



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

February 3, 2004  
NOC-AE-04001668  
10CFR50.90

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

South Texas Project  
Units 1 and 2  
Docket Nos. STN 50-498 and STN 50-499  
License Amendment Request  
Proposed Revision to the Technical Specifications Regarding  
Mode Change Limitations Using the Consolidated Line Item Improvement Process

STP Nuclear Operating Company (STPNOC) submits the attached proposed amendment to South Texas Project Operating Licenses NPF-76 and NPF-80. This license amendment request proposes revising the Technical Specifications mode change limitations in Specifications 3.0.4 and 4.0.4 consistent with NRC-approved Industry/Technical Specification Task Force (TSTF) Traveler number TSTF-359, "Increase Flexibility in Mode Restraints." The availability of this Technical Specification improvement was announced in the Federal Register on April 4, 2003 as part of the Consolidated Line Item Improvement Process (CLIP).

STPNOC requests approval of the proposed amendment by April 5, 2004 and requests 30 days for implementation of the amendment after it is approved.

The STPNOC Plant Operations Review Committee has reviewed and concurred with the proposed change to the Technical Specifications.

STPNOC is submitting this license amendment request application as a result of a mutual agreement by an industry consortium of six plants known as Strategic Teaming and Resource Sharing (STARS). The STARS group consists of the six plants operated by TXU Energy, AmerenUE, Wolf Creek Nuclear Operating Corporation, Pacific Gas and Electric Company, STPNOC, and Arizona Public Service Company. Each of the STARS plants will be submitting a similar license amendment request on a staggered basis.

In accordance with 10 CFR 50.91(b), STPNOC is notifying the State of Texas of this license amendment request by providing a copy of this letter and its attachments.

A 001

STI: 31687614

If there are any questions regarding the proposed amendment, please contact Mr. S. M. Head at (361) 972-7136 or me at (361) 972-7902

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

Executed on February 3, 2004



T.J. Jordan  
Vice President,  
Engineering & Technical Services

jrm/

**Attachments:**

1. Description of Changes and Safety Evaluation
2. Annotated Technical Specification Pages
3. Technical Specifications Bases Changes (Information Only)
4. Retyped Technical Specification Pages

cc:

(paper copy)

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## **Attachment 1**

### **Description of Changes and Safety Evaluation**

## Description of Changes and Safety Evaluation

### 1.0 Description

The proposed amendment would modify Technical Specification (TS) requirements for mode change limitations in Specifications 3.0.4 and 4.0.4. The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) change TSTF-359, Revision 8, as modified by the notice in the Federal Register published on April 4, 2003 (incorporated into TSTF-359, Revision 9, which was approved by the NRC on May 12, 2003). That Federal Register Notice announced the availability of this TS improvement through the Consolidated Line Item Improvement Process (CLIIP).

Similar non-Improved Standard Technical Specification license amendment requests, which are based on the CLIIP, have been made by D.C. Cook and Limerick Generating Station in letters dated August 27, 2003, and September 8, 2003, respectively.

### 2.0 Assessment

#### 2.1 Applicability of Published Safety Evaluation

STP Nuclear Operating Company (STPNOC) has reviewed the safety evaluation dated August 2, 2002, as part of the CLIIP. This review included the NRC staff evaluation and the supporting information provided to support TSTF-359, Revision 9. STPNOC has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to South Texas Project (STP) Units 1 and 2, and justify this amendment for incorporating the changes into the STP TS.

#### 2.2 Optional Changes and Variations

STPNOC is proposing a deviation from TS changes described in the modified TSTF-359, Revision 9. The following paragraph in the STS Surveillance Requirement (SR) 3.0.4 bases is not applicable to STP Units 1 and 2 because the individual affected TS do not have surveillance frequencies that allow entry into the condition of applicability without performing the surveillance requirement. The current exceptions to Specification 4.0.4 continue to be required for STP Units 1 and 2. Therefore, the following paragraph will not be included in the Specification 4.0.4 bases:

The precise requirement for performance of SRs are specified such that exceptions to SR 3.0.4 are not necessary. The specific time frames and conditions necessary for meeting the SRs are specified in the Frequency, in the Surveillance, or both. This allows performance of Surveillances when the prerequisite condition(s) specified in a Surveillance procedure require entry into the MODE or other specified

condition in the Applicability of the associated LCO prior to the performance or completion of a Surveillance. A Surveillance that could not be performed until after entering the LCO's Applicability, would have its Frequency specified such that it is not 'due' until the specific conditions needed are met. Alternately, the Surveillance may be stated in the form of a Note, as not required (to be met or performed) until a particular event, condition, or time has been reached. Further discussion of the specific formats of SRs' annotation is found in Section 1.4, Frequency.

Additionally, in order to provide consistency with the proposed changes to Specification 3.0.4, Specifications 3.4.9.3 (Overpressure Protection System), 3.5.2 (ECCS Subsystem), and 3.7.1.2 (Auxiliary Feedwater System) are being modified to clarify requirements for entry into specific Modes to permit performance of surveillance testing and necessary equipment realignment. Since STP is a non-Improved Standard Technical Specification plant, additional editorial changes are required to the STP Technical Specifications so that TSTF-359 can be utilized via the CLIIP. STPNOC is not proposing any variations or deviations from the NRC staff's model safety evaluation dated April 4, 2003.

The Federal Register Notice requires that plants adopting TSTF-359 have a TS Bases Control Program consistent with Section 5.5 of the Improved Standard Technical Specifications (ISTS), and the equivalent of ISTS SR 3.0.1 and associated bases. These provisions are not being adopted as part of this license amendment request because they are already contained in the STP Technical Specifications and Bases.

A summary of the proposed changes and their justification, presented in table format, is provided below.

TS Number	Description	Proposed Change	Justification
3.0.4	Mode Change Limitations	Replaced current TS 3.0.4 with new TS 3.0.4.a, 3.0.4.b, 3.0.4.c	Revised per TSTF-359 and CLIIP.
4.0.4	Surveillance Mode Change Limitations	Replaced current TS 4.0.4 with new TS 4.0.4	Revised per TSTF-359 and CLIIP.
3.3.3.5	Remote Shutdown System	Deleted Action c. (exception to TS 3.0.4)	Removed plant-specific exception to TS 3.0.4 per CLIIP guidance.
3.3.3.6	Accident Monitoring Instrumentation	Deleted Action b (exception to TS 3.0.4)	Removed plant-specific exception to TS 3.0.4 per CLIIP guidance.
3.4.4	Pressurizer PORVs	Deleted Action f (exception to TS 3.0.4)	Removed plant-specific exception to TS 3.0.4 per CLIIP guidance.
3.4.9.3	Overpressure Protection (COMS)	1. Added reference to footnote 5 in Applicability.	1. Footnote reference added for consistency with

TS Number	Description	Proposed Change	Justification
		2. Revised Action g to specify exception to 3.0.4.b when entering Mode 4. 3. Revised footnote 5.	LCO. 2. Added high-risk system exception to 3.0.4.b per CLIP. 3. Revised wording for consistency with new TS 3.0.4 requirements.
3.5.2	ECCS - Modes 1, 2, 3	Revised Mode applicability footnote	Revised wording for consistency with new TS 3.0.4 requirements
3.5.3.1	ECCS - Mode 4	Added Action d (exception to TS 3.0.4.b for High Head SI pumps)	Added high-risk system exception to TS 3.0.4.b per CLIP.
3.6.1.3	Containment Air Locks	Deleted Action a.4 (exception to TS 3.0.4)	Removed plant-specific exception to TS 3.0.4 per CLIP guidance.
3.7.1.1	Main Steam Safety Valves	Deleted Action b (exception to TS 3.0.4)	Removed plant-specific exception to 3.0.4 per CLIP guidance.
3.7.1.2	Auxiliary Feedwater System	1. Revise Action b for turbine-driven pump regarding entry into Mode 3 for surveillance testing. 2. Added Action e (exception to TS 3.0.4.b for High Head SI pumps)	1. Revised wording for consistency with new 3.0.4 requirements. 2. Added high-risk system exception to TS 3.0.4.b per CLIP.
3.8.1.1	A.C. Sources - Operating	Add exception to 3.0.4.b for Standby Diesel Generators	Added high-risk system exception to 3.0.4.b per CLIP.

### 3.0 Regulatory Analysis

#### 3.1 No Significant Hazards Determination

STPNOC has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the Federal Register as part of the CLIP. STPNOC has concluded that the proposed NSHCD presented in the Federal Register notice is applicable to STP and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

### 3.2 Verification and Commitments

As discussed in the notice of availability published in the Federal Register on April 4, 2003, for this TS improvement, plant-specific verifications were performed as follows.

Technical Specification (TS) Bases for Specifications 3.0.4 and 4.0.4 have been established, which state that use of the TS mode change limitation flexibility established by the proposed changes to Specifications 3.0.4 and 4.0.4 is not to be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to operable status before entering an associated mode or other specified condition in the TS Applicability.

The Bases for Specifications 3.0.4 and 4.0.4 will be revised to provide details on how to implement the new requirements. The Bases changes will provide guidance for changing modes or other specified conditions in the Applicability when an LCO is not met.

These Bases changes will describe in detail how:

- Specification 3.0.4.a allows entry into a MODE or other specified condition in the Applicability with the LCO not met 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;
- Specification 3.0.4.b allows 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, 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; and
- Specification 3.0.4.c allows entry into a MODE or other specified condition in the Applicability with the LCO not met based on a Note in the Specification, which is typically applied to Specifications which describe values and parameters (e.g. Containment Air Temperature, Containment Pressure, Moderator Temperature Coefficient), though it may be applied to other Specifications based on NRC plant-specific approval.

The Bases will also state that any risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risks Before Maintenance Activities at Nuclear Power Plants," and that the results of the risk assessment shall be considered in determining the acceptability of entering the MODE or other specified condition in the Applicability, and any corresponding risk management actions. In addition, the bases

will state that upon entry into a Mode or other specified condition in the Applicability with the LCO not met, Specification 3.0.1 and 3.0.2 require entry into the applicable Conditions and Required Actions for no more than the duration of the applicable Allowed Outage Time or until the LCO is met or the unit is not within the Applicability of the TS. The Bases will also state that Specification 4.0.4 does not restrict changing MODES or other specified conditions of the Applicability when a Surveillance has not been performed within the specified Frequency, provided the requirement to declare the LCO not met has been delayed in accordance with Specification 4.0.3.

The TS Bases will be revised to reflect these changes to the affected in accordance with TS 6.8.3.m, "Technical Specifications (TS) Bases Control Program," as part of the implementation of this amendment, upon NRC approval of this amendment application.

#### **4.0 Environmental Evaluation**

STPNOC has reviewed the environmental evaluation included in the model safety evaluation dated August 2, 2002, as part of the CLIP. STPNOC has concluded that the staff's findings presented in that evaluation are applicable to STP and the evaluation is hereby incorporated by reference for this application.

## **Attachment 2**

### **Annotated Technical Specification Pages**

### 3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

#### 3/4.0 APPLICABILITY

##### LIMITING CONDITION 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.

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. 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 Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Condition 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.~~

3.0.4 When a Limiting Condition of Operation 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; or
- 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.

## APPLICABILITY

### 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 perform a Surveillance, whether such a failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the Limiting Conditions for Operation. Failure to perform a Surveillance within the specified surveillance interval shall be failure to meet the Limiting Conditions 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 (including the allowed extension per Specification 4.0.2), 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 Condition(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 Condition(s) must be entered.

~~4.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation has been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.~~

~~Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the Surveillance Requirement(s) associated with the LCO have been met within their specified Frequency, except as provided by Specification 4.0.3. When an LCO is not met due to Surveillance Requirement(s) not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with Specification 3.0.4. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.~~

4.0.5 Surveillance Requirements for inservice inspection and testing of ASME Code Class 1, 2, and 3 components shall be applicable as follows:

- a. Inservice inspection of ASME Code Class 1, 2, and 3 components and inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR Part 50, Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR Part 50, Section 50.55a(g)(6)(i);

## INSTRUMENTATION

### REMOTE SHUTDOWN SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.3.3.5 The Remote Shutdown System transfer switches, power, controls and monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With the number of OPERABLE remote shutdown monitoring channels, transfer switches, power or control circuits less than the Minimum Channels OPERABLE as required by Table 3.3-9, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.
- b. With the number of OPERABLE remote shutdown monitoring channels, transfer switches, power or control circuits less than the Total Number of Channels as required by Table 3.3-9, within 60 days restore the inoperable channel(s) to OPERABLE status or, submit a Special Report that defines the corrective action to be taken.

~~6. The provisions of Specification 3.0.4 are not applicable.~~

#### SURVEILLANCE REQUIREMENTS

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4.3.3.5.1 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.

4.3.3.5.2 Each Remote Shutdown System transfer switch, power and control circuit including the actuated components, shall be demonstrated OPERABLE at least once per 18 months.

INSTRUMENTATION

ACCIDENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

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3.3.3.6 The accident monitoring instrumentation channels shown in Table 3.3-10 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. As shown in Table 3.3-10.

~~b. The provisions of Specification 3.0.4 are not applicable.~~

SURVEILLANCE REQUIREMENTS

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4.3.3.6 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION at the frequencies shown in Table 4.3-7.

REACTOR COOLANT SYSTEM3/4.4.4 RELIEF VALVESLIMITING CONDITION FOR OPERATION

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

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

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

~~The provisions of Specification 3.0.4 are not applicable.~~

REACTOR COOLANT SYSTEMOVERPRESSURE PROTECTION SYSTEMSLIMITING CONDITION FOR OPERATION

3.4.9.3 An Overpressure Protection System shall be OPERABLE with a maximum of one centrifugal charging pump capable of injecting into the RCS and the emergency core cooling system (ECCS) accumulators isolated and either a. or b. below:

- a. Two power-operated relief valves (PORVs) with lift settings which do not exceed the limit established in Figure 3.4-4, or
- b. The Reactor Coolant System (RCS) depressurized with an RCS vent of greater than or equal to 2.0 square inches.

APPLICABILITY: MODES 4 and 5, and MODE 6 when the head is on the reactor vessel<sup>1,5</sup>

ACTION:

- a. With one or more ECCS accumulators not isolated, isolate the ECCS accumulator(s) within 1 hour.
- b. With more than one centrifugal charging pump capable of injecting into the RCS, immediately initiate action to render all but one centrifugal charging pump incapable of injecting into the RCS<sup>2</sup>.
- c. With one PORV inoperable in MODE 4, restore the inoperable PORV to OPERABLE status within 7 days or depressurize and vent the RCS through at least a 2.0 square inch vent within the next 8 hours.
- d. With one PORV inoperable in MODES 5 or 6 with the head on the reactor vessel, restore the inoperable PORV to OPERABLE status within 24 hours, or complete depressurization and venting of the RCS through at least a 2.0 square inch vent within the next 8 hours<sup>3</sup>.
- e. With both PORVs inoperable, depressurize and vent the RCS through at least a 2.0 square inch vent within 8 hours<sup>3</sup>.
- f. In the event either the PORVs or the RCS vent(s) are used to mitigate an RCS pressure transient, a Special Report shall be submitted within 30 days. The report shall describe the circumstances initiating the transient, the effect of the PORVs or RCS vent(s) on the transient, and any corrective action necessary to prevent recurrence.
- g. The provisions of Specification 3.0.4<sup>b</sup> are not applicable when entering MODE 4.

REACTOR COOLANT SYSTEM

OVERPRESSURE PROTECTION SYSTEMS

SURVEILLANCE REQUIREMENTS

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4.4.9.3.1 Each PORV shall be demonstrated OPERABLE by:

- a. Performance of an ANALOG CHANNEL OPERATIONAL TEST on the PORV actuation channel, but excluding valve operation, within 31 days prior to entering a condition in which the PORV is required OPERABLE and at least once per 31 days thereafter when the PORV is required OPERABLE;
- b. Performance of a CHANNEL CALIBRATION on the PORV actuation channel at least once per 18 months; and
- c. Verifying the PORV block valve is open at least once per 72 hours when the PORV is being used for overpressure protection.

4.4.9.3.2 The RCS vent(s) shall be verified to be open at least once per 12 hours<sup>4</sup> when the vent(s) is being used for overpressure protection.

4.4.9.3.3 The positive displacement pump shall be demonstrated inoperable<sup>5</sup> at least once per 31 days, except when the reactor vessel head is removed or when both centrifugal charging pumps are inoperable and secured, by verifying that the motor circuit breakers are secured in the open position.<sup>2</sup>

4.4.9.3.4 Verify at least once every 31 days that only one centrifugal charging pump is capable of injecting into the RCS<sup>2</sup>, except when the reactor vessel head is removed, by verifying that the motor circuit breakers are secured in the open position.<sup>2</sup>

4.4.9.3.5 Verify at least once every 12 hours that each ECCS accumulator is isolated.

SPECIFICATION NOTATIONS

<sup>1</sup> ECCS accumulator isolation is required only when ECCS accumulator pressure is greater than or equal to the maximum RCS pressure for the existing RCS cold leg temperature allowed by Figures 3.4-2 and 3.4-3.

<sup>2</sup> An inoperable centrifugal charging pump(s) and/or positive displacement charging pump may be energized for testing or pump switching provided the discharge of the pump(s) has been isolated from the RCS by a closed isolation valve with power removed from the valve operator, or by a manual isolation valve secured in the closed position. Reactor coolant pump seal injection flow may be maintained during the RCS isolation process.

- <sup>3</sup> This ACTION may be suspended for up to 7 days to allow functional testing to verify PORV operability. During this test period, operation of systems or components which could result in an RCS mass or temperature increase will be administratively controlled. During the ASME stroke testing of two inoperable PORVS, cold overpressurization mitigation will be provided by two RHR discharge relief valves associated with two OPERABLE and operating RHR loops which have the auto closure interlock bypassed [or deleted]. If one PORV is inoperable, cold overpressure mitigation will be provided by the OPERABLE PORV and one RHR discharge relief valve associated with an OPERABLE and operating RHR loop which has the auto closure interlock bypassed [or deleted].
- <sup>4</sup> Except when the vent pathway is provided with a valve that is locked, sealed, or otherwise secured in the open position, then verify these valves open at least once per 31 days.

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<sup>5</sup> ~~The provisions of 3.0.4 and 4.0.4 are not applicable for entry~~ Entry into MODE 4 from MODE 3 is permitted while making all but one centrifugal charging pump incapable of injecting into the RCS pursuant to Specification 4.4.9.3.4, and for the positive displacement pump declared inoperable pursuant to Specification 4.4.9.3.3 provided that all but one centrifugal charging pump is made incapable of injecting into the RCS, and the positive displacement pump is declared inoperable within 4 hours after entry into MODE 4 from MODE 3 or prior to the temperature of one or more of the RCS cold legs decreasing below 325°F, whichever comes first.

EMERGENCY CORE COOLING SYSTEMS3/4.5.2 ECCS SUBSYSTEMS - T<sub>AVG</sub> GREATER THAN OR EQUAL TO 350°FLIMITING CONDITION FOR OPERATION

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

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

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

ACTION:

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

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\* ~~The provisions of Specifications 3.0.4 and 4.0.4 are not applicable for entry~~ Entry into MODE 3 is permitted for the Safety Injection pumps declared inoperable pursuant to Specification 4.5.3.1.2 provided that the Safety Injection pumps are restored to OPERABLE status within 4 hours or prior to the temperature of one or more of the RCS cold legs exceeding 375°F, whichever comes first.

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

EMERGENCY CORE COOLING SYSTEMS3/4.5.3 ECCS SUBSYSTEMS -  $T_{avg}$  LESS THAN 350°FLIMITING CONDITION FOR OPERATION

3.5.3.1 As a minimum, the following ECCS components shall be OPERABLE:

- a. Two OPERABLE High Head Safety Injection pumps,\*
- b. Two OPERABLE Low Head Safety Injection pumps and their associated RHR heat exchangers, and
- c. Two OPERABLE flow paths capable of taking suction from the refueling water storage tank upon being manually realigned and transferring suction to the containment sump during the recirculation phase of operation through a High Head Safety Injection pump and into the Reactor Coolant System and through a Low Head Safety Injection pump and its respective RHR heat exchanger into the Reactor Coolant System.

APPLICABILITY: MODE 4.

ACTION:

- a. With less than the above-required ECCS components OPERABLE because of the inoperability of either the High Head Safety Injection pumps or the flow paths from the refueling water storage tank, restore at least the required ECCS components to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 20 hours.
- b. With less than the above-required ECCS components OPERABLE because of the inoperability of either the residual heat removal heat exchangers or the Low Head Safety Injection pumps, restore at least the required ECCS components to OPERABLE status or maintain the Reactor Coolant System  $T_{avg}$  less than 350°F by use of alternate heat removal methods.
- c. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be submitted within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected Safety Injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.

d. Specification 3.0.4.b is not applicable to the High Head Safety Injection pumps!

\*A maximum of one High Head Safety Injection pump shall be OPERABLE and a second High Head Safety Injection pump shall be OPERABLE except that its breaker shall be racked out (the third HHSI pump shall have its breaker racked out) within: (1) 4 hours after entering MODE 4 from MODE 3 or prior to the temperature of one or more of the RCS cold legs decreasing below 325°F, whichever comes first; or (2) 4 hours after entering MODE 4 from MODE 5 or prior to the temperature of one or more of the RCS cold legs exceeding 225°F, whichever comes first.

CONTAINMENT SYSTEMSCONTAINMENT AIR LOCKSLIMITING CONDITION FOR OPERATION

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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.

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
  - ~~4. The provisions of Specification 3.0.4 are not applicable.~~
- 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.

3/4.7 PLANT SYSTEMS

3/4.7.1 TURBINE CYCLE

SAFETY VALVES

LIMITING CONDITION FOR OPERATION

3.7.1.1 All main steam line Code safety valves associated with each steam generator shall be OPERABLE with lift settings as specified in Table 3.7-2.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With four reactor coolant loops and associated steam generators in operation and with one or more main steam line Code safety valves inoperable, operation in MODES 1, 2, and 3 may proceed provided that within 24 hours, either the inoperable valve is restored to OPERABLE status or the Power Range Neutron Flux High Trip Setpoint is reduced per Table 3.7-1; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

~~b. The provisions of Specification 3.0.4 are not applicable.~~

SURVEILLANCE REQUIREMENTS

4.7.1.1 There are no additional requirements other than those required by Specification 4.0.5

PLANT SYSTEMSAUXILIARY FEEDWATER SYSTEMLIMITING CONDITION FOR OPERATION

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

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

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

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

~~e. Specification 3.0.4.b is not applicable.~~

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION

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ACTION (continued)

- g. With one or more diesel generator fuel oil storage tanks with stored fuel oil total particulates not within the Diesel Fuel Oil Testing Program limits, within 7 days restore the fuel oil total particulates within limits, or declare the associated standby diesel generator(s) inoperable.
- h. With one or more diesel generator fuel oil storage tanks with new fuel oil properties not within the Diesel Fuel Oil Testing Program limits, within 30 days restore the fuel oil properties within limits, or declare the associated standby diesel generator(s) inoperable.

i. Specification 3.0.4.b is not applicable for standby diesel generators.

## **Attachment 3**

### **Technical Specifications Bases Changes (Information Only)**

<b>Information Only</b>
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## **Specification 3.0.4 Bases**

[The following will replace the current Bases section.]

Specification 3.0.4 establishes limitations on changes in MODES or other specified conditions in the Applicability when an LCO is not met. It allows placing the unit in a MODE or other specified condition stated in that Applicability (e.g., the Applicability desired to be entered) when unit conditions are such that the requirements of the LCO would not be met, in accordance with Specification 3.0.4.a, 3.0.4.b, or 3.0.4.c.

Specification 3.0.4.a allows entry into a MODE or other specified condition in the Applicability with the LCO not met 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. Compliance with ACTIONS that permit continued operation of the unit for an unlimited period of time in a MODE or other specified condition provides an acceptable level of safety for continued operation. This is without regard to the status of the unit before or after the MODE change. Therefore, in such cases, entry into a MODE or other specified condition in the Applicability may be made in accordance with the provisions of the ACTIONS.

Specification 3.0.4.b allows 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, 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.

The risk assessment may use quantitative, qualitative, or blended approaches, and the risk assessment will be conducted using the plant program, procedures, and criteria in place to implement 10 CFR 50.65(a)(4), which requires that risk impacts of maintenance activities be assessed and managed. The risk assessment, for the purposes of Specification 3.0.4.b, must take into account all inoperable Technical Specification equipment regardless of whether the equipment is included in the normal 10 CFR 50.65(a)(4) risk assessment scope. The risk assessments will be conducted using the procedures and guidance endorsed by Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." Regulatory Guide 1.182 endorses the guidance in Section 11 of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." These documents address general guidance for conduct of the risk assessment, quantitative and qualitative guidelines for establishing risk management actions, and example risk management actions. These include actions to plan and conduct other activities in a manner that controls overall risk, increased risk awareness by shift and management personnel, actions to reduce the duration of the condition, actions to minimize the magnitude of risk increases (establishment of backup success paths or compensatory measures), and determination that the proposed MODE change is acceptable. Consideration should also be given to the probability of completing restoration such that the requirements of the LCO would be met prior to the expiration of the associated Allowed Outage Times that would require exiting the Applicability.

**Information Only**

Specification 3.0.4.b may be used with single or multiple systems and components unavailable. NUMARC 93-01 provides guidance relative to consideration of simultaneous unavailability of multiple systems and components.

The results of the risk assessment shall be considered in determining the acceptability of entering the MODE or other specified condition in the Applicability and any corresponding risk management actions. The Specification 3.0.4.b risk assessments do not have to be documented.

The Technical Specifications allow continued operation with equipment unavailable in MODE 1 for the duration of the Allowed Outage Time. Since this is allowable, and since in general the risk impact in that particular MODE bounds the risk of transitioning into and through the applicable MODES or other specified conditions in the Applicability of the LCO, the use of the Specification 3.0.4.b allowance should be generally acceptable, as long as the risk is assessed and managed as stated above. However, there is a small subset of systems and components that have been determined to be more important to risk and use of the Specification 3.0.4.b allowance is prohibited. The LCOs governing these system and components contain provisions prohibiting the use of Specification 3.0.4.b by stating that Specification 3.0.4.b is not applicable.

Specification 3.0.4.c allows entry into a MODE or other specified condition in the Applicability with the LCO not met based on a provision in the Specification which states Specification 3.0.4.c is applicable. These specific allowances permit entry into MODES or other specified conditions in the Applicability when the associated ACTIONS to be entered do not provide for continued operation for an unlimited period of time and a risk assessment has not been performed. This allowance may apply to all the ACTIONS or to a specific Required Action of a Specification. The risk assessments performed to justify the use of Specification 3.0.4.b usually only consider systems and components. For this reason, Specification 3.0.4.c is typically applied to Specifications which describe values and parameters and may be applied to other Specifications based on NRC plant-specific approval.

The provisions of Specification 3.0.4 should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated MODE or other specified condition in the Applicability.

The provisions of Specification 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS. In addition, the provisions of Specification 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from any unit shutdown. In this context, a unit shutdown is defined as a change in MODE or other specified condition in the Applicability associated with transitioning from MODE 1 to MODE 2, MODE 2 to MODE 3, MODE 3 to MODE 4, and MODE 4 to MODE 5.

Upon entry into a MODE or other specified condition in the Applicability with the LCO not met, Specifications 3.0.1 and 3.0.2 require entry into the applicable LCO and ACTIONS until the

**Information Only**

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

### **Specification 4.0.4 Bases**

[The following will replace the current Bases section.]

Specification 4.0.4 establishes the requirement that all applicable Surveillance Requirements (SRs) must be met before entry into a MODE or other specified condition in the Applicability.

This Specification ensures that system and component OPERABILITY requirements and variable limits are met before entry into MODES or other specified conditions in the Applicability for which these systems and components ensure safe operation of the unit. The provisions of this Specification should not be interpreted as endorsing the failure to exercise the good practice of restoring systems or components to OPERABLE status before entering an associated MODE or other specified condition in the Applicability.

A provision is included to allow entry into a MODE or other specified condition in the Applicability when an LCO is not met due to Surveillance not being met in accordance with Specification 3.0.4.

However, in certain circumstances, failing to meet an SR will not result in Specification 4.0.4 restricting a MODE change or other specified condition change. When a system, subsystem, division, component, device, or variable is inoperable or outside its specified limits, the associated SR(s) are not required to be performed, per Specification 4.0.1, which states that surveillances do not have to be performed on inoperable equipment. When equipment is inoperable, Specification 4.0.4 does not apply to the associated SR(s) since the requirement for the SR(s) to be performed is removed. Therefore, failing to perform the Surveillance(s) within the specified frequency does not result in a Specification 4.0.4 restriction to changing MODES or other specified conditions of the Applicability. However, since the LCO is not met in this instance, Specification 3.0.4 will govern any restrictions that may (or may not) apply to MODE or other specified condition changes. Specification 4.0.4 does not restrict changing MODES or other specified conditions of the Applicability when a Surveillance has not been performed within the specified frequency, provided the requirement to declare the LCO not met has been delayed in accordance with Specification 4.0.3.

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The provisions of Specification 4.0.4 shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS. In addition, the provisions of Specification 4.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from any unit shutdown. In this context, a unit shutdown is defined as a change in MODE or other specified condition in the Applicability associated with transitioning from MODE 1 to MODE 2, MODE 2 to MODE 3, MODE 3 to MODE 4, and MODE 4 to MODE 5.

### **Specification 3/4.3.3.5 (Remote Shutdown System) Bases**

[No proposed changes to this section.]

### **Specification 3/4.3.3.6 (Accident Monitoring System) Bases**

[No proposed changes to this section.]

### **Specification 3/4.4.4 (Relief Valves) Bases**

[No proposed changes to this section.]

### **Specification 3/4.4.9 (Low Temperature Overpressure Protection) Bases**

[The following will be added to this Bases section.]

Specification 3.4.9.3 Action g prohibits the application of Specification 3.0.4.b to an inoperable Overpressure Protection system. There is an increased risk associated with entering MODE 4 from MODE 5 with the Overpressure Protection system inoperable and the provisions of Specification 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.

<b>Information Only</b>
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**Specification 3/4.5.3 (ECCS Subsystems) Bases**

[The following will be added to this Bases section.]

Specification 3.5.3.1 Action d prohibits the application of Specification 3.0.4.b to an inoperable ECCS high head subsystem when entering MODE 4. There is an increased risk associated with entering MODE 4 from MODE 5 with an inoperable ECCS high head subsystem and the provisions of Specification 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.

**Specification 3/4.6.1.3 (Containment Air Locks) Bases**

[No proposed changes to this section.]

**Specification 3/4.7.1.1 (Turbine Cycle Safety Valves) Bases**

[No proposed changes to this section.]

**Specification 3/4.7.1.2 (Auxiliary Feedwater System) Bases**

[The following will be added to this Bases section.]

Action e prohibits the application of Specification 3.0.4.b to an inoperable AFW train. There is an increased risk associated with entering a MODE or other specified condition in the Applicability with an AFW train inoperable and the provisions of Specification 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.

<b>Information Only</b>
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**Specification 3/4.8.1 (A. C. Sources - Operating) Bases**

[The following will be added to this Bases section.]

Specification 3.8.1.1 Action i prohibits the application of Specification 3.0.4.b to an inoperable standby diesel generator. There is an increased risk associated with entering a MODE or other specified condition in the Applicability with an inoperable standby diesel generator and the provisions of Specification 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.

## **Attachment 4**

### **Retyped Technical Specification Pages**

## 3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

### 3/4.0 APPLICABILITY

#### LIMITING CONDITION 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.

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. 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 a Limiting Condition of Operation 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; or
- 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.

## APPLICABILITY

### 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 perform a Surveillance, whether such a failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the Limiting Conditions for Operation. Failure to perform a Surveillance within the specified surveillance interval shall be failure to meet the Limiting Conditions 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 (including the allowed extension per Specification 4.0.2), 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 Condition(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 Condition(s) must be entered.

4.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the Surveillance Requirement(s) associated with the LCO have been met within their specified Frequency, except as provided by Specification 4.0.3. When an LCO is not met due to Surveillance Requirement(s) not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with Specification 3.0.4. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

4.0.5 Surveillance Requirements for inservice inspection and testing of ASME Code Class 1, 2, and 3 components shall be applicable as follows:

- a. Inservice inspection of ASME Code Class 1, 2, and 3 components and inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR Part 50, Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR Part 50, Section 50.55a(g)(6)(i);

## INSTRUMENTATION

### REMOTE SHUTDOWN SYSTEM

#### LIMITING CONDITION FOR OPERATION

---

3.3.3.5 The Remote Shutdown System transfer switches, power, controls and monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

- a. With the number of OPERABLE remote shutdown monitoring channels, transfer switches, power or control circuits less than the Minimum Channels OPERABLE as required by Table 3.3-9, restore the inoperable channel(s) to OPERABLE status within 7 days, or be in HOT SHUTDOWN within the next 12 hours.
- b. With the number of OPERABLE remote shutdown monitoring channels, transfer switches, power or control circuits less than the Total Number of Channels as required by Table 3.3-9, within 60 days restore the inoperable channel(s) to OPERABLE status or, submit a Special Report that defines the corrective action to be taken.

#### SURVEILLANCE REQUIREMENTS

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4.3.3.5.1 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.

4.3.3.5.2 Each Remote Shutdown System transfer switch, power and control circuit including the actuated components, shall be demonstrated OPERABLE at least once per 18 months.

## INSTRUMENTATION

### ACCIDENT MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.3.6 The accident monitoring instrumentation channels shown in Table 3.3-10 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

As shown in Table 3.3-10.

#### SURVEILLANCE REQUIREMENTS

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4.3.3.6 Each accident monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK and CHANNEL CALIBRATION at the frequencies shown in Table 4.3-7.

## REACTOR COOLANT SYSTEM

### 3/4.4.4 RELIEF VALVES

#### LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

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

## REACTOR COOLANT SYSTEM

### OVERPRESSURE PROTECTION SYSTEMS

#### LIMITING CONDITION FOR OPERATION

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- 3.4.9.3 An Overpressure Protection System shall be OPERABLE with a maximum of one centrifugal charging pump capable of injecting into the RCS and the emergency core cooling system (ECCS) accumulators isolated and either a. or b. below:
- a. Two power-operated relief valves (PORVs) with lift settings which do not exceed the limit established in Figure 3.4-4, or
  - b. The Reactor Coolant System (RCS) depressurized with an RCS vent of greater than or equal to 2.0 square inches.

APPLICABILITY: MODES 4 and 5, and MODE 6 when the head is on the reactor vessel<sup>1,5</sup>

ACTION:

- a. With one or more ECCS accumulators not isolated, isolate the ECCS accumulator(s) within 1 hour.
- b. With more than one centrifugal charging pump capable of injecting into the RCS, immediately initiate action to render all but one centrifugal charging pump incapable of injecting into the RCS<sup>2</sup>.
- c. With one PORV inoperable in MODE 4, restore the inoperable PORV to OPERABLE status within 7 days or depressurize and vent the RCS through at least a 2.0 square inch vent within the next 8 hours.
- d. With one PORV inoperable in MODES 5 or 6 with the head on the reactor vessel, restore the inoperable PORV to OPERABLE status within 24 hours, or complete depressurization and venting of the RCS through at least a 2.0 square inch vent within the next 8 hours<sup>3</sup>.
- e. With both PORVs inoperable, depressurize and vent the RCS through at least a 2.0 square inch vent within 8 hours<sup>3</sup>.
- f. In the event either the PORVs or the RCS vent(s) are used to mitigate an RCS pressure transient, a Special Report shall be submitted within 30 days. The report shall describe the circumstances initiating the transient, the effect of the PORVs or RCS vent(s) on the transient, and any corrective action necessary to prevent recurrence.
- g. The provisions of Specification 3.0.4.b are not applicable when entering MODE 4.

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<sup>5</sup> Entry into MODE 4 from MODE 3 is permitted while making all but one centrifugal charging pump incapable of injecting into the RCS pursuant to Specification 4.4.9.3.4, and for the positive displacement pump declared inoperable pursuant to Specification 4.4.9.3.3 provided that all but one centrifugal charging pump is made incapable of injecting into the RCS, and the positive displacement pump is declared inoperable within 4 hours after entry into MODE 4 from MODE 3 or prior to the temperature of one or more of the RCS cold legs decreasing below 325°F, whichever comes first.

## EMERGENCY CORE COOLING SYSTEMS

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

#### LIMITING CONDITION FOR OPERATION

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

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

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

#### ACTION:

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

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

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

## EMERGENCY CORE COOLING SYSTEMS

### 3/4.5.3 ECCS SUBSYSTEMS - $T_{avg}$ LESS THAN 350°F

#### LIMITING CONDITION FOR OPERATION

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3.5.3.1 As a minimum, the following ECCS components shall be OPERABLE:

- a. Two OPERABLE High Head Safety Injection pumps,\*
- b. Two OPERABLE Low Head Safety Injection pumps and their associated RHR heat exchangers, and
- c. Two OPERABLE flow paths capable of taking suction from the refueling water storage tank upon being manually realigned and transferring suction to the containment sump during the recirculation phase of operation through a High Head Safety Injection pump and into the Reactor Coolant System and through a Low Head Safety Injection pump and its respective RHR heat exchanger into the Reactor Coolant System.

APPLICABILITY: MODE 4.

#### ACTION:

- a. With less than the above-required ECCS components OPERABLE because of the inoperability of either the High Head Safety Injection pumps or the flow paths from the refueling water storage tank, restore at least the required ECCS components to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 20 hours.
- b. With less than the above-required ECCS components OPERABLE because of the inoperability of either the residual heat removal heat exchangers or the Low Head Safety Injection pumps, restore at least the required ECCS components to OPERABLE status or maintain the Reactor Coolant System  $T_{avg}$  less than 350°F by use of alternate heat removal methods.
- c. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be submitted within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected Safety Injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.
- d. Specification 3.0.4.b is not applicable to the High Head Safety Injection pumps.

\*A maximum of one High Head Safety Injection pump shall be OPERABLE and a second High Head Safety Injection pump shall be OPERABLE except that its breaker shall be racked out (the third HHSI pump shall have its breaker racked out) within: (1) 4 hours after entering MODE 4 from MODE 3 or prior to the temperature of one or more of the RCS cold legs decreasing below 325°F, whichever comes first; or (2) 4 hours after entering MODE 4 from MODE 5 or prior to the temperature of one or more of the RCS cold legs exceeding 225°F, whichever comes first.

## CONTAINMENT SYSTEMS

### CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATION

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3.6.1.3 Each containment air lock shall be OPERABLE with:

- b. 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.

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.

## 3/4.7 PLANT SYSTEMS

### 3/4.7.1 TURBINE CYCLE

#### SAFETY VALVES

#### LIMITING CONDITION FOR OPERATION

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3.7.1.1 All main steam line Code safety valves associated with each steam generator shall be OPERABLE with lift settings as specified in Table 3.7-2.

APPLICABILITY: MODES 1, 2, and 3.

#### ACTION:

With four reactor coolant loops and associated steam generators in operation and with one or more main steam line Code safety valves inoperable, operation in MODES 1, 2, and 3 may proceed provided that within 24 hours, either the inoperable valve is restored to OPERABLE status or the Power Range Neutron Flux High Trip Setpoint is reduced per Table 3.7-1; otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.7.1.1 There are no additional requirements other than those required by Specification 4.0.5

## PLANT SYSTEMS

### AUXILIARY FEEDWATER SYSTEM

#### LIMITING CONDITION FOR OPERATION

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

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

APPLICABILITY: MODES 1, 2, and 3.

#### ACTION:

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

## ELECTRICAL POWER SYSTEMS

### LIMITING CONDITION FOR OPERATION

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#### ACTION (continued)

- g. With one or more diesel generator fuel oil storage tanks with stored fuel oil total particulates not within the Diesel Fuel Oil Testing Program limits, within 7 days restore the fuel oil total particulates within limits, or declare the associated standby diesel generator(s) inoperable.
- h. With one or more diesel generator fuel oil storage tanks with new fuel oil properties not within the Diesel Fuel Oil Testing Program limits, within 30 days restore the fuel oil properties within limits, or declare the associated standby diesel generator(s) inoperable.
- i. Specification 3.0.4.b is not applicable for standby diesel generators.