION are eliminated by providing all the actions that are necessary to ensure the unit is maintained in a safe condition in the support system's ACTIONs.

However, there are instances where a support system's ACTION may either direct a supported system to be declared inoperable or direct entry into the ACTIONs for the supported system. This may occur immediately or after some specified delay to perform some other ACTION. Regardless of whether it is immediate or after some delay, when a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with Specification 3.0.1.

Specification 6.8.4.s, "Safety Function Determination Program (SFDP)," ensures loss of safety function is detected and appropriate actions are taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system ACTIONs. The SFDP implements the requirements of LCO 3.0.6.

The following examples use Figure B 3.0-1 to illustrate loss of safety function conditions that may result when a TS support system is inoperable. In this figure, the fifteen systems that comprise Train A are independent and redundant to the fifteen systems that comprise Train B. To correctly use the figure to illustrate the SFDP provisions for a cross train check, the figure establishes a relationship between support and supported systems as follows: the figure shows System 1 as a support system for System 2 and System 3; System 2 as a support system for System 4 and System 5; and System 4 as a support system for System 8 and System 9. Specifically, a loss of safety function may exist when a support system is inoperable and:

a. A system redundant to system(s) supported by the inoperable support system is also inoperable (EXAMPLE B 3.0.6-1),

b. A system redundant to system(s) in turn supported by the inoperable supported system is also inoperable (EXAMPLE B 3.0.6-2), or
c. A system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable (EXAMPLE B 3.0.6-3).

For the following examples, refer to Figure B 3.0-1.

EXAMPLE B 3.0.6-1

If System 2 of Train A is inoperable and System 5 of Train B is inoperable, a loss of safety function exists in Systems 5, 10, and 11.

EXAMPLE B 3.0.6-2

If System 2 of Train A is inoperable, and System 11 of Train B is inoperable, a loss of safety function exists in System 11.

EXAMPLE B 3.0.6-3

If System 2 of Train A is inoperable, and System 1 of Train B is inoperable, a loss of safety function exists in Systems 2, 4, 5, 8, 9, 10 and 11.

If an evaluation determines that a loss of safety function exists, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

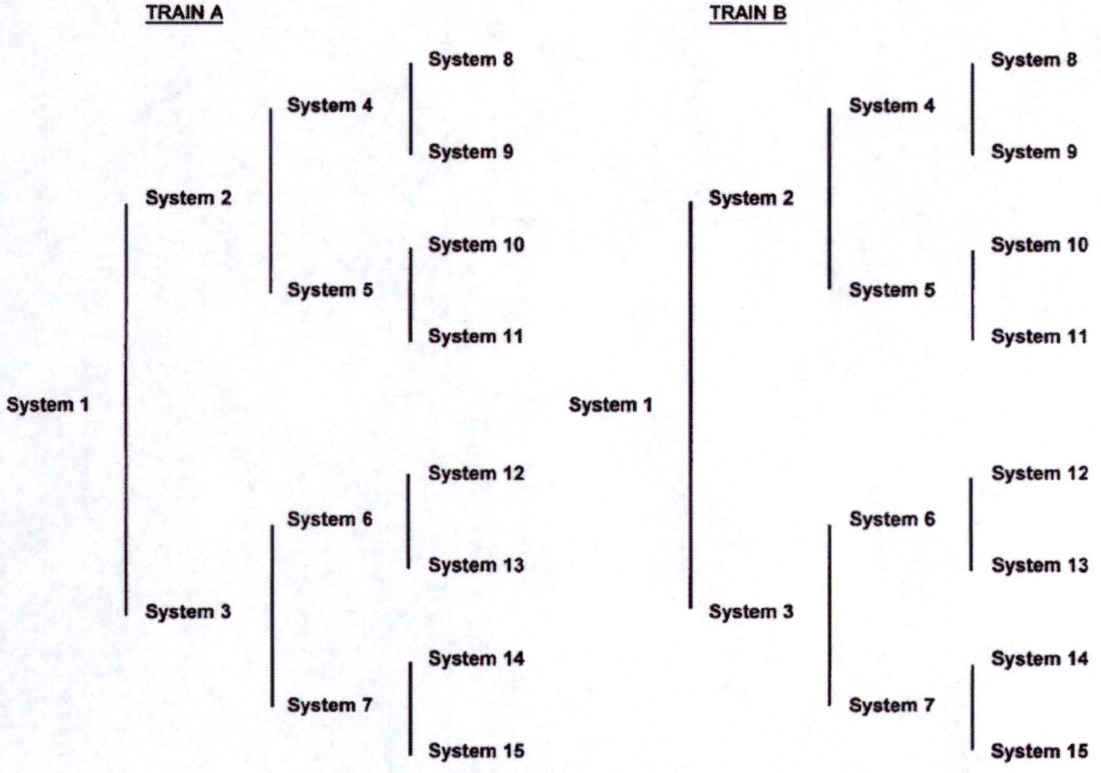

Figure B 3.0-1
Configuration of Trains and Systems

This loss of safety function does not require the assumption of additional single failures or loss of offsite power. Since operations are being restricted in accordance with the ACTIONS of the support system, any resulting temporary loss of redundancy or single failure protection is taken into account. Similarly, the ACTIONS for inoperable offsite circuit(s) and inoperable diesel generator(s) provide the necessary restriction for cross train inoperabilities. This explicit cross train verification for inoperable AC electrical power sources also acknowledges that supported system(s) are not declared inoperable solely as a result of inoperability of a normal or emergency electrical power source (refer to the definition of OPERABILITY).

When loss of safety function is determined to exist, and the SFDP requires entry into the appropriate ACTIONS of the LCO in which the loss of safety function exists, consideration must be given to the specific type of function affected. Where a loss of function is solely due to a single TS support system (e.g., loss of automatic start due to inoperable instrumentation, or loss of pump suction source due to low tank level), the appropriate LCO is the LCO for the support system. The ACTIONS for a support system LCO adequately address the inoperabilities of that system without reliance on entering its supported system LCO. When the loss of function is the result of multiple support systems, the appropriate LCO is the LCO for the supported system.

3/4.4 REACTOR COOLANT SYSTEM (continued)

BASES (continued)

3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE (continued)

3/4.4.6.2 OPERATIONAL LEAKAGE (continued)

ACTIONS (continued)

b.

UNIDENTIFIED LEAKAGE or IDENTIFIED LEAKAGE is excess of the LCO limits must be reduced to within the limits within 4 hours. This allows time to verify leakage rates and either identify UNIDENTIFIED LEAKAGE or reduce leakage to within limits before the reactor must be shut down. Otherwise, the reactor must be brought to HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours. This ACTION is necessary to prevent further deterioration of the Reactor Coolant Pressure Boundary.

c.

The leakage from any RCS Pressure Isolation Valve is sufficiently low to ensure early detection of possible in-series valve failure. It is apparent that when pressure isolation is provided by two manual or deactivated automatic valves and when failure of one valve in the pair can go undetected for a substantial length of time, verification of valve integrity is required. With one or more RCS Pressure Isolation Valves with leakage greater than that allowed by Specification 3.4.6.2.e, within 4 hours, at least two valves in each high pressure line having a non-functional valve must be closed and remain closed to isolate the affected line(s). In addition, the ACTION statement for the affected system must be followed and the leakage from the remaining Pressure Isolation Valves in each high pressure line having a valve not meeting the criteria of Table 3.4-1 shall be recorded daily. If these requirements are not met, the reactor must be brought to at least HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours.

The ACTION is modified by a note that requires an evaluation of affected systems if a pressure isolation valve is inoperable. The leakage may have affected system operability or isolation of a leaking flow path with an alternate valve may have degraded the ability of the interconnected system to perform its safety function.

3/4.6 CONTAINMENT SYSTEMS (continued)

BASES (continued)

3/4.6.1 PRIMARY CONTAINMENT (continued)

3/4.6.1.3 CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on CONTAINMENT INTEGRITY and containment leak rate. Surveillance testing of the air lock seals provides assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

If the inoperable containment air lock cannot be restored to OPERABLE status in accordance with the ACTIONs, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least HOT STANDBY within 6 hours and to HOT SHUTDOWN within the following 6 hours. Remaining within the Applicability of the LCO is acceptable because the plant risk in HOT SHUTDOWN is similar to or lower than COLD SHUTDOWN (reference CE NPSD-1186-A, Technical Justification for the Risk Informed Modification to Selected Required Action End States for CEOG PWRs, October 2001). In HOT SHUTDOWN there are more accident mitigation systems available and there is more redundancy and diversity in core heat removal mechanisms than in COLD SHUTDOWN. However, voluntary entry into COLD SHUTDOWN may be made as it is also an acceptable low-risk state. These ACTIONs are modified by a Note that states that LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. This Note prohibits the use of LCO 3.0.4.a to enter HOT SHUTDOWN during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering HOT SHUTDOWN, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

The ACTIONS are modified by a Note that requires entry into the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage limit.

3/4.6 CONTAINMENT SYSTEMS (continued)

BASES (continued)

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS (continued)

3/4.6.2.2 IODINE REMOVAL SYSTEM

The OPERABILITY of the Iodine Removal System ensures that sufficient N_2H_4 is added to the containment spray in the event of a LOCA. The limits on N_2H_4 volume and concentration ensure a minimum of 50 ppm of N_2H_4 concentration available in the spray for a minimum of 6.5 hours per pump for a total of 13 hours to provide assumed iodine decontamination factors on the containment atmosphere during spray function and ensure a pH value of between 7.0 and 8.1 for the solution recirculated within containment after a LOCA. This pH band minimizes the evolution of iodine and minimizes the effect of chloride and caustic stress corrosion on mechanical systems and components. The contained water volume limit includes an allowance for water not usable because of tank discharge line location or other physical characteristics. These assumptions are consistent with the iodine removal efficiency assumed in the safety analyses.

3/4.6.2.3 DELETED

3/4.6.3 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment and is consistent with the requirements of GDC 54 through GDC 57 of Appendix A to 10 CFR Part 50. Containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

The ACTIONS are modified by Note 1, which ensures that appropriate remedial actions are taken as necessary if the affected systems are rendered inoperable by an inoperable containment isolation valve. Note 2 requires entry into the ACTION of LCO 3.6.1.2, "Containment Leakage," when leakage results in exceeding the overall containment leakage limit.

3/4.7 PLANT SYSTEMS (continued)

BASES (continued)

3/4.7.1 TURBINE CYCLE (continued)

3/4.7.1.7 ATMOSPHERIC DUMP VALVES

The limitation on maintaining the atmospheric dump valves in the manual mode of operation is to ensure the atmospheric dump valves will be closed in the event of a steam line break. For the steam line break with atmospheric dump valve control failure event, the failure of the atmospheric dump valves to close would be a valid concern were the system to be in the automatic mode during power operations.

3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

The limitation on steam generator pressure and temperature ensures that the pressure-induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits. The limitations to 100°F and 200 psig are based on a steam generator RT_{NDT} of 20°F and are sufficient to prevent brittle fracture.

3/4.7.3 COMPONENT COOLING WATER SYSTEM

The OPERABILITY of the Component Cooling Water System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses.

The ACTION is modified by a Note that requires entry into the applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for SDC made inoperable by CCW. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

3/4.7 PLANT SYSTEMS (continued)

BASES (continued)

3/4.7.3 COMPONENT COOLING WATER SYSTEM (continued)

If the inoperable component cooling water loop cannot be restored to an OPERABLE status within the allowable outage time, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least HOT STANDBY within 6 hours and to HOT SHUTDOWN within the following 6 hours. Remaining within the Applicability of the LCO is acceptable because the plant risk in HOT SHUTDOWN is similar to or lower than COLD SHUTDOWN (reference CE NPSD-1186-A, Technical Justification for the Risk Informed Modification to Selected Required Action End States for CEOG PWRs, October 2001). In HOT SHUTDOWN there are more accident mitigation systems available and there is more redundancy and diversity in core heat removal mechanisms than in COLD SHUTDOWN. However, voluntary entry into COLD SHUTDOWN may be made as it is also an acceptable low-risk state. These ACTIONs are modified by a Note that states that LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. This Note prohibits the use of LCO 3.0.4 .a to enter HOT SHUTDOWN during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering HOT SHUTDOWN, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

3/4.7.4 INTAKE COOLING WATER SYSTEM

The OPERABILITY of the Intake Cooling Water System ensures that sufficient cooling capacity is available for continued operation of equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses.

The ACTION is modified by a Note that requires entry into the applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," for SDC made inoperable by iCW. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

BASES FOR SECTION 3/4.8

3/4.8 ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1, 3/4.8.2 and 3/4.8.3 A.C. SOURCES, D.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for 1) the safe shutdown of the facility and 2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criteria 17 of Appendix "A" to 10 CFR 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source. The A.C. and D.C. source allowable out-of-service times are based on Regulatory Guide 1.93, "Availability of Electrical Power Sources," December 1974. When one diesel generator is inoperable, there is an additional requirement to check that all required systems, subsystems, trains, components and devices (i.e., redundant features), that depend on the remaining OPERABLE diesel generator as a source of emergency power, are also OPERABLE, and that the steam-driven auxiliary feedwater pump is OPERABLE. These redundant required features are those that are assumed to function to mitigate an accident, coincident with a loss of offsite power, in the safety analysis, such as the emergency core cooling system and auxiliary feedwater system. Upon discovery of a concurrent inoperability of required redundant features the feature supported by the inoperable EDG is declared inoperable. Thus plant operators will be directed to supported feature TS action requirements for appropriate remedial actions for the inoperable required features.

INSERT 3.8.1.1.a

¶

INSERT B 3.8.1.1.a

ACTION a.2, which only applies if the train cannot be powered from an offsite source, is intended to provide assurance that an event coincident with a single failure of the associated DG will not result in a complete loss of safety function of critical redundant required features. These features are powered from the redundant AC electrical power train. The turbine driven AFW pump is considered a redundant required feature because the design is such that the remaining operable motor driven AFW pumps are not by themselves capable (without any reliance on the motor driven AFW pump powered by the emergency bus associated with the inoperable diesel generator) of providing 100% of the AFW assumed in the safety analysis.

The completion time (also referred to as allowed outage time (AOT)) for ACTION a.2 is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the completion time "clock." In this ACTION, the completion time only begins on discovery that both:

a. The train has no offsite power supplying it loads and

b. A required feature on the other train is inoperable.

If at any time while one offsite circuit is inoperable a redundant required feature subsequently becomes inoperable, this completion time begins to be tracked. Discovering no offsite power to one train of the onsite Class 1E Electrical Power Distribution System coincident with one or more inoperable required support or supported features, or both, that are associated with the other train that has offsite power, results in starting the completion time for the ACTION. Twenty-four hours is acceptable because it minimizes risk while allowing time for restoration before subjecting the unit to transients associated with shutdown.

The remaining OPERABLE offsite circuit and DGs are adequate to supply electrical power to Train A and Train B of the onsite Class 1E Distribution System. The 24-hour completion time takes into account the component OPERABILITY of the redundant counterpart to the inoperable required feature. Additionally, the 24-hour completion time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.¶

3/4.8 ELECTRICAL POWER SYSTEMS (continued)

BASES (continued)

3/4.8.1, 3/4.8.2 and 3/4.8.3 A.C. SOURCES, D.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS (continued)

The four hour completion time upon discovery that an opposite train required feature is inoperable is to provide assurance that a loss of offsite power, during the period that a EDG is inoperable, does not result in a complete loss of safety function of critical redundant required features. The four hour completion time allows the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." The four hour completion time only begins on discovery that both an inoperable EDG exists and a required feature on the other train is inoperable.

TS 3.8.1.1, ACTION "b" provides an allowed outage/action completion time (AOT) of up to 14 days to restore a single inoperable diesel generator to operable status. This AOT is based on the findings of a deterministic and probabilistic safety analysis and is referred to as a "risk-informed" AOT. Entry into this action requires that a risk assessment be performed in accordance with the Configuration Risk Management Program (CRMP), which is described in the Administrative Procedure that implements the Maintenance Rule pursuant to 10 CFR 50.65.

INSERT B 3.8.1.1.c

INSERT B 3.8.1.1.d

All EDG inoperabilities must be investigated for common-cause failures regardless of how long the EDG inoperability persists. When one diesel generator is inoperable, required ACTIONS 3.8.1.1.b and 3.8.1.1.c provide an allowance to avoid unnecessary testing of EDGs. If it can be determined that the cause of the inoperable EDG does not exist on the remaining OPERABLE EDG, then SR 4.8.1.1.2.a.4 does not have to be performed. Eight (8) hours is reasonable to confirm that the OPERABLE EDG is not affected by the same problem as the inoperable EDG. If it cannot otherwise be determined that the cause of the initial inoperable EDG does not exist on the remaining EDG, then satisfactory performance of SR 4.8.1.1.2.a.4 suffices to provide assurance of continued OPERABILITY of that EDG. If the cause of the initial inoperability exists on the remaining OPERABLE EDG, that EDG would also be declared inoperable upon discovery, and ACTION 3.8.1.1.e would be entered. Once the failure is repaired (on either EDG), the common-cause failure no longer exists.

INSERT B 3.8.1.1.c

Pursuant to LCO 3.0.6, the Distribution System ACTIONS would not be entered even if all AC sources to it were inoperable, resulting in de-energization. Therefore, ACTION c is modified by a note to indicate that when ACTION c is entered with no AC source to any train, the ACTIONs for LCO 3.8.3.1, "A.C. Distribution - Operating," must be immediately entered. This allows ACTION c to provide requirements for the loss of one offsite circuit and one DG, without regard to whether a train is de-energized. LCO 3.8.3.1 provides the appropriate restrictions for a de-energized train.

INSERT B 3.8.1.1.d

ACTION d.1, which applies when two offsite circuits are inoperable, is intended to provide assurance that an event with a coincident single failure will not result in a complete loss of redundant required safety functions. The completion time for this failure of redundant required features is reduced to 12 hours from that allowed for one train without offsite power (ACTION a.2). The rationale for the reduction to 12 hours is that Regulatory Guide 1.93 allows a completion time of 24 hours for two required offsite circuits inoperable, based upon the assumption that two complete safety trains are OPERABLE. When a concurrent redundant required feature failure exists, this assumption is not the case, and a shorter completion time of 12 hours is appropriate. These features are powered from redundant AC safety trains. This includes motor driven auxiliary feedwater pumps. Single train features, such as turbine driven auxiliary pumps, are not included in the list.

The completion time for ACTION d.1 is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." In this ACTION, the completion time only begins on discovery that both:

a. All required offsite circuits are inoperable and

b. A required feature is inoperable.

If at any time while two offsite circuits are inoperable a required feature becomes inoperable, this completion time begins to be tracked.

3/4.8 ELECTRICAL POWER SYSTEMS (continued)

BASES (continued)

3/4.8.1, 3/4.8.2 and 3/4.8.3 A.C. SOURCES, D.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS (continued)

Action g prohibits the application of LCO 3.0.4.b to an inoperable diesel generator. There is an increased risk associated with entering a MODE or other specified condition in the Applicability with an inoperable diesel generator and the provisions of LCO 3.0.4.b, which allow entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, should not be applied in this circumstance.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that 1) the facility can be maintained in the shutdown or refueling condition for extended time periods and 2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

INSERT B 3.8.1.2 SD

If the inoperable A.C. power source and associated distribution system or D.C. power source and associated distribution system cannot be restored to an OPERABLE status within the allowable outage time, the plant must be brought to a MODE in which overall plant risk is minimized. To achieve this status, the plant must be brought to at least HOT STANDBY within 6 hours and to HOT SHUTDOWN within the following 6 hours. Remaining within the Applicability of the LCO is acceptable because the plant risk in HOT SHUTDOWN is similar to or lower than COLD SHUTDOWN (reference CE NPSD-1186-A, Technical Justification for the Risk Informed Modification to Selected Required Action End States for CEOG PWRs, October 2001). In HOT SHUTDOWN there are more accident mitigation systems available and there is more redundancy and diversity in core heat removal mechanisms than in COLD SHUTDOWN. However, voluntary entry into COLD SHUTDOWN may be made as it is also an acceptable low-risk state. These ACTIONs are modified by a Note that states that LCO 3.0.4.a is not applicable when entering HOT SHUTDOWN. This Note prohibits the use of LCO 3.0.4.a to enter HOT SHUTDOWN during startup with the LCO not met. However, there is no restriction on the use of LCO 3.0.4.b, if applicable, because LCO 3.0.4.b requires performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering HOT SHUTDOWN, and establishment of risk management actions, if appropriate. LCO 3.0.4 is not applicable to, and the Note does not preclude, changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

INSERT B 3.8.3.1

INSERT B 3.8.1.2 SD

Pursuant to LCO 3.0.6, the Distribution System's ACTIONs would not be entered even if all AC sources to it are inoperable, resulting in de-energization. Therefore, the ACTION in LCO 3.8.1.2, "A.C. Sources – Shutdown," is modified by a Note to indicate that when the ACTION is entered with no AC power to any required ESF bus, the ACTIONS of LCO 3.8.3.2 must be immediately entered. This Note allows the ACTION in LCO 3.8.1.2 to provide requirements for the loss of the offsite circuit, whether or not a train is de-energized. LCO 3.8.3.2 would provide the appropriate restrictions for the situation involving a de-energized train.

INSERT B 3.8.3.1

The ACTION in LCO 3.8.3.1, "Onsite Power Distribution – Operating," is modified by a Note that requires the applicable ACTIONS of LCO 3.8.2.1, "D.C. Sources - Operating," to be entered for DC trains made inoperable by inoperable power distribution subsystems. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components. Inoperability of a distribution system can result in loss of charging power to batteries and eventual loss of DC power. This Note ensures that the appropriate attention is given to restoring charging power to batteries, if necessary, after loss of distribution systems

Seabrook Proposed Technical Specification Bases Changes (Mark-Up)

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

BASES

the LCO is required to be met (i.e., when the unit is in the MODES or other specified conditions of the Applicability statement of each Specification).

Specification 3.0.1 through 3.0.4 establish the general requirements applicable to Limiting Conditions for Operation. These requirements are based on the requirements for Limiting Conditions for Operation stated in the Code of Federal Regulations, 10 CFR 50.36(c)(2):

"Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specification until the condition can be met."

Specification 3.0.1 establishes the Applicability statement within each individual specification as the requirement for when ~~(i.e., in which OPERATIONAL MODES or other specified conditions) conformance to the Limiting Conditions for Operation is required for safe operation of the facility. The ACTION requirements establish those remedial measures that must be taken within specified time limits when the requirements of a Limiting Condition for Operation are not met.~~

~~There are two basic types of ACTION requirements. The first specifies the remedial measures that permit continued operation of the facility which is not further restricted by the time limits of the ACTION requirements. In this case, conformance to the ACTION requirements provides an acceptable level of safety for unlimited continued operation as long as the ACTION requirements continue to be met. The second type of ACTION requirement specifies a time limit in which conformance to the conditions of the Limiting Condition for Operation must be met. This time limit is the allowable outage time to restore an inoperable system or component to OPERABLE status or for restoring parameters within specified limits. If these actions are not completed within the allowable outage time limits, a shutdown is required to place the facility in a MODE or condition in which the specification no longer applies. It is not intended that the shutdown ACTION requirements be used as an operational convenience which permits (routine) voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable.~~

~~The specified time limits of the ACTION requirements are applicable from the point in time it is identified that a Limiting Condition for Operation is not met. The time limits of the ACTION requirements are also applicable when a system or component is removed from service for surveillance testing or investigation of operational problems. Individual specifications may include a specified time limit for the completion of a Surveillance Requirement when equipment is removed from service. In this case, the allowable outage time limits of the ACTION requirements are applicable when this limit expires if the surveillance has not been completed. When a shutdown is required to comply with ACTION requirements, the plant may have entered a MODE in which a new specification becomes applicable. In this case, the time limits of the ACTION requirements would apply from the point in time that the new specification becomes applicable if the requirements of the Limiting Condition for Operation are not met.~~

INSERT B 3.0.2

Specification 3.0.2 ~~establishes that noncompliance with a specification exists when the requirements of the Limiting Condition for Operation are not met and the associated ACTION requirements have not been implemented within the specified time interval. The purpose of this specification is to clarify that (1) implementation of the ACTION requirements within the specified time interval constitutes compliance with a specification and (2) completion of the remedial measures of the ACTION requirements is not required when compliance with a Limiting Condition of Operation is restored within the time interval specified in the associated ACTION requirements.~~

Specification 3.0.3 establishes the shutdown ACTION requirements that must be implemented when a Limiting Condition for Operation is not met and the condition is not specifically addressed by the associated ACTION requirements. The purpose of this specification is to delineate the time limits for placing the unit in a safe shutdown MODE when plant operation cannot be maintained within the limits for safe operation defined by the Limiting Conditions for Operation and its ACTION requirements. It is not intended to be used as an operational convenience which permits (routine) voluntary removal of redundant systems or components from service in lieu of other alternatives that would not result in redundant systems or components being inoperable. One hour is allowed to prepare for an orderly shutdown before initiating a change in plant operation. This time permits the operator to coordinate the reduction in electrical generation with the load dispatcher to ensure the stability and availability of the electrical grid. The time limits specified to reach lower MODES of operation permit the shutdown to proceed in a controlled and orderly manner that is well within the specified maximum cooldown rate and within the cooldown capabilities of the facility assuming only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the primary coolant system and the potential for a plant upset that could challenge safety systems under conditions for which this specification applies.

If remedial measures permitting limited continued operation of the facility under the provisions of the ACTION requirements are completed, the shutdown may be terminated. The time limits of the ACTION requirements are applicable from the point in time there was a failure to meet a Limiting Condition for Operation. Therefore, the shutdown may be terminated if the ACTION requirements have been met or the time limits of the ACTION requirements have not expired, thus providing an allowance for the completion of the required actions.

The time limits of Specification 3.0.3 allow 37 hours for the plant to be in the COLD SHUTDOWN MODE when a shutdown is required during the POWER MODE of operation. If the plant is in a lower MODE of operation when a shutdown is required, the time limit for reaching the next lower MODE of operation applies. However, if a lower MODE of operation is reached in less time than allowed, the total allowable time to reach COLD SHUTDOWN, or other applicable MODE, is not reduced. For example, if HOT STANDBY is reached in 2 hours, the time allowed to reach HOT SHUTDOWN is the next 11 hours because the total time to reach HOT SHUTDOWN is not reduced from the allowable limit of 13 hours.

INSERT B 3.0.2

establishes that upon discovery of a failure to meet an LCO, the associated ACTIONS shall be met. The completion time of each ACTION is applicable from the point in time that an ACTION is entered. The ACTIONS establish those remedial measures that must be taken within the specified completion times when the requirements of an LCO are not met. This Specification establishes that:

a. Completion of the ACTIONS within the specified completion times constitutes compliance with a Specification, and

b. Completion of the ACTIONS is not required when an LCO is met within the specified completion time, unless otherwise specified.

There are two basic types of ACTIONS. The first type of ACTION specifies a time limit in which the LCO must be met. This time limit is the completion time to restore an inoperable system or component to OPERABLE status or to restore variables to within specified limits. If this type of ACTION is not completed within the specified completion time, a shutdown may be required to place the unit in a MODE or condition in which the Specification is not applicable. (Whether stated as an ACTION or not, correction of the condition that necessitated entered the ACTION is an action that may always be considered upon entering ACTIONS.) The second type of ACTION specifies the remedial measures that permit continued operation of the unit that is not further restricted by the completion time. In this case, compliance with the ACTIONS provides an acceptable level of safety for continued operation.

Completing the ACTIONS is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.

The completion times of the ACTIONS are also applicable when a system or component is removed from service intentionally. The reasons for intentionally relying on the ACTIONS include, but are not limited to, performance of Surveillances, preventive maintenance, corrective maintenance, or investigation of operational problems. Entering ACTIONS for these reasons must be done in a manner that does not compromise safety. Intentional entry into ACTIONS should not be made for operational convenience. Additionally, if intentional entry into ACTIONS would result in redundant equipment being inoperable, alternatives should be used instead. Doing so limits the time both subsystems/trains of a safety function are inoperable and limits the time conditions exist which may result in LCO 3.0.3 being entered. Individual Specifications may specify a time limit for performing a Surveillance Requirement when equipment is removed from service or bypassed for testing. In this case, the completion times of the ACTIONS are applicable when this time limit expires, if the equipment remains removed from service or bypassed.

When a change in MODE or other specified condition is required to comply with ACTIONS, the unit may enter a MODE or other specified condition in which another Specification becomes applicable. In this case, the completion times of the associated ACTIONS would apply from the point in time that the new Specification becomes applicable, and the ACTIONS are entered.

a. The OPERABILITY of the equipment being returned to service; or

b. The OPERABILITY of other equipment.

The administrative controls ensure the time the equipment is returned to service in conflict with the requirements of the ACTIONS is limited to the time absolutely necessary to perform the allowed required testing. This Specification does not provide time to perform any other preventive or corrective maintenance.

An example of demonstrating the OPERABILITY of the equipment being returned to service is reopening a containment isolation valve that has been closed to comply with Required Actions and must be reopened to perform the required testing.

INSERT B 3.0.6

An example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system. A similar example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to permit the logic to function and indicate the appropriate response during the performance of required testing on another channel in the same trip system.

Specifications 4.0.1 through 4.0.5 establish the general requirements applicable to Surveillance Requirements. These requirements are based on the Surveillance Requirements stated in the Code of Federal Regulations, 10 CFR 50.36(c)(3):

"Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions of operation will be met."

Specifications 4.0.2 and 4.0.3 apply in Chapter 6 only when invoked by a Chapter 6 Specification.

INSERT B 3.0.6

Specification 3.0.6 establishes an exception to LCO 3.0.2 for supported systems that have a support system LCO specified in the Technical Specifications (TS). This exception is provided because LCO 3.0.2 would require that the ACTIONS of the associated inoperable supported system LCO be entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the unit is maintained in a safe condition are specified in the support system LCO's ACTIONS. These ACTIONS may include entering the supported system's ACTIONS or may specify other ACTIONS.

When a support system is inoperable and there is an LCO specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' ACTIONs unless directed to do so by the support system's ACTION. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCOs' ACTION are eliminated by providing all the actions that are necessary to ensure the unit is maintained in a safe condition in the support system's ACTIONs.

However, there are instances where a support system's ACTION may either direct a supported system to be declared inoperable or direct entry into the ACTIONs for the supported system. This may occur immediately or after some specified delay to perform some other ACTION. Regardless of whether it is immediate or after some delay, when a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with Specification 3.0.1.

Specification 6.7.6.o, "Safety Function Determination Program (SFDP)," ensures loss of safety function is detected and appropriate actions are taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system ACTIONs. The SFDP implements the requirements of LCO 3.0.6.

The following examples use Figure B 3.0-1 to illustrate loss of safety function conditions that may result when a TS support system is inoperable. In this figure, the fifteen systems that comprise Train A are independent and redundant to the fifteen systems that comprise Train B. To correctly use the figure to illustrate the SFDP provisions for a cross train check, the figure establishes a relationship between support and supported systems as follows: the figure shows System 1 as a support system for System 2 and System 3; System 2 as a support system for System 4 and System 5; and System 4 as a support system for System 8 and System 9. Specifically, a loss of safety function may exist when a support system is inoperable and:

a. A system redundant to system(s) supported by the inoperable support system is also inoperable (EXAMPLE B 3.0.6-1),

b. A system redundant to system(s) in turn supported by the inoperable supported system is also inoperable (EXAMPLE B 3.0.6-2), or

c. A system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable (EXAMPLE B 3.0.6-3).

For the following examples, refer to Figure B 3.0-1.

EXAMPLE B 3.0.6-1

If System 2 of Train A is inoperable and System 5 of Train B is inoperable, a loss of safety function exists in Systems 5, 10, and 11.

EXAMPLE B 3.0.6-2

If System 2 of Train A is inoperable, and System 11 of Train B is inoperable, a loss of safety function exists in System 11.

EXAMPLE B 3.0.6-3

If System 2 of Train A is inoperable, and System 1 of Train B is inoperable, a loss of safety function exists in Systems 2, 4, 5, 8, 9, 10 and 11.

If an evaluation determines that a loss of safety function exists, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

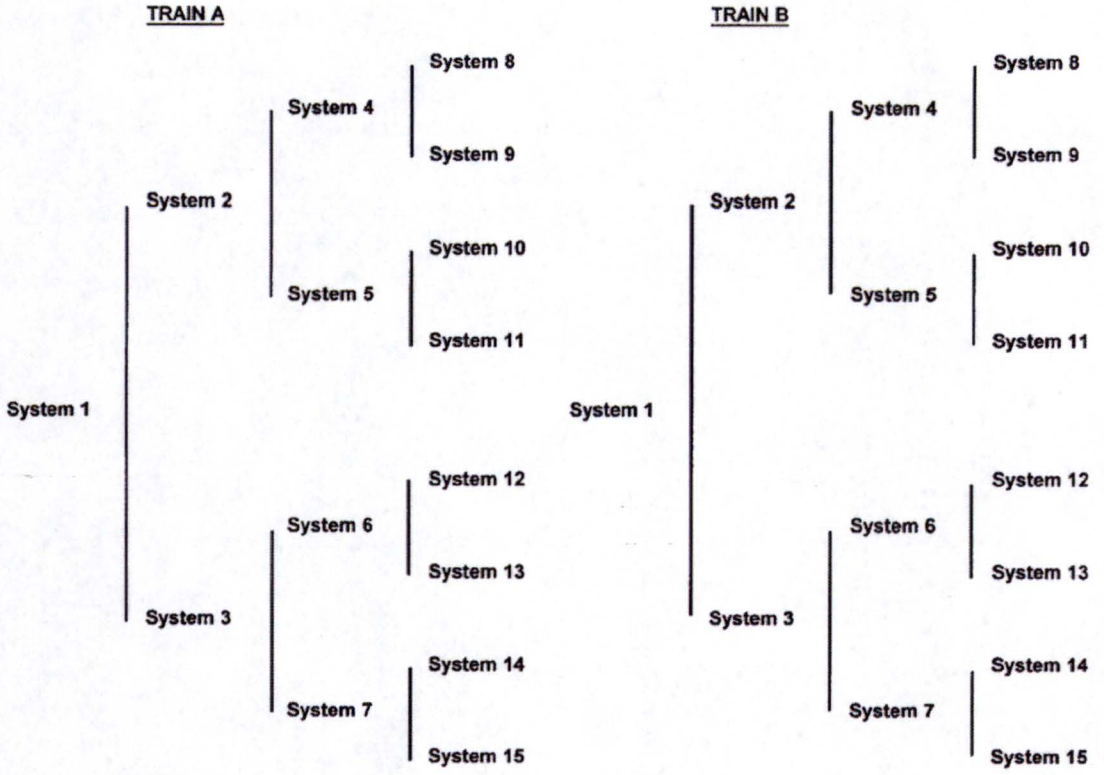

Figure B 3.0-1
Configuration of Trains and Systems

This loss of safety function does not require the assumption of additional single failures or loss of offsite power. Since operations are being restricted in accordance with the ACTIONS of the support system, any resulting temporary loss of redundancy or single failure protection is taken into account. Similarly, the ACTIONS for inoperable offsite circuit(s) and inoperable diesel generator(s) provide the necessary restriction for cross train inoperabilities. This explicit cross train verification for inoperable AC electrical power sources also acknowledges that supported system(s) are not declared inoperable solely as a result of inoperability of a normal or emergency electrical power source (refer to the definition of OPERABILITY).

When loss of safety function is determined to exist, and the SFDP requires entry into the appropriate ACTIONS of the LCO in which the loss of safety function exists, consideration must be given to the specific type of function affected. Where a loss of function is solely due to a single TS support system (e.g., loss of automatic start due to inoperable instrumentation, or loss of pump suction source due to low tank level), the appropriate LCO is the LCO for the support system. The ACTIONS for a support system LCO adequately address the inoperabilities of that system without reliance on entering its supported system LCO. When the loss of function is the result of multiple support systems, the appropriate LCO is the LCO for the supported system.

REACTOR COOLANT SYSTEM LEAKAGE

3/4.4.6.2 OPERATIONAL LEAKAGE (Continued)

Pressure Isolation Valve Leakage

The specified allowed leakage from any RCS pressure isolation valve is sufficiently low to ensure early detection of possible in-series check valve failure. It is apparent that when pressure isolation is provided by two in-series check valves and when failure of one valve in the pair can go undetected for a substantial length of time, verification of valve integrity is required. Since these valves are important in preventing over-pressurization and rupture of the ECCS low pressure piping which could result in a LOCA that bypasses containment, these valves should be tested periodically to ensure low probability of gross failure.

APPLICABILITY

In MODES 1, 2, 3, and 4, the potential for RCPB leakage is greatest when the RCS is pressurized.

In MODES 5 and 6, leakage limits are not required because the reactor coolant pressure is far lower, resulting in lower stresses and reduced potentials for leakage.

ACTIONS

Unidentified leakage, identified leakage (excluding primary to secondary leakage), or controlled leakage in excess of the LCO limits must be reduced to within limits within 4 hours. This completion time allows time to verify leakage rates and either identify unidentified leakage or reduce leakage to within limits before the reactor must be shut down. This action is necessary to prevent further deterioration of the RCPB.

If any pressure boundary leakage exists or primary to secondary leakage is not within limit; or if unidentified leakage, identified leakage, or controlled leakage cannot be reduced to within limits within 4 hours, the reactor must be brought to lower pressure conditions to reduce the severity of the leakage and its potential consequences. It should be noted that leakage past seals and gaskets is not pressure boundary leakage. The reactor must be brought to MODE 3 within 6 hours and MODE 5 within 36 hours. This action reduces the leakage and also reduces the factors that tend to degrade the pressure boundary. The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. In MODE 5, the pressure stresses acting on the RCPB are much lower, and further deterioration is much less likely.

The note that modifies ACTION c requires an evaluation of affected systems if a pressure isolation valve is inoperable. The leakage may have affected system operability or isolation of a leaking flow path with an alternate valve may have degraded the ability of the interconnected system to perform its safety function.

3/4.6 CONTAINMENT SYSTEMS

BASES

3/4.6.1 PRIMARY CONTAINMENT

3/4.6.1.1 CONTAINMENT INTEGRITY

Primary CONTAINMENT INTEGRITY ensures that the release of radioactive materials from the containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the safety analyses. This restriction, in conjunction with the leakage rate limitation, will limit the SITE BOUNDARY radiation doses to within the dose guidelines of 10 CFR 50.67 during accident conditions.

3/4.6.1.2 CONTAINMENT LEAKAGE

Primary containment OPERABILITY is maintained by limiting leakage to $\leq 1.0\ L_a$, except prior to the first startup after performing a required Primary Containment Leakage Rate Testing Program leakage test. At this time, applicable leakage limits must be met. The limitations on containment leakage rates ensure that the total containment leakage volume will not exceed the value assumed in the safety analyses at the peak accident pressure, P_a. As an added conservatism, the measured overall integrated leakage rate is further limited to less than or equal to $0.75\ L_a$ during performance of the periodic tests to account for possible degradation of the containment leakage barriers between leakage tests.

The surveillance testing for measuring leakage rates is in accordance with the Containment Leakage Rate Testing Program.

3/4.6.1.3 CONTAINMENT AIR LOCKS

The limitations on closure and leak rate for the containment air locks are required to meet the restrictions on CONTAINMENT INTEGRITY and containment leak rate. Surveillance testing of the air lock seals provides assurance that the overall air lock leakage will not become excessive due to seal damage during the intervals between air lock leakage tests.

3/4.6.1.4 INTERNAL PRESSURE

The limitations on containment internal pressure ensure that: (1) the containment structure is prevented from exceeding its design negative pressure differential with respect to the annulus atmosphere of 3.5 psi and (2) the containment peak pressure does not exceed the design pressure of 52 psig during LOCA conditions.

The maximum peak pressure expected to be obtained from a LOCA event is 49.6 psig. The limit of 16.2 psia for initial positive containment pressure will limit the total pressure to 49.6 psig which is less than the design pressure and is consistent with the safety analyses.

In the event the air lock leakage results in exceeding the overall containment leakage rate, the Note directs entry into the ACTION of LCO 3.6.1.2, "Containment Leakage."

3/4.6.3 CONTAINMENT ISOLATION VALVES (Continued)

The method of isolating a penetration with an inoperable containment isolation valve must include the use of an isolation barrier that cannot be adversely affected by a single active failure. Barriers that meet this criterion include: (1) a deactivated automatic valves secured in the isolation position, (2) a closed manual valve, and (3) a blind flange. Closed systems within containment do not meet the isolation criterion because they are vulnerable to failures. Isolating a penetration with a deactivated automatic valve may be accomplished using either the inoperable valve, if it can be verified to be fully closed, or the operable automatic valve. Manual valves and blind flanges used to isolate a penetration must be within the penetration's ASME class boundary and qualified to ASME Class 2.

3/4.6.4 COMBUSTIBLE GAS CONTROL

The Hydrogen Mixing Systems are provided to ensure adequate mixing of the containment atmosphere following a LOCA. This mixing action will prevent localized accumulations of hydrogen from exceeding the flammable limit.

The ACTIONs are modified by two notes. The first Note ensures that appropriate remedial actions are taken, if necessary, if the affected systems are rendered inoperable by an inoperable containment isolation valve. In the event the isolation valve leakage results in exceeding the overall containment leakage rate, the second Note directs entry into the ACTION of LCO 3.6.1.2.

3/4.7.3 PRIMARY COMPONENT COOLING WATER SYSTEM (Continued)

An automatic valve may be aligned in other than its accident position provided (1) the valve receives an automatic signal to re-position to its required position in the event of an accident, and (2) the valve is otherwise operable (stroke time within limits, motive force available to re-position the valve, control circuitry energized, and mechanically capable of re-positioning).

3/4.7.4 SERVICE WATER SYSTEM/ULTIMATE HEAT SINK

The Service Water System consists of two independent loops, each of which can operate with either a service water pump train or a cooling tower pump train. Each service water loop consists of a service water pump and the piping, valves, and other components necessary to provide the flowpath required for heat removal. Each service water cooling tower loop consists of a service water cooling tower pump and the necessary piping, valves and other components required to provide its flowpath. The OPERABILITY of the Service Water System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single failure, is consistent with the assumptions used in the safety analyses, which also assumes loss of either the cooling tower or ocean cooling.

Cooling is normally provided by the Atlantic Ocean via the service water pumphouse. A seismically qualified mechanical draft cooling tower is provided as a backup to the ocean cooling water source because the supply from the circulating water tunnels is not seismically qualified. The mechanical draft cooling tower was designed to use three cells to support two units. Unit 1 utilizes two train-related cells; cell 1 serves Train A and has a single fan, the common cell serves Train B and has two fans. The cooling tower design basis is to provide the necessary ultimate heat sink in the event of a loss of ocean tunnel water flow; however, this source may be used during normal operations subject to the level and temperature limitations of this specification.

Operability of the ultimate heat sink requires a portable cooling tower makeup system stored in its design operational readiness state. A seismic event could result in loss of the ocean supply to the service water system and reliance on operation of the cooling tower. Regulatory Guide (RG) 1.27 requires a heat sink capable of providing cooling for 30 days; however, the cooling tower basin contains sufficient water for only seven days of operation. Consequently, after seven days, the portable cooling tower makeup system provides a reliable makeup source for the cooling tower to meet the 30-day requirement. The normal source of cooling tower makeup, potable water, is not considered since it is not designed to withstand a seismic event.

The portable cooling tower makeup system, which must be stored in a seismic location, consists of the following:

- A diesel-drive driven pump
- 3000 feet of flexible hose and associated couplings
- A suction strainer

The ACTION is modified by a Note indicating that the applicable ACTION of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," be entered if an inoperable PCCW train results in an inoperable residual heat removal loop. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

3/4.7.4 SERVICE WATER SYSTEM/ULTIMATE HEAT SINK (Continued)

Verifying the correct alignment of manual, power-operated, and automatic valves provides assurance that the proper flow paths exist for operation of the Service Water System under accident conditions. This verification includes only those valves in the direct flow paths through safety-related equipment whose position is critical to the proper functioning of the safety-related equipment. Vents, drains, sampling connections, instrument taps, etc., that are not directly in the flow path and are not critical to proper functioning of the safety-related equipment are excluded from this surveillance requirement. This surveillance does not apply to valves that are locked, sealed, or otherwise secured in position because these valves are verified in their correct position prior to locking, sealing, or securing. Also, this requirement does not apply to valves that cannot be inadvertently misaligned, such as check valves.

An automatic valve may be aligned in other than its accident position provided (1) the valve receives an automatic signal to re-position to its required position in the event of an accident, and (2) the valve is otherwise operable (stroke time within limits, motive force available to re-position the valve, control circuitry energized, and mechanically capable of re-positioning).

3/4.7.5 (THIS SPECIFICATION NUMBER IS NOT USED)

3/4.7.6 CONTROL ROOM SUBSYSTEMS

CONTROL ROOM EMERGENCY MAKEUP AIR AND FILTRATION SYSTEM (CREMAFS)

BACKGROUND

The control room emergency makeup air and filtration system (CREMAFS) provides a protected environment from which occupants can control the unit following an uncontrolled release of radioactivity or smoke.

The CREMAFS consists of two independent, redundant trains that recirculate and filter the air in the control room envelope (CRE) and a CRE boundary that limits the inleakage of unfiltered air. Each CREMAFS train consists of a prefilter, a high efficiency particulate air (HEPA) filter, an activated charcoal adsorber section for removal of gaseous activity (principally iodines), and a fan. Ductwork, valves or dampers, doors, barriers, and instrumentation also form part of the system. A second bank of HEPA filters follows the adsorber section to collect carbon fines and provides backup in case of failure of the main HEPA filter bank.

The ACTIONs are modified by two Notes. The first Note indicates that the applicable ACTIONs of LCO 3.8.1.1, "AC Sources - Operating," should be entered if an inoperable service water system (SWS) train results in an inoperable diesel generator. The second Note indicates that the applicable ACTIONs of LCO 3.4.1.3, Reactor Coolant Loops and Coolant Circulation," should be entered if an inoperable SWS train results in an inoperable residual heat removal loop. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components.

3/4.8.1 AC SOURCES (Continued)

LIMITING CONDITION FOR OPERATION (LCO) (continued)

The AOTs are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging plant systems.

The term, "verify," as used in this context means to administratively check by examining logs or other information to determine if certain components are out of service for maintenance or other reasons. It does not mean to perform the Surveillance Requirements needed to demonstrate the OPERABILITY of the component.

a. ACTION a. is to ensure a highly reliable power source remains with one offsite circuit inoperable, it is necessary to verify the OPERABILITY of the remaining required offsite circuit on a more frequent basis, i.e., within 1 hour of discovery and at least once every 8 hours thereafter. However, if a second required circuit fails Surveillance Requirement (SR) 4.8.1.1.1a, the second offsite circuit is inoperable, and ACTION e., for two offsite circuits inoperable, would have to be entered.

According to Regulatory Guide 1.93 (Ref. 6), operation may continue with one offsite power source inoperable for a period that should not exceed 72 hours. With one offsite circuit inoperable, the reliability of the offsite system is degraded, and the potential for a loss of offsite power is increased, with attendant potential for a challenge to the unit safety systems. In this condition, however, the remaining OPERABLE offsite circuit and EDGs are adequate to supply electrical power to the onsite Class 1E Distribution System.

The 72-hour allowed outage time (AOT) takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.

INSERT B 3.8.1.1.a

b. When one EDG is inoperable it is necessary to verify the availability of the offsite circuits on a more frequent basis to ensure a highly reliable power source remains. Since the required ACTION only specifies "perform," a failure of SR 4.8.1.1.1a acceptance criteria does not result in onsite Class 1E a required ACTION being not met. However, if a circuit fails to pass SR 4.8.1.1.1a, it is inoperable. Upon offsite circuit inoperability, additional conditions and required ACTIONs must then be entered.

ACTION b. requires performance of ACTION d., which is intended to provide assurance that a loss of offsite power, during the period that a EDG is inoperable, does not result in a complete loss of safety function of critical features/systems. While in this condition (one EDG inoperable), the remaining OPERABLE EDG and offsite circuits are adequate to supply electrical power to the Distribution System. Refer to ACTION d. basis for further discussion.

ACTION b. also requires starting the remaining EDG per SR 4.8.1.1.2a.5) within 24 hours to demonstrate OPERABILITY. Starting the operable EDG does not include operating the unit under load. With one EDG inoperable, operating the one remaining operable EDG in parallel with offsite power for test purposes is not prudent. Operating the EDG under load could increase its vulnerability to failure if offsite power is disturbed or lost. The associated * footnote provides an allowance to avoid unnecessary testing of the remaining EDG to verify OPERABLITY. If the remaining EDG has been successfully operated within the last 24 hours, if currently operating or if it can be determined that the cause of the inoperable EDG does not exist on the OPERABLE EDG, SR 4.8.1.1.2a.5) does not have to be performed. If the cause of inoperability exists on the remaining EDG, the remaining EDG would be declared inoperable upon discovery and ACTION f. would be entered for two EDGs inoperable. Once the failure is repaired, the common cause failure no longer exists, and ACTION f. is satisfied.

INSERT B 3.8.1.1.a

ACTION a.2, which only applies if the train cannot be powered from an offsite source, is intended to provide assurance that an event coincident with a single failure of the associated DG will not result in a complete loss of safety function of critical redundant required features. These features are powered from the redundant AC electrical power train. Since the emergency feedwater (EFW) system incudes only one motor-driven pump, the turbine-driven EFW pump is considered a required redundant feature.

The completion time (also referred to as allowed outage time (AOT)) for ACTION a.2 is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the completion time "clock." In this ACTION, the completion time only begins on discovery that both:

a. The train has no offsite power supplying it loads and

b. A required feature on the other train is inoperable.

If at any time while one offsite circuit is inoperable a redundant required feature subsequently becomes inoperable, this completion time begins to be tracked. Discovering no offsite power to one train of the onsite Class 1E Electrical Power Distribution System coincident with one or more inoperable required support or supported features, or both, that are associated with the other train that has offsite power, results in starting the completion time for the ACTION. Twenty-four hours is acceptable because it minimizes risk while allowing time for restoration before subjecting the unit to transients associated with shutdown.

The remaining OPERABLE offsite circuit and DGs are adequate to supply electrical power to Train A and Train B of the onsite Class 1E Distribution System. The 24-hour completion time takes into account the component OPERABILITY of the redundant counterpart to the inoperable required feature. Additionally, the 24-hour completion time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.

INSERT 3.8.1.1.c

3/4.8.1 AC SOURCES (Continued)

LIMITING CONDITION FOR OPERATION (LCO) (continued)

c. When in ACTION c., individual redundancy is lost in both the offsite electrical power system and the onsite AC electrical power system. Since power system redundancy is provided by two diverse sources of power, however, the reliability of the power systems in this condition may appear higher than the condition of ACTION e. (loss of both required offsite circuits). This difference in reliability is offset by the susceptibility of this power system configuration to a single bus or switching failure.

ACTION c. also directs the performance of ACTION d. and demonstration of the remaining OPERABLE offsite and onsite power sources, similar to the actions specified in ACTION b., however, demonstration of OPERABILITY for the remaining EDG must be performed in 8 hours. If one power source is restored within 12 hours, power operation continues in accordance with either ACTION a. or ACTION b.

According to Regulatory Guide 1.93 (Ref. 6), operation may continue while in ACTION c. for a period that should not exceed 12 hours. The 12-hour AOT takes into account the capacity and capability of the remaining AC sources, a reasonable time for evaluation and repairs, and the low probability of a DBA occurring during this period.

Following the 12-hour AOT, ACTION c. requires that both diesel generators and both offsite circuits be restored to Operable status within 72 hours. The requirement for restoring both diesel generators to OPERABLE status within 72 hours may be extended to 14 days to perform either extended preplanned maintenance (both preventive and corrective) or extended unplanned corrective maintenance work. Prior to exceeding the 72-hour AOT the SEPS must be available and an operational readiness status check performed in accordance with Technical Requirement (TR) 31. Refer to Bases for ACTION b. for additional information and requirements.

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d. ACTION d. is intended to provide assurance that a loss of offsite power condition does not result in a complete loss of safety function of critical features during the period when either an EDG is inoperable (condition addressed in ACTION b.) or when both an EDG and an offsite power source are inoperable (condition addressed in ACTION c.) at the same time. Critical features are designed with redundant safety related trains. Thus, it is necessary to verify OPERABILITY of redundant critical features in a timely manner. The term "verify," as used in this context means to administratively check by examining logs or other information to determine if certain components are out of service for maintenance or other reasons. It does not mean to perform the Surveillance Requirements needed to demonstrate OPERABILITY of the component.

In addition, when in MODE 1, 2, or 3, the turbine driven emergency feedwater pump must also be verified OPERABLE as well. This requirement ensures a diverse emergency feedwater supply to the steam generators should the remaining offsite and onsite power sources subsequently become inoperable.

Redundant required feature failures consist of inoperable features associated with a train, redundant to the train that has an inoperable EDG (i.e., all required systems, subsystems, trains, components and devices dependent on the remaining OPERABLE EDG must be verified OPERABLE as well). The emergency power supply for the required systems, subsystems, trains, components and devices may be used as the primary basis for determining the redundant features–train relationship. Features whose inoperability has been determined to impact both trains should be considered as Train A and Train B related. Manually operated features should use the same train designation as the electrically powered features in the same flowpath.

Discovering one required EDG inoperable coincident with one or more inoperable required

INSERT B 3.8.1.1.c

Pursuant to LCO 3.0.6, the Distribution System ACTIONS would not be entered even if all AC sources to it were inoperable, resulting in de-energization. Therefore, ACTION c is modified by a note to indicate that when ACTION c is entered with no AC source to any train, the ACTIONs for LCO 3.8.3.1, Onsite Power Distribution - Operating," must be immediately entered. This allows ACTION c to provide requirements for the loss of one offsite circuit and one DG, without regard to whether a train is de-energized. LCO 3.8.3.1 provides the appropriate restrictions for a de-energized train.

3/4.8.1 AC SOURCES (Continued)

LIMITING CONDITION FOR OPERATION (LCO) (continued)

support or supported features, or both, that are associated with the OPERABLE EDG, results in starting the AOT for ACTION d. The 4-hour AOT from the discovery of these events existing concurrently is acceptable because it minimizes risk while allowing time for restoration before subjecting the unit to transients associated with shutdown.

While in this condition, the remaining OPERABLE EDG and offsite circuits are adequate to supply electrical power to the onsite Class 1E Distribution System. Though, on a component basis, single failure protection for the required feature's function may have been lost, however, the safety function has not been lost.

The 4-hour AOT takes into account the OPERABILITY of the redundant counterpart to the inoperable required feature, the capacity and capability of the remaining AC sources, a reasonable time for evaluation and repairs, and the low probability of a DBA occurring during this period.

If at any time during the existence of this condition (one EDG inoperable), a required feature subsequently becomes inoperable, the 4-hour AOT would begin to be tracked.

e.1

INSERT B 3.8.1.1.e

e. ACTION ~~e.~~, which applies when two offsite circuits are inoperable, is intended to provide assurance that an event with a coincident single failure will not result in a complete loss of redundant required safety functions

According to Regulatory Guide 1.93 (Ref. 6), operation may continue with two offsite AC power sources inoperable for a period that should not exceed 24 hours. This level of degradation means that the offsite electrical power system does not have the capability to effect a safe shutdown and to mitigate the effects of an accident; however, the onsite AC sources have not been degraded. This level of degradation generally corresponds to a total loss of the immediately accessible offsite power sources.

Because of the normally high availability of the offsite sources, this level of degradation may appear to be more severe than other combinations of two AC sources inoperable that involve one or more EDGs inoperable. However, two factors tend to decrease the severity of this level of degradation:

1. The configuration of the redundant AC electrical power system that remains available is not susceptible to a single bus or switching failure, and
2. The time required to detect and restore an unavailable off site power source is generally much less than that required to detect and restore an unavailable onsite AC source.

With both of the required offsite circuits inoperable, sufficient onsite AC sources are available to maintain the unit in a safe shutdown condition in the event of a DBA or transient. In fact, a simultaneous loss of offsite AC sources, a LOCA and a worst case single failure were postulated as a part of the design basis in the safety analysis. Thus, the 24-hour AOT provides a period of time to effect restoration of one of the offsite circuits commensurate with the importance of maintaining an AC electrical power system capable of meeting its design criteria.

According to Reference 6, with the available offsite AC sources, two less than required by the LCO, operation may continue for 24 hours. If two offsite sources are restored within 24 hours, unrestricted operation may continue. If only one offsite source is restored within 24 hours, power operation continues in accordance with ACTION a.

INSERT B 3.8.1.1.e

The completion time for this failure of redundant required features is reduced to 12 hours from that allowed for one train without offsite power (ACTION a.2). The rationale for the reduction to 12 hours is that Regulatory Guide 1.93 (Ref. 6) allows a completion time of 24 hours for two required offsite circuits inoperable based upon the assumption that two complete safety trains are OPERABLE. When a concurrent redundant required feature failure exists, this assumption is not the case, and a shorter completion time of 12 hours is appropriate. These features are powered from redundant AC safety trains. Single train features, such as turbine driven auxiliary feedwater pumps, are not included.

The completion time for ACTION e is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the completion time "clock." In this ACTION, the completion time only begins on discovery that both:

a. All required offsite circuits are inoperable, and

b. A required feature is inoperable.

If at any time while two offsite circuits are inoperable a required feature becomes inoperable, this completion time begins to be tracked.

3/4.8.1 AC SOURCES (Continued)

SURVEILLANCE REQUIREMENTS (SR) (continued)

SR 4.8.1.1.2f.15) demonstrates that while EDG 1A is loaded with its permanently connected loads and auto-connected emergency loads, that emergency bus E5 voltage and frequency remain within steady-state limits after manual energization of the 1500 hp startup feedwater pump (the largest manually-connected load).

The surveillance frequency is controlled under the Surveillance Frequency Control Program.

SR 4.8.1.1.2g

This surveillance demonstrates that the EDG starting independence has not been compromised. Also, this Surveillance demonstrates that each engine can achieve proper voltage and frequency within 10 seconds then steady-state condition when the EDGs are started simultaneously. The time, voltage and frequency for the EDG to reach steady state operation is monitored and the trend evaluated to identify degradation of governor and voltage regulator performance.

The SR also requires that the EDGs must be started from standby conditions, that is, with the engine coolant and oil continuously circulated and temperature maintained consistent with manufacturer recommendations at keep-warm values.

The surveillance frequency is controlled under the Surveillance Frequency Control Program.

MODES 5 AND 6

During operation in MODEs 5 and 6, the required AC sources include one off-site circuit capable of supplying the on-site Class 1E distribution system and an operable emergency diesel generator. These minimum AC sources ensure that (1) the unit can be maintained in the shutdown condition, (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit, and (3) adequate AC power is available to mitigate an event postulated to occur during shutdown.

If the minimum required AC sources are not operable, the action statement requires immediately suspending core alternation, positive reactivity changes, movement of irradiated fuel, and crane operation with loads over the fuel pool. With respect to suspending positive reactivity changes, operations that individually add limited, positive reactivity are acceptable when, combined with other actions that add negative reactivity, the overall net reactivity addition is zero or negative. For example, a positive reactivity addition caused by temperature fluctuations from inventory addition or temperature control fluctuations is acceptable if it is combined with a negative reactivity addition such that the overall, net reactivity addition is zero or negative. Refer to TS Bases 3/4.9.1, Boron Concentration, for limits on boron concentration and water temperature for MODE 6 action statements involving suspension of positive reactivity changes.

INSERT B 3.8.1.1 SD

INSERT B 3.8.1.1 SD

Pursuant to LCO 3.0.6, the Onsite Power Distribution ACTION would not be entered even if all AC sources to it are inoperable, resulting in de-energization. Therefore, the ACTION is modified by a Note to indicate that when the ACTION is entered with no AC power to any required ESF bus, the ACTIONS for LCO 3.8.3.2 must be immediately entered. This Note allows the ACTION in LCO 3.8.1.2 A to provide requirements for the loss of the offsite circuit, whether or not a train is de-energized. LCO 3.8.3.2 would provide the appropriate restrictions for the situation involving a de-energized train.

3/4.8.3 ONSITE POWER DISTRIBUTION (continued)

APPLICABILITY

The electrical power distribution subsystems are required to be OPERABLE in MODES 1, 2, 3, and 4 to ensure that:

- Acceptable fuel design limits and reactor coolant pressure boundary limits are not exceeded, and
- Adequate core cooling is provided, and containment OPERABILITY and other vital functions are maintained in the event of a postulated DBA.

The AC and DC electrical power distribution subsystems required to be OPERABLE in MODES 5 and 6 provide assurance that:

- Systems to provide adequate coolant inventory makeup are available for the irradiated fuel in the core,
- Systems needed to mitigate a fuel handling accident are available,
- Systems necessary to mitigate the effects of events that can lead to core damage during shutdown are available, and
- Instrumentation and control capability is available for monitoring and maintaining the unit in a cold shutdown and refueling condition.

ACTIONS

MODES 1 through 4

With the OPERABLE electrical buses less than required by LCO 3.8.3.1 and without a loss of safety function, the remaining electrical power distribution subsystems are capable of supporting the minimum safety functions necessary to shut down the reactor and maintain it in a safe shutdown condition, assuming no single failure. The overall reliability is reduced, however, because a single failure in the remaining power distribution subsystems could result in the minimum required ESF functions not being supported.

When a required electrical bus is not energized, the associated loads, such as ESF components normally powered from the electrical bus, must also be declared inoperable.

ACTION a is modified by a Note that requires the applicable ACTIONS of LCO 3.8.2.1 "DC Sources - Operating," be entered for DC trains made inoperable by inoperable power distribution subsystems. This is an exception to LCO 3.0.6 and ensures the proper actions are taken for these components. Inoperability of a distribution system can result in loss of charging power to batteries and eventual loss of DC power. This Note ensures that the appropriate attention is given to restoring charging power to batteries, if necessary, after loss of distribution systems.

Turkey Point Proposed Technical Specification Bases Changes (Mark-Up)

ATTACHMENT 2
Technical Specification Bases
(Page 16 of 193)

BASES FOR SECTIONS 3.0 AND 4.0
LIMITING CONDITIONS FOR OPERATION
AND
SURVEILLANCE REQUIREMENTS

NOTE

The BASES contained in succeeding pages summarize the reasons for the Specifications in Sections 3.0 and 4.0, but in accordance with 10 CFR 50.36 are **NOT** part of the Technical Specifications.

3/4.0 Applicability

Limiting Conditions for Operation

Specifications 3.0.1 through 3.0.6 establish the general requirements applicable to Limiting Conditions for Operation. Limiting Conditions for Operation apply at all times including during transients and accidents, unless otherwise specified. These requirements are based on the requirements for Limiting Conditions for Operation stated in the Code of Federal Regulations, 10 CFR 50.36(c)(2):

Limiting Conditions for Operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a Limiting Condition for Operation of a nuclear reactor is **NOT** met, the licensee shall shut down the reactor or follow any remedial action permitted by the Technical Specification until the condition can be met.

Specification 3.0.1 establishes the Applicability statement within each individual specification as the requirement for when ~~(i.e., in which OPERATIONAL MODES or other specified conditions) conformance to the Limiting Conditions for Operation is required for safe operation of the facility. The ACTION requirements establish those remedial measures that must be taken within specified time limits when the requirements of a Limiting Condition for Operation are **NOT** met.~~

the LCO is required to be met (i.e., when the unit is in the MODES or other specified conditions of the Applicability statement of each Specification).

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3/4.0 (Continued)

~~There are two basic types of ACTION requirements. The first specifies the remedial measures that permit continued operation of the facility which is **NOT** further restricted by the time limits of the ACTION requirements. In this case, conformance to the ACTION requirements provides an acceptable level of safety for unlimited continued operation as long as the ACTION requirements continue to be met. The second type of ACTION requirement specifies a time limit in which conformance to the conditions of the Limiting Condition for Operation must be met. This time limit is the allowable outage time to restore an inoperable system or component to OPERABLE status or for restoring parameters within specified limits. If these actions are **NOT** completed within the allowable outage time limits, a shutdown is required to place the facility in a MODE or condition in which the specification **NO** longer applies. It is **NOT** intended that the shutdown ACTION requirements be used as an operational convenience which permits (routine) voluntary removal of a systems or components from service in lieu of other alternatives that would **NOT** result in redundant systems or components being inoperable.~~

~~The specified time limits of the ACTION requirements are applicable from the point in time it is identified that a Limiting Condition for Operation is **NOT** met. The time limits of the ACTION requirements are also applicable when a system or component is removed from service for surveillance testing or investigation of operational problems. Individual specifications may include a specified time limit for the completion of a Surveillance Requirement when equipment is removed from service. In this case, the allowable outage time limits of the ACTION requirements are applicable when this limit expires if the surveillance has **NOT** been completed. When a shutdown is required to comply with ACTION requirements, the plant may have entered a MODE in which a new specification becomes applicable. In this case, the time limits of the ACTION requirements would apply from the point in time that the new specification becomes applicable if the requirements of the Limiting Condition for Operation are **NOT** met.~~

ATTACHMENT 2
Technical Specification Bases
(Page 18 of 193)

INSERT B 3.0.2

3/4.0 (Continued)

Specification 3.0.2 ~~establishes that noncompliance with a specification exists when the requirements of the Limiting Condition for Operation are **NOT** met and the associated ACTION requirements have **NOT** been implemented within the specified time interval. The purpose of this specification is to clarify that (1) Implementation of the ACTION requirements within the specified time interval constitutes compliance with a specification, and (2) Completion of the remedial measures of the ACTION requirements is **NOT** required when compliance with a Limiting Condition of Operation is restored within the time interval specified in the associated ACTION requirements.~~

Specification 3.0.3 establishes the shutdown ACTION requirements that must be implemented when a Limiting Condition for Operation is **NOT** met and the condition is **NOT** specifically addressed by the associated ACTION requirements. The purpose of this specification is to delineate the time limits for placing the unit in a safe shutdown MODE when plant operation cannot be maintained within the limits for safe operation defined by the Limiting Conditions for Operation and its ACTION requirements. It is **NOT** intended to be used as an operational convenience which permits (routine) voluntary removal of redundant systems or components from service in lieu of other alternatives that would **NOT** result in redundant systems or components being inoperable. One hour is allowed to prepare for an orderly shutdown before initiating a change in plant operation. This time permits the operator to coordinate the reduction in electrical generation with the load dispatcher to ensure the stability and availability of the electrical grid. The time limits specified to reach lower MODES of operation permit the shutdown to proceed in a controlled and orderly manner that is well within the specified maximum cooldown rate and within the cooldown capabilities of the facility assuming only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the primary coolant system and the potential for a plant upset that could challenge safety systems under conditions for which this specification applies.

INSERT B 3.0.2

establishes that upon discovery of a failure to meet an LCO, the associated ACTIONS shall be met. The completion time of each ACTION is applicable from the point in time that an ACTION is entered. The ACTIONS establish those remedial measures that must be taken within the specified completion times when the requirements of an LCO are not met. This Specification establishes that:

a. Completion of the ACTIONS within the specified completion times constitutes compliance with a Specification, and

b. Completion of the ACTIONS is not required when an LCO is met within the specified completion time, unless otherwise specified.

There are two basic types of ACTIONS. The first type of ACTION specifies a time limit in which the LCO must be met. This time limit is the completion time to restore an inoperable system or component to OPERABLE status or to restore variables to within specified limits. If this type of ACTION is not completed within the specified completion time, a shutdown may be required to place the unit in a MODE or condition in which the Specification is not applicable. (Whether stated as an ACTION or not, correction of the condition that necessitated entered the ACTION is an action that may always be considered upon entering ACTIONS.) The second type of ACTION specifies the remedial measures that permit continued operation of the unit that is not further restricted by the completion time. In this case, compliance with the ACTIONS provides an acceptable level of safety for continued operation.

Completing the ACTIONS is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.

The completion times of the ACTIONS are also applicable when a system or component is removed from service intentionally. The reasons for intentionally relying on the ACTIONS include, but are not limited to, performance of Surveillances, preventive maintenance, corrective maintenance, or investigation of operational problems. Entering ACTIONS for these reasons must be done in a manner that does not compromise safety. Intentional entry into ACTIONS should not be made for operational convenience. Additionally, if intentional entry into ACTIONS would result in redundant equipment being inoperable, alternatives should be used instead. Doing so limits the time both subsystems/trains of a safety function are inoperable and limits the time conditions exist which may result in LCO 3.0.3 being entered. Individual Specifications may specify a time limit for performing a Surveillance Requirement when equipment is removed from service or bypassed for testing. In this case, the completion times of the ACTIONS are applicable when this time limit expires, if the equipment remains removed from service or bypassed.

When a change in MODE or other specified condition is required to comply with ACTIONS, the unit may enter a MODE or other specified condition in which another Specification becomes applicable. In this case, the completion times of the associated ACTIONS would apply from the point in time that the new Specification becomes applicable, and the ACTIONS are entered.

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3/4.0 (Continued)

Administrative Controls, such as test procedures, ensure the time the equipment is returned to service in conflict with the ACTION requirements is limited to the time absolutely necessary to perform the required testing to demonstrate OPERABILITY. LCO 3.0.6 does **NOT** provide time to perform any other preventive or corrective maintenance.

An example of demonstrating the OPERABILITY of the equipment being returned to service is reopening a containment isolation valve that was closed to comply with TS action requirements. The valve must be reopened to perform the testing required to demonstrate OPERABILITY.

An example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system.

A similar example of demonstrating OPERABILITY of the other equipment is taking an inoperable channel or trip system out of the tripped condition to permit the logic to function and indicate the appropriate response during the performance of required testing on another channel in the same trip system.

Temporarily returning inoperable equipment to service for the purpose of confirming OPERABILITY, places the plant in a condition which has been previously evaluated in the development of the current Technical Specifications and determined to be acceptable for short periods as prescribed by allowed outage times in ACTION requirements. Performance of the surveillance/testing is considered to be a confirmatory check of that capability which demonstrates that the equipment is indeed operable in most cases. For those times when equipment, which may be temporarily returned to service under administrative controls per LCO 3.0.6, is subsequently determined to remain inoperable, the Technical Specification ACTION requirements continue to apply until the equipment is determined OPERABLE.

INSERT B 3.0.7

INSERT B 3.0.7

Specification 3.0.7 establishes an exception to LCO 3.0.2 for supported systems that have a support system LCO specified in the Technical Specifications (TS). This exception is provided because LCO 3.0.2 would require that the ACTIONS of the associated inoperable supported system LCO be entered solely due to the inoperability of the support system. This exception is justified because the actions that are required to ensure the unit is maintained in a safe condition are specified in the support system LCO's ACTIONS. These ACTIONS may include entering the supported system's ACTIONS or may specify other ACTIONS.

When a support system is inoperable and there is an LCO specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' ACTIONs unless directed to do so by the support system's ACTION. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCOs' ACTION are eliminated by providing all the actions that are necessary to ensure the unit is maintained in a safe condition in the support system's ACTIONs.

However, there are instances where a support system's ACTION may either direct a supported system to be declared inoperable or direct entry into the ACTIONs for the supported system. This may occur immediately or after some specified delay to perform some other ACTION. Regardless of whether it is immediate or after some delay, when a support system's ACTION directs a supported system to be declared inoperable or directs entry into ACTIONS for a supported system, the applicable ACTIONS shall be entered in accordance with Specification 3.0.1.

Specification 6.8.4.n, "Safety Function Determination Program (SFDP)," ensures loss of safety function is detected and appropriate actions are taken. Upon entry into LCO 3.0.7, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system ACTIONs. The SFDP implements the requirements of LCO 3.0.7.

The following examples use Figure B 3.0-1 to illustrate loss of safety function conditions that may result when a TS support system is inoperable. In this figure, the fifteen systems that comprise Train A are independent and redundant to the fifteen systems that comprise Train B. To correctly use the figure to illustrate the SFDP provisions for a cross train check, the figure establishes a relationship between support and supported systems as follows: the figure shows System 1 as a support system for System 2 and System 3; System 2 as a support system for System 4 and System 5; and System 4 as a support system for System 8 and System 9. Specifically, a loss of safety function may exist when a support system is inoperable and:

a. A system redundant to system(s) supported by the inoperable support system is also inoperable (EXAMPLE B 3.0.7-1),

b. A system redundant to system(s) in turn supported by the inoperable supported system is also inoperable (EXAMPLE B 3.0.7-2), or
c. A system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable (EXAMPLE B 3.0.7-3).

For the following examples, refer to Figure B 3.0-1.

EXAMPLE B 3.0.7-1

If System 2 of Train A is inoperable and System 5 of Train B is inoperable, a loss of safety function exists in Systems 5, 10, and 11.

EXAMPLE B 3.0.7-2

If System 2 of Train A is inoperable, and System 11 of Train B is inoperable, a loss of safety function exists in System 11.

EXAMPLE B 3.0.7-3

If System 2 of Train A is inoperable, and System 1 of Train B is inoperable, a loss of safety function exists in Systems 2, 4, 5, 8, 9, 10 and 11.

If an evaluation determines that a loss of safety function exists, the appropriate ACTIONS of the LCO in which the loss of safety function exists are required to be entered.

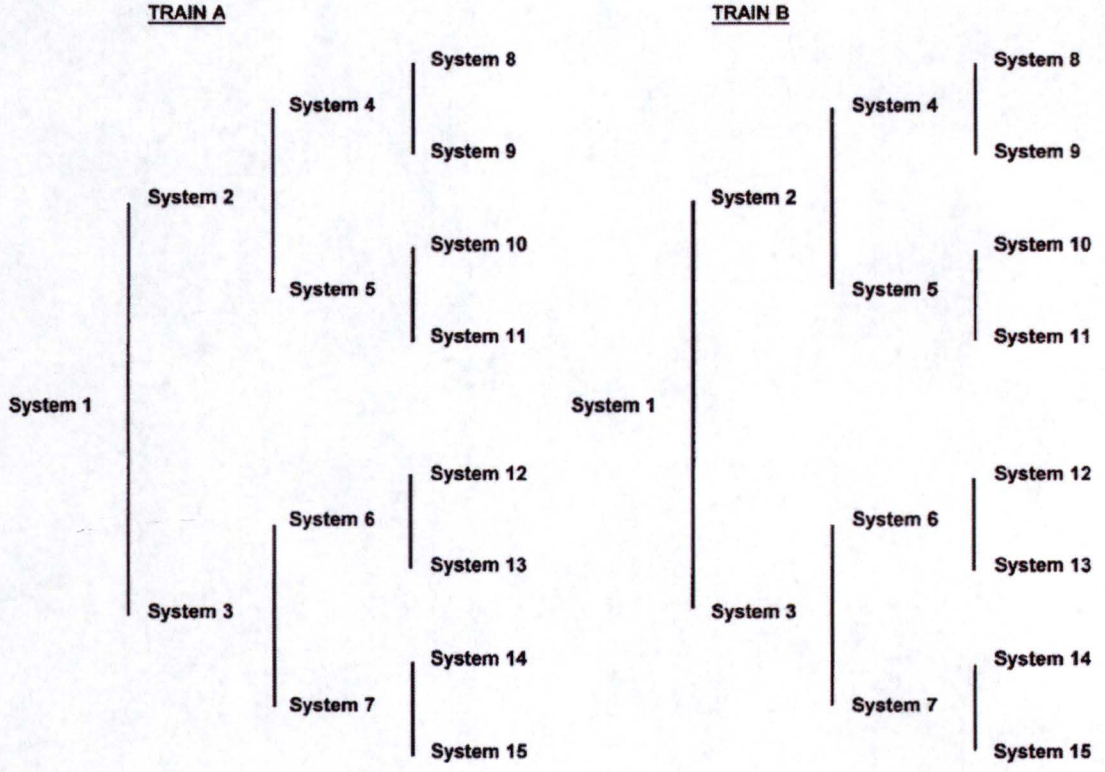

Figure B 3.0-1
Configuration of Trains and Systems

This loss of safety function does not require the assumption of additional single failures or loss of offsite power. Since operations are being restricted in accordance with the ACTIONS of the support system, any resulting temporary loss of redundancy or single failure protection is taken into account. Similarly, the ACTIONS for inoperable offsite circuit(s) and inoperable diesel generator(s) provide the necessary restriction for cross train inoperabilities. This explicit cross train verification for inoperable AC electrical power sources also acknowledges that supported system(s) are not declared inoperable solely as a result of inoperability of a normal or emergency electrical power source (refer to the definition of OPERABILITY).

When loss of safety function is determined to exist, and the SFDP requires entry into the appropriate ACTIONS of the LCO in which the loss of safety function exists, consideration must be given to the specific type of function affected. Where a loss of function is solely due to a single TS support system (e.g., loss of automatic start due to inoperable instrumentation, or loss of pump suction source due to low tank level), the appropriate LCO is the LCO for the support system. The ACTIONS for a support system LCO adequately address the inoperabilities of that system without reliance on entering its supported system LCO. When the loss of function is the result of multiple support systems, the appropriate LCO is the LCO for the supported system.

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3/4.4.6.2 (Continued)

The note that modifies ACTION c requires an evaluation of affected systems if a pressure isolation valve is inoperable. The leakage may have affected system operability or isolation of a leaking flow path with an alternate valve may have degraded the ability of the interconnected system to perform its safety function.

ACTIONS

Action a.

If any PRESSURE BOUNDARY LEAKAGE exists, or primary to secondary leakage is **NOT** within limit, the reactor must be brought to lower pressure conditions to reduce the severity of the leakage and its potential consequences. It should be noted that Leakage past seals and gaskets is **NOT** PRESSURE BOUNDARY LEAKAGE. The reactor must be brought to HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours. This ACTION reduces the leakage and also reduces the factors that tend to degrade the pressure boundary.

Action b.

UNIDENTIFIED LEAKAGE or IDENTIFIED LEAKAGE in excess of the LCO limits must be reduced to within the limits within 4 hours. This allowable outage time allows time to verify leakage rates and either identify UNIDENTIFIED LEAKAGE or reduce leakage to within limits before the reactor must be shut down. This ACTION is necessary to prevent further deterioration of the RCPB.

Action c.

The leakage from any RCS Pressure Isolation Valve is sufficiently low to ensure early detection of possible in-series valve failure. It is apparent that when pressure isolation is provided by two in-series valves and when failure of one valve in the pair can go undetected for a substantial length of time, verification of valve integrity is required. With one or more RCS Pressure Isolation Valves with leakage greater than that allowed by Specification 3.4.6.2.e, within 4 hours, at least two valves in each high pressure line having a non-functional valve must be closed and remain closed to isolate the affected lines. In addition, the ACTION statement for the affected system must be followed and the leakage from the remaining pressure isolation valves in each high pressure line having a valve **NOT** meeting the criteria of Table 3.4-1 shall be recorded daily. If these requirements are **NOT** met, the reactor must be brought to at least HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours.

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3/4.6.1.3 (Continued)

At this point the door is still physically restrained from opening, but the seating pressure against the o-ring seal may have been reduced such that the door seal is in an untested configuration, potentially creating a leakage path. In this configuration, the door is considered closed per the Technical Specifications and would satisfy the interlock test requirements, but the overall air lock leakage requirement may have been invalidated. This configuration would result in an inoperable airlock door since the O-ring seal was **NOT** properly compressed. As there is **NO** functional difference between an unsecured door and a leaking door (as far as maintenance of containment integrity is concerned), the unsecured door must be considered inoperable.

3/4.6.1.4 Internal Pressure

The limitations on Containment Internal Pressure ensure that: (1) The containment structure is prevented from exceeding its design negative pressure differential of 2.5 psig with respect to the outside atmosphere, and (2) The containment peak pressure does **NOT** exceed the design pressure of 55 psig during LOCA conditions.

3/4.6.1.5 Air Temperature

The limitations on containment average air temperature ensure that the design limits for a LOCA are **NOT** exceeded, and that the environmental qualification of equipment is **NOT** impacted. If temperatures exceed 120°F, but remain below 125°F for up to 336 hours during a calendar year, **NO** action is required. If the 336-hour limit is approached, an evaluation may be performed to extend the limit if some of the hours have been spent at less than 125°F. Measurements shall be made at all listed locations, whether by fixed or portable instruments, prior to determining the average air temperature.

In the event the air lock leakage results in exceeding the overall containment leakage rate, the Note directs entry into the ACTION of LCO 3.6.1.2, "Containment Leakage."

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3/4.6.3 Deleted

3/4.6.4 Containment Isolation Valves

The OPERABILITY of the Containment Isolation Valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment. Containment isolation within the time limits specified in the In-Service Testing Program is consistent with the assumed isolation times of those valves with specific isolation times in the LOCA analysis.

Note that Tech Spec 3.6.4 applies only to automatic Containment Isolation Valves. Automatic Containment Isolation Valves are valves, which close automatically on a Containment Isolation Phase A signal, Containment Phase B, or a Containment Ventilation Isolation signal, and check valves.

The ACTIONs are modified by two notes. The first Note ensures that appropriate remedial actions are taken, if necessary, if the affected systems are rendered inoperable by an inoperable containment isolation valve. In the event the isolation valve leakage results in exceeding the overall containment leakage rate, the second Note directs entry into the ACTION of LCO 3.6.1.2.

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3/4.7.2 Component Cooling Water System

During MODES 1, 2, 3, and 4, the OPERABILITY of the Component Cooling Water System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The redundant cooling capacity of this system, assuming a single active failure, is consistent with the assumptions used in the safety analyses. One pump and two heat exchangers provide the heat removal capability for accidents that have been analyzed.

The third safety related D switchgear, utilized as a swing bus, and manually aligned to either the A or B 4.16 kV bus of its respective unit is considered an extension of that power supply bus. The third (C) CCW pump of each unit, when powered from its associated unit's D bus, may be utilized to provide the T.S. independent power supply operability requirement when a pump is out of service. The most limiting single active failure considered was the loss of one diesel, which results in only one required CCW pump starting automatically to mitigate the consequences of the MHA. However, the C pump is interlocked, and for a start signal to initiate on a loss of offsite power or safety injection signal, the supply breaker for the A or B CCW pump (associated with the A or B 4kV Bus to which it is aligned) must be OPEN and RACKED OUT. Technical Specification ACTION statements may be invoked for **NOT** ensuring that the second operable pump is powered from an independent safety related bus.

During MODES 5 and 6, the Component Cooling Water System has no OPERABILITY requirements (Reference AR 01744253 CE). During these MODES, the Component Cooling Water System is required to be functional, or capable of performing its specified function.

The ACTIONS are modified by a Note indicating that the applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," be entered if an inoperable CCW train results in an inoperable residual heat removal loop. This is an exception to LCO 3.0.7 and ensures the proper actions are taken for these components.

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3/4.7.3 Intake Cooling Water System

During MODES 1, 2, 3, and 4 the OPERABILITY of the Intake Cooling Water System ensures that sufficient cooling capacity is available for continued operation of safety-related equipment during normal and accident conditions. The design and operation of this system, assuming a single active failure, ensures cooling capacity consistent with the assumptions used in the safety analyses. The supply headers are redundant, but the return merges to a non-redundant discharge header that returns water to the discharge canal. The redundant ICW supply headers addresses the design for passive failure.

The third safety related D switchgear, utilized as a swing bus, and manually aligned to either the A or B 4.16 kV bus of its respective unit is considered an extension of that power supply bus. The third (C) ICW pump of each unit, when powered from its associated unit's D bus, may be utilized to provide the T.S. independent power supply operability requirement when a pump is out of service. The most limiting single active failure considered was the loss of one diesel, which results in only one required ICW pump starting automatically to mitigate the consequences of the MHA. However, the C pump is interlocked, and for a start signal to initiate on a loss of offsite power or safety injection signal, the supply breaker for the A or B ICW Pump (associated with the A or B 4kV Bus to which it is aligned) must be OPEN and RACKED OUT. Technical Specification ACTION statements may be invoked for **NOT** ensuring that the second operable pump is powered from an independent safety related bus.

During MODES 5 and 6, the Intake Cooling Water System has **NO** OPERABILITY requirements (Reference AR 01744253 CE). During these MODES, the Intake Cooling Water System is required to be functional or capable of performing its specified function.

The ACTIONS are modified by a Note indicating that the applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant System - Hot Shutdown," be entered if an inoperable ICW train results in an inoperable residual heat removal loop. This is an exception to LCO 3.0.7 and ensures the proper actions are taken for these components.

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3/4.8.1, 3/4.8.2 & 3/4.8.3 (Continued)

As each Startup Transformer only provides the limited equivalent power of approximately one EDG to the opposite unit's A-train 4160 volt bus, the allowable out-of-service time in TS 3.8.1.1, ACTION 'a' of 30 days has been applied before the opposite unit is required to be shutdown. A unit with an inoperable Startup Transformer or associated circuit can either reduce THERMAL POWER to less than or equal to 30% RATED THERMAL POWER within 24 hours and remain operating at reduced power for up to 30 days until the Startup Transformer and associated circuit is restored to OPERABLE status, or restore the inoperable Startup Transformer and associated circuit to OPERABLE status within the next 48 hours. If power is **NOT** reduced and the Startup Transformer and associated circuit is **NOT** restored to OPERABLE status within 72 hours of the discovery of inoperability, the unit must be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If power is reduced and the Startup Transformer and associated circuit is **NOT** restored to OPERABLE status within 30 days of the discovery of inoperability, the unit must be in HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 30 hours. The 30% RATED THERMAL POWER limit was chosen because at this power level the decay heat and fission product production has been reduced and the operators are still able to maintain automatic control of the Feedwater Trains and other unit equipment. At lower power levels, the operators must use manual control with the Feedwater Bypass lines. By **NOT** requiring a complete unit shutdown, the plant avoids a condition requiring natural circulation and avoids intentionally relying on engineered safety features for non-accident conditions.

INSERT B 3.8.1.1.a

INSERT B 3.8.1.1.a

ACTION a.2, which only applies if the train cannot be powered from an offsite source, is intended to provide assurance that an event coincident with a single failure of the associated DG will not result in a complete loss of safety function of critical redundant required features. These features are powered from the redundant AC electrical power train.

The completion time (also referred to as allowed outage time (AOT)) for ACTION a.2 is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the completion time "clock." In this ACTION, the completion time only begins on discovery that both:

a. The train has no offsite power supplying it loads and

b. A required feature on the other train is inoperable.

If at any time while one offsite circuit is inoperable a redundant required feature subsequently becomes inoperable, this completion time begins to be tracked. Discovering no offsite power to one train of the onsite Class 1E Electrical Power Distribution System coincident with one or more inoperable required support or supported features, or both, that are associated with the other train that has offsite power, results in starting the completion time for the ACTION. Twenty-four hours is acceptable because it minimizes risk while allowing time for restoration before subjecting the unit to transients associated with shutdown.

The remaining OPERABLE offsite circuit and DGs are adequate to supply electrical power to Train A and Train B of the onsite Class 1E Distribution System. The 24-hour completion time takes into account the component OPERABILITY of the redundant counterpart to the inoperable required feature. Additionally, the 24-hour completion time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.

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Technical Specification Bases
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3/4.8.1, 3/4.8.2 & 3/4.8.3 (Continued)

With one startup transformer and one of the three required EDGs inoperable, TS 3.8.1.1, ACTION 'c' applies. The unit with the inoperable transformer can either reduce THERMAL POWER to less than or equal to 30% RATED THERMAL POWER within 24 hours and remain operating at reduced power until the Startup Transformer is restored to OPERABLE status provided the inoperable EDG is made OPERABLE within 72 hours, or restore the inoperable Startup Transformer to OPERABLE status within the next 48 hours. If power is **NOT** reduced and the Startup Transformer is **NOT** restored to OPERABLE status within 72 hours of the discovery of inoperability, the unit must be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. TS 3.8.1.1, ACTION 'a', 'b', and 'c' apply concurrently until ACTION 'c' is exited by restoring a Startup Transformer or EDG to OPERABLE status. Because ACTION 'c' invokes ACTION 'a' it also applies to a Startup Transformer's inoperable associated circuit. The notification of a loss of Startup Transformers to the NRC (ACTION STATEMENT 3.8.1.1.c) is **NOT** a 10 CFR 50.72/50.73 requirement and as such will be made for information purposes only to the NRC Operations Center via commercial lines.

Pursuant to LCO 3.0.7, the Onsite Power Distribution System ACTIONS would not be entered even if all AC sources to it were inoperable, resulting in de-energization. Therefore, ACTION c is modified by a note to indicate that when ACTION c is entered with no AC source to any train, the ACTIONs for LCO 3.8.3.1, Onsite Power Distribution - Operating," must be immediately entered. This allows ACTION c to provide requirements for the loss of one offsite circuit and one DG, without regard to whether a train is de-energized. LCO 3.8.3.1 provides the appropriate restrictions for a de-energized train.

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Technical Specification Bases
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3/4.8.1, 3/4.8.2 & 3/4.8.3 (Continued)

For single unit operation (one unit in MODES 1-4 and one unit in Modes 5-6 or defueled) TS 3.8.1.1 ACTION d. refers to one of the three required Emergency Diesel Generators. For dual unit operation (both units in MODES 1-4), TS 3.8.1.1 ACTION d. refers to one of the four required Emergency Diesel Generators. This conclusion is based on the portion of ACTION d. that states "in addition to ACTION b. or c" Since ACTIONs b. and c. both refer to one of the required diesel generators, this implies that ACTION d. also refers to one of the required diesel generators. ACTION d. says "in addition to ACTION b. or c. above, ..." therefore, ACTION d. is merely providing additional requirements applicable to the conditions that required satisfaction of ACTIONs b. or c.

With both Startup Transformers inoperable, the units are required to be shutdown consecutively, after 24 hours. A consecutive shutdown is used because a unit without its associated transformer must perform a natural circulation cooldown. By placing one unit in COLD SHUTDOWN before starting shutdown of the second unit, a dual unit natural circulation cooldown is avoided.

INSERT B 3.8.1.1.E

The term verify means to administratively check by examining logs or other information to determine if required components are out-of-service for maintenance or other reasons. It does **NOT** mean to perform the surveillance requirements needed to demonstrate the OPERABILITY of the component.

In accordance with Technical Specification Amendments 215/209 during MODES 1, 2, and 3, if an EDG is to be removed from service for maintenance for a period scheduled to exceed 72 hours, the following restrictions apply:

If an EDG is unavailable, the Startup Transformer will be removed from service only for corrective maintenance, i.e., maintenance required to ensure or restore operability.

If the Startup Transformer is unavailable, an EDG will be removed from service only for corrective maintenance, i.e., maintenance required to ensure or restore operability.

INSERT B 3.8.1.1.e

ACTION e.2, which applies when two startup transformers or their associated circuits are inoperable, is intended to provide assurance that an event with a coincident single failure will not result in a complete loss of redundant required safety functions. The completion time for this failure of redundant required features is reduced to 12 hours from that allowed for one train without offsite power (ACTION a.2). The rationale for the reduction to 12 hours is that Regulatory Guide 1.93 allows a completion time of 24 hours for two required offsite circuits inoperable, based upon the assumption that two complete safety trains are OPERABLE. When a concurrent redundant required feature failure exists, this assumption is not the case, and a shorter completion time of 12 hours is appropriate. These features are powered from redundant AC safety trains. Single train features, such as turbine driven auxiliary pumps, are not included in the list.

The completion time for ACTION e.2 is intended to allow the operator time to evaluate and repair any discovered inoperabilities. This completion time also allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." In this ACTION, the completion time only begins on discovery that both:

a. All required offsite circuits are inoperable and

b. A required feature is inoperable.

If at any time while two offsite circuits are inoperable a required feature becomes inoperable, this completion time begins to be tracked.

ATTACHMENT 2
Technical Specification Bases
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3/4.8.1, 3/4.8.2 & 3/4.8.3 (Continued)

The frequency for performing surveillance on stored fuel oil is based on stored fuel oil degradation trends which indicate that particulate concentration is unlikely to change significantly between surveillances.

The OPERABILITY of the minimum specified A.C. and D.C. Power Sources and associated distribution systems during shutdown and refueling ensures that (1) The facility can be maintained in the shutdown or refueling condition for extended time periods, and (2) Sufficient instrumentation and control capability is available for monitoring and maintaining the unit status.

INSERT B 3.8.1.2.SD

During a unit shutdown, the one required circuit between the offsite transmission network and the onsite Class 1E Distribution System can consist of at least the associated unit startup transformer feeding one 4160 volt Bus A or B, or the opposite unit's startup transformer feeding the associated unit's 4160 volt Bus A, or the associated unit's 4160 volt Bus A or B backfed through its auxiliary transformers with the main generator isolated.

As inoperability of numerous electrical components often affects the operation of the opposite unit, the applicability for the shutdown LIMITING CONDITION FOR OPERATION (LCO) for A.C. Sources, D.C. Sources and Onsite Power Distribution all contain statements to ensure the LCOs of the opposite unit are considered.

INSERT B 3.8.3.1

The allowable out-of-service time for the D.C. busses is 24 hours with one unit shutdown in order to allow for required battery maintenance without requiring both units to be shutdown. Provisions to substitute the spare battery for any one of the four station batteries have been included to allow for battery maintenance without requiring both units to be shutdown. The requirement to have only one OPERABLE battery charger associated with a required battery bank permits maintenance to be conducted on the redundant battery charger.

A battery charger may be considered acceptable when supplying less than 10 amperes provided:

1) The battery charger's ability to independently accept and supply the D.C. bus has been verified within the previous 7 days and,

2) D.C. output voltage is $\geq$ 129 volts.

INSERT B 3.8.1.2 SD

Pursuant to LCO 3.0.7, the Distribution System's ACTIONs would not be entered even if all AC sources to it were inoperable, resulting in de-energization. Therefore, the ACTION in LCO 3.8.1.2, "A.C. Sources – Shutdown," is modified by a Note to indicate that when the ACTION is entered with no AC power to any required ESF bus, the ACTIONS of LCO 3.8.3.2 must be immediately entered. This Note allows the ACTION in LCO 3.8.1.2 to provide requirements for the loss of the offsite circuit, whether or not a train is de-energized. LCO 3.8.3.2 would provide the appropriate restrictions for the situation involving a de-energized train.

INSERT B 3.8.3.1

LCO 3.8.3.1, ACTION a is modified by a Note that requires the applicable ACTIONS of LCO 3.8.2 "DC Sources - Operating," be entered for DC trains made inoperable by inoperable power distribution subsystems. This is an exception to LCO 3.0.7 and ensures the proper actions are taken for these components. Inoperability of a distribution system can result in loss of charging power to batteries and eventual loss of DC power. This Note ensures that the appropriate attention is given to restoring charging power to batteries, if necessary, after loss of distribution systems.

ATTACHMENT 3

Table of Support System Actions that Direct Entering Actions of Supported Systems

St. Lucie Units 1 & 2

Table of Support System Actions that Direct Entering Actions of Supported Systems

ATTACHMENT 3

Table of Support System Actions that Direct Entering Actions of Supported Systems (St. Lucie)

ISTS LCO	ISTS Action or Note	St. Lucie Unit 1 TS LCO St. Lucie Unit 2 TS LCO	St. Lucie Unit 1 Proposed TS Action or Note St. Lucie Unit 2 Proposed TS Action or Note
3.3.6, Diesel Generator – Loss of Voltage Start	B.1 Enter applicable Conditions and Required Actions for the associated DG made inoperable by DG – LOVS instrumentation. D.1 Enter applicable Conditions and Required Actions for the associated DG made inoperable by DG - LOVS instrumentation.	N/A	St. Lucie Unit 1 & 2 TS do not include an LCO for Diesel Generator – Loss of Voltage Start
3.3.7, Containment Purge Isolation Signal	B.2 Enter applicable Conditions and Required Actions for affected valves of LCO 3.9.3, "Containment Penetrations," made inoperable by isolation instrumentation.	N/A	St. Lucie Unit 1 & 2 TS do not include an LCO for Containment Purge Isolation Signal
3.4.14, RCS Pressure Isolation Valve Leakage	----------NOTE---------- 2. Enter applicable Conditions and Required Actions for systems made inoperable by an inoperable PIV.	3.4.6.2, Reactor Coolant System Leakage	Proposed note to Action c: Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.
		Same as Unit 1	Same as Unit 1
3.6.2, Containment Air Locks	A.1 ----------NOTE---------- 3. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when leakage results in exceeding the overall containment leakage rate acceptance criteria.	3.6.1.3, Containment Air Locks	Proposed note to Actions: Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate.
		Same as Unit 1	Same as Unit 1

ATTACHMENT 3

Table of Support System Actions that Direct Entering Actions of Supported Systems (St. Lucie)

ISTS LCO	ISTS Action or Note	St. Lucie Unit 1 TS LCO St. Lucie Unit 2 TS LCO	St. Lucie Unit 1 Proposed TS Action or Note St. Lucie Unit 2 Proposed TS Action or Note
3.6.3, Containment Isolation Valves	----------NOTES---------- 3. Enter applicable Conditions and Required Actions for system(s) made inoperable by containment isolation valves. 4. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when leakage results in exceeding the overall containment leakage rate acceptance criteria.	3.6.3.1, Containment Isolation Valves	Proposed notes to Actions: 1. Enter applicable ACTIONS for systems made inoperable by containment isolation valves. 2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.
		3.6.3, Containment Isolation Valves	Same as Unit 1
3.7.7, Component Cooling Water	A.1 ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops - MODE 4," for shutdown cooling made inoperable by CCW.	3.7.3.1, Component Cooling Water System	Proposed note to Action: Enter applicable ACTION of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for shutdown cooling loop made inoperable by component cooling water.
		3.7.3, Component Cooling Water	Same as Unit 1

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Table of Support System Actions that Direct Entering Actions of Supported Systems (St. Lucie)

ISTS LCO	ISTS Action or Note	St. Lucie Unit 1 TS LCO St. Lucie Unit 2 TS LCO	St. Lucie Unit 1 Proposed TS Action or Note St. Lucie Unit 2 Proposed TS Action or Note
3.7.8, Service Water System	A.1 ----------NOTES---------- 1. Enter applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources - Operating," for emergency diesel generator made inoperable by SWS.	3.7.4.1, Intake Cooling Water System	No change required. The St. Lucie emergency diesel generators are not cooled by intake cooling water.
		3.7.4, Intake Cooling Water System	
	2. Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops-MODE 4," for shutdown cooling made inoperable by SWS.	3.7.4.1, Intake Cooling Water System	Proposed note to Action: Enter applicable ACTION of LCO 3.4.1.3, "Reactor Coolant System – Hot Shutdown," for shutdown cooling loop made inoperable by intake cooling water.
		3.7.4, Intake Cooling Water System	Same as Unit 1

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Table of Support System Actions that Direct Entering Actions of Supported Systems (St. Lucie)

ISTS LCO	ISTS Action or Note	St. Lucie Unit 1 TS LCO St. Lucie Unit 2 TS LCO	St. Lucie Unit 1 Proposed TS Action or Note St. Lucie Unit 2 Proposed TS Action or Note
3.8.1, AC Sources - Operating	A.2 Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.	3.8.1.1 A.C. Sources - Operating	Proposed change to Action a to add: Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s);
		Same as Unit 1	Same as Unit 1
	B.2 Declare required feature(s) supported by the inoperable DG inoperable when its redundant required feature(s) is inoperable.	3.8.1.1 A.C. Sources - Operating	No change required. St. Lucie TS 3.8.1.1 Action b directs declaring required feature(s) supported by the inoperable EDG inoperable if its redundant required feature(s) is inoperable.
		3.8.1.1 A.C. Sources - Operating	
	C.1 Declare required feature(s) inoperable when its redundant required feature(s) is inoperable.	3.8.1.1 A.C. Sources - Operating	Proposed change to Action d to add: Declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery two offsite circuits inoperable concurrent with inoperability of redundant required feature(s);
		Same as Unit 1	Same as Unit 1

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Table of Support System Actions that Direct Entering Actions of Supported Systems (St. Lucie)

ISTS LCO	ISTS Action or Note	St. Lucie Unit 1 TS LCO St. Lucie Unit 2 TS LCO	St. Lucie Unit 1 Proposed TS Action or Note St. Lucie Unit 2 Proposed TS Action or Note
3.8.1, AC Sources - Operating	----------NOTE---------- D. Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems - Operating," when Condition D is entered with no AC power source to any train	3.8.1.1 A.C. Sources - Operating	Proposed Note to Action c: Enter applicable ACTIONs of LCO 3.8.2.1, A.C. Distribution - Operating," when ACTION c is entered with no AC power to any train.
		3.8.1.1 A.C. Sources - Operating	Enter applicable ACTIONs of LCO 3.8.3.1, Onsite Power Distribution - Operating," when ACTION c is entered with no AC power to any train.
3.8.2, AC Sources - Shutdown	----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.10, with one required train de-energized as a result of Condition A. ----------	3.8.1.2, A.C. Sources - Shutdown	Proposed Note to Action: Enter the ACTION of LCO 3.8.2.2, A.C. Distribution – Shutdown, with one required train de-energized as a result of inoperable offsite circuit.
		3.8.1.2, A.C. Sources - Shutdown	Proposed Note to Action: Enter the ACTION of LCO 3.8.3.2, Onsite Power Distribution – Shutdown, with one required train de-energized as a result of inoperable offsite circuit.
	A.1 Declare affected required feature(s) with no offsite power available inoperable	3.8.1.2, A.C. Sources - Shutdown	No change. Action A.1 in the ISTS is included as an alternative.
		Same as Unit 1	Same as Unit 1

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Table of Support System Actions that Direct Entering Actions of Supported Systems (St. Lucie)

ISTS LCO	ISTS Action or Note	St. Lucie Unit 1 TS LCO St. Lucie Unit 2 TS LCO	St. Lucie Unit 1 Proposed TS Action or Note St. Lucie Unit 2 Proposed TS Action or Note
3.8.3, Diesel Fuel Oil, Lube Oil, and Starting Air	F.1 Declare associated DG inoperable	N/A	St. Lucie Unit 1 & 2 TS do not include an LCO for Diesel Fuel Oil, Lube Oil, and Starting Air
3.8.6, Battery Parameters	F.1 Declare associated battery inoperable	N/A	St. Lucie Unit 1 & 2 TS do not include an LCO for battery parameters.
3.8.7, Inverters – Operating	A.1 ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems – Operating," with any vital bus de-energized.	N/A	St. Lucie Unit 1 & 2 TS do not include an LCO Inverters - Operating
3.8.8, Inverters – Shutdown	A.1 Declare affected required feature(s) inoperable.	N/A	St. Lucie Unit 1 & 2 TS do not include an LCO Inverters - Shutdown
3.8.9, Distribution Systems - Operating	A.1 ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.4, "DC Sources - Operating," for DC trains made inoperable by inoperable power distribution subsystems.	3.8.2.1, A.C. Distribution - Operating	Proposed note to Action a: Enter applicable ACTION of LCO 3.8.2.3, "D.C. Distribution - Operating," for DC trains made inoperable by inoperable AC power distribution system.
		3.8.3.1, Onsite Power Distribution - Operating,"	Proposed note to Action a: Enter applicable ACTION of LCO 3.8.2.1, "D.C. Sources - Operating," for DC trains

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Table of Support System Actions that Direct Entering Actions of Supported Systems (St. Lucie)

ISTS LCO	ISTS Action or Note	St. Lucie Unit 1 TS LCO St. Lucie Unit 2 TS LCO	St. Lucie Unit 1 Proposed TS Action or Note St. Lucie Unit 2 Proposed TS Action or Note
			made inoperable by inoperable AC power distribution system.
3.8.10, Distribution Systems – Shutdown	A.1 Declare associated supported required feature(s) inoperable	3.8.2.2, A.C. Distribution – Shutdown 3.8.3.2, Onsite Power Distribution - Shutdown	No change. Action A.1 in the ISTS is included as an alternative.

Seabrook

Table of Support System Actions that Direct Entering Actions of Supported Systems

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Table of Support System Actions that Direct Entering Actions of Supported Systems (Seabrook)

ISTS LCO	ISTS Action or Note	Seabrook TS LCO	Seabrook Proposed TS Action or Note
3.3.5, LOP DG Start Instrumentation	C.1 Enter applicable Condition(s) and Required Action(s) for the associated DG made inoperable by LOP DG start instrumentation.	N/A	Seabrook TS do not include an LCO for LOP DG Start Instrumentation.
3.3.6,Containment Purge and Exhaust Isolation Instrumentation	B.1 Enter applicable Conditions and Required Actions of LCO 3.6.3, "Containment Isolation Valves," for containment purge and exhaust isolation valves made inoperable by isolation instrumentation. C.2 Enter applicable Conditions and Required Actions of LCO 3.9.4, "Containment Penetrations," for containment purge and exhaust isolation valves made inoperable by isolation instrumentation	N/A	Seabrook TS do not include an LCO for Containment Purge and Exhaust Isolation Instrumentation.
3.3.7, CREFS Actuation Instrumentation	B.1.2 Enter applicable Conditions and Required Actions for one CREFS train made inoperable by inoperable CREFS actuation instrumentation.	N/A	Seabrook TS do not include an LCO for CREFS Actuation Instrumentation.
3.3.8, FBACS Actuation Instrumentation	B.1.2 Enter applicable Conditions and Required Actions of LCO 3.7.13, "Fuel Building Air Cleanup System (FBACS)," for one train made inoperable by inoperable actuation instrumentation.	N/A	Seabrook TS do not include an LCO for FBACS Actuation Instrumentation
3.4.14, RCS PIV Leakage	2. Enter applicable Conditions and Required Actions for systems made inoperable by an inoperable PIV.	3.4.6.2, Reactor Coolant System Leakage	Proposed note to Action c: Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.

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Table of Support System Actions that Direct Entering Actions of Supported Systems (Seabrook)

ISTS LCO	ISTS Action or Note	Seabrook TS LCO	Seabrook Proposed TS Action or Note
3.6.2, Containment Air Locks	3. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when air lock leakage results in exceeding the overall containment leakage rate.	3.6.1.3, Containment Air Locks	Proposed note to Actions: Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate.
3.6.3, Containment Isolation Valves	3. Enter applicable Conditions and Required Actions for systems made inoperable by containment isolation valves. 4. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.	3.6.3, Containment Isolation Valves	Proposed notes to Actions: 1. Enter applicable ACTIONs for systems made inoperable by containment isolation valves. 2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.
3.7.7, Component Cooling Water	A.1 ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops - MODE 4," for residual heat removal loops made inoperable by CCW.	3.7.3, Primary Component Cooling Water	Proposed note to Action: Enter applicable ACTIONS of LCO 3.4.1.3, "Reactor Coolant Loops and Coolant Circulation," for residual heat removal loop made inoperable by PCCW.
3.7.8, Service Water	A.1 ----------NOTES---------- 1. Enter applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources - Operating," for emergency diesel generator made inoperable by SWS. 2. Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops- MODE 4," for residual heat removal loops made inoperable by SWS.	3.7.4, Service Water/Ultimate Heat Sink	Proposed notes to Action: 1. Enter applicable ACTIONs of LCO 3.8.1.1, "AC Sources - Operating," for diesel generator made inoperable by service water. 2. Enter applicable ACTION of LCO 3.4.1.3, Reactor Coolant Loops and Coolant Circulation," for residual heat removal loop made inoperable by service

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Table of Support System Actions that Direct Entering Actions of Supported Systems (Seabrook)

ISTS LCO	ISTS Action or Note	Seabrook TS LCO	Seabrook Proposed TS Action or Note
			water.
3.8.1, AC Sources - Operating	A.2 Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.	3.8.1.1, AC Sources - Operating	Proposed change to Action a to add: Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s);
	B.2 Declare required feature(s) supported by the inoperable DG inoperable when its required redundant feature(s) is inoperable.		No change required. Action d provides the necessary restriction for cross train inoperabilities.
	C.1 Declare required feature(s) inoperable when its redundant required feature(s) is inoperable.		Proposed change to Action e to add: Declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery two offsite circuits inoperable concurrent with inoperability of redundant required feature(s);
	D. ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems - Operating," when Condition D is entered with no AC power source to any train.		Proposed Note to Action c: Enter applicable ACTIONs of LCO 3.8.3.1, Onsite Power Distribution - Operating," when ACTION c is entered with no AC power to any train.
3.8.2, AC Sources - Shutdown	A. ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.10, with one required train de-energized	3.8.1.2, A.C. Sources - Shutdown	Proposed note to Action: Enter the ACTION of LCO 3.8.3.2, "Onsite Power Distribution – Shutdown," when one required train de-energized as a

ATTACHMENT 3

Table of Support System Actions that Direct Entering Actions of Supported Systems (Seabrook)

ISTS LCO	ISTS Action or Note	Seabrook TS LCO	Seabrook Proposed TS Action or Note
	as a result of Condition A.		result of inoperable offsite circuit.
3.8.7, Inverters - Operating	A.1 ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems - Operating" with any AC vital bus deenergized.	N/A	Seabrook TS do not include an LCO for Inverters- Operating
3.8.9, Distribution Systems - Operating	A.1 ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.4, "DC Sources - Operating," for DC trains made inoperable by inoperable power distribution subsystems.	3.8.3.1, Onsite Power Distribution - Operating	Proposed note to Action a: Enter applicable ACTION of LCO 3.8.2.1, "DC Sources - Operating," for DC trains made inoperable by inoperable AC power distribution system.

Turkey Point

Table of Support System Actions that Direct Entering Actions of Supported Systems

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Table of Support System Actions that Direct Entering Actions of Supported Systems (Turkey Point)

ISTS LCO	ISTS Action or Note	Turkey Point TS LCO	Turkey Point Proposed TS Action or Note
3.3.5, LOP DG Start Instrumentation	C.1 Enter applicable Condition(s) and Required Action(s) for the associated DG made inoperable by LOP DG start instrumentation.	N/A	Turkey Point TS do not include an LCO for LOP DG Start Instrumentation.
3.3.6,Containment Purge and Exhaust Isolation Instrumentation	B.1 Enter applicable Conditions and Required Actions of LCO 3.6.3, "Containment Isolation Valves," for containment purge and exhaust isolation valves made inoperable by isolation instrumentation. C.2 Enter applicable Conditions and Required Actions of LCO 3.9.4, "Containment Penetrations," for containment purge and exhaust isolation valves made inoperable by isolation instrumentation	N/A	Turkey Point TS do not include an LCO for Containment Purge and Exhaust Isolation Instrumentation.
3.3.7, CREFS Actuation Instrumentation	B.1.2 Enter applicable Conditions and Required Actions for one CREFS train made inoperable by inoperable CREFS actuation instrumentation.	N/A	Turkey Point TS do not include an LCO for CREFS Actuation Instrumentation.
3.3.8, FBACS Actuation Instrumentation	B.1.2 Enter applicable Conditions and Required Actions of LCO 3.7.13, "Fuel Building Air Cleanup System (FBACS)," for one train made inoperable by inoperable actuation instrumentation.	N/A	Turkey Point TS do not include an LCO for FBACS Actuation Instrumentation
3.4.14, RCS PIV Leakage	2. Enter applicable Conditions and Required Actions for systems made inoperable by an inoperable PIV.	3.4.6.2, Reactor Coolant System Leakage	Proposed note to Action d: Enter applicable ACTIONS for systems made inoperable by an inoperable pressure isolation valve.

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Table of Support System Actions that Direct Entering Actions of Supported Systems (Turkey Point)

ISTS LCO	ISTS Action or Note	Turkey Point TS LCO	Turkey Point Proposed TS Action or Note
3.6.2, Containment Air Locks	3. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when air lock leakage results in exceeding the overall containment leakage rate.	3.6.1.3, Containment Air Locks	Proposed note to Actions: Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when air lock leakage results in exceeding the overall containment leakage rate.
3.6.3, Containment Isolation Valves	3. Enter applicable Conditions and Required Actions for systems made inoperable by containment isolation valves. 4. Enter applicable Conditions and Required Actions of LCO 3.6.1, "Containment," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.	3.6.4, Containment Isolation Valves	Proposed notes to Actions: 1. Enter applicable ACTIONs for systems made inoperable by containment isolation valves. 2. Enter the ACTION of LCO 3.6.1.2, "Containment Leakage," when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.
3.7.7, Component Cooling Water	A.1 ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops - MODE 4," for residual heat removal loops made inoperable by CCW.	3.7.2, Component Cooling Water	Proposed note to Action: Enter applicable ACTION of LCO 3.4.1.3, "Reactor Coolant System Hot Shutdown," for residual heat removal loop made inoperable by CCW.

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Table of Support System Actions that Direct Entering Actions of Supported Systems (Turkey Point)

ISTS LCO	ISTS Action or Note	Turkey Point TS LCO	Turkey Point Proposed TS Action or Note
3.7.8, Service Water	A.1 ----------NOTES---------- 1. Enter applicable Conditions and Required Actions of LCO 3.8.1, "AC Sources - Operating," for emergency diesel generator made inoperable by SWS.	3.7.3, Intake Cooling Water	No change required. The Turkey Point emergency diesel generators are not cooled by intake cooling water.
	2. Enter applicable Conditions and Required Actions of LCO 3.4.6, "RCS Loops- MODE 4," for residual heat removal loops made inoperable by SWS.		Proposed note to Action: Enter the applicable ACTIONS of LCO 3.4.13, "Reactor Coolant System Hot Shutdown," for residual heat removal loop made inoperable by intake cooling water.
3.8.1, AC Sources - Operating	A.2 Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable.	3.8.1.1, AC Sources - Operating	Proposed change to Action a to add: Declare required feature(s) with no offsite power available inoperable when its redundant required feature(s) is inoperable within 24 hours from discovery of no offsite power to one train concurrent with inoperability of redundant required feature(s);
	B.2 Declare required feature(s) supported by the inoperable DG inoperable when its required redundant feature(s) is inoperable.		No change required. Action d provides the necessary restriction for cross train inoperabilities.
	C.1 Declare required feature(s) inoperable when its redundant required feature(s) is inoperable.		Proposed change to Action e to add: Declare required feature(s) inoperable when its redundant required feature(s) is inoperable within 12 hours from discovery two offsite circuits inoperable concurrent with inoperability of redundant required

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Table of Support System Actions that Direct Entering Actions of Supported Systems (Turkey Point)

ISTS LCO	ISTS Action or Note	Turkey Point TS LCO	Turkey Point Proposed TS Action or Note
			feature(s);
	D. ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems - Operating," when Condition D is entered with no AC power source to any train.		Proposed Note to Action c: Enter applicable ACTIONs of LCO 3.8.3.1, Onsite Power Distribution - Operating," when ACTION c is entered with no AC power to any train.
3.8.7, Inverters - Operating	A.1 ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems - Operating" with any AC vital bus deenergized.	N/A	Turkey Point TS do not include an LCO for Inverters- Operating
3.8.9, Distribution Systems - Operating	A.1 ----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.4, "DC Sources - Operating," for DC trains made inoperable by inoperable power distribution subsystems.	3.8.3.1, Onsite Power Distribution - Operating	Proposed note to Action a: Enter applicable ACTION of LCO 3.8.2.1, "DC Sources - Operating," for DC trains made inoperable by inoperable power distribution system.