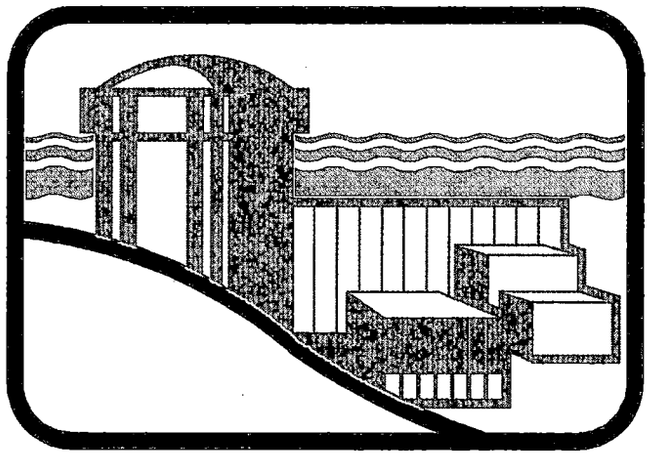
# IMPROVED TECHNICAL SPECIFICATIONS



## PALISADES NUCLEAR PLANT

Volume 5 CHAPTER 3.0

Consumers Energy

**PALISADES NUCLEAR PLANT**
**CONSUMERS ENERGY**
Docket 50-255
Conversion to Improved Technical Specifications
License DPR-20

## INTRODUCTION: CHAPTER 3.0, APPLICABILITY

### A. ARRANGEMENT AND CONTENT OF THIS CHAPTER OF THE CHANGE REQUEST

This Chapter of the Technical Specification Change Request (TSCR) proposes changes to those Palisades Technical Specifications addressing LIMITING CONDITION FOR OPERATION and SURVEILLANCE REQUIREMENT APPLICABILITY. These changes are intended to result in requirements which are appropriate for the Palisades Nuclear Plant, but closely emulate those of the Standard Technical Specifications, Combustion Engineering Plants, NUREG 1432, Revision 1, Chapter 3.0.

This discussion and its supporting information frequently refer to three sets of Technical Specifications, and to two groups of discussions associated with the proposed changes; the following abbreviations are used for clarity and brevity:

CTS - The Palisades Current Technical Specifications,
ITS - The Palisades Improved Technical Specifications,
ISTS - NUREG 1432, Revision 1.
DOC - Discussions of Change; these discussions explain and justify the differences between the requirements of CTS and ITS.
JFD - Justifications for Deviation; these discussions explain the differences between the requirements of the ITS and the ISTS.

Six attachments are provided to assist the reviewer:

1. Proposed ITS Chapter 3.0 pages

2. Proposed ITS Chapter 3.0 Bases

3. A set of all those CTS pages which contain requirements associated with those in ITS Chapter 3.0, marked up to show the changes from CTS to ITS, and arranged by specification in the order which the requirements occur in ITS. This attachment also includes a DOC for each change.

   Each change from CTS to ITS is classified in the following categories:

   **ADMINISTRATIVE** - A change which is editorial in nature, which only involves movement of requirements within the TS without affecting their technical content, or clarifies CTS requirements.

   **MORE RESTRICTIVE** - A change which only adds new requirements, or which revised an existing requirement resulting in additional operational restrictions.

   **RELOCATED** - A change which only moves requirements, not meeting the 10 CFR 50.36(c)(2)(ii) criteria, from the CTS to the Operating Requirements Manual (which has been included in the FSAR by reference).

A. ARRANGEMENT AND CONTENT OF THIS CHAPTER OF THE CHANGE REQUEST (continued)

**LESS RESTRICTIVE - REMOVAL OF DETAIL (LA)** - A change in which certain details from otherwise retained Specifications are removed from the ITS and placed in the Bases, FSAR, or other licensee controlled documents.

**LESS RESTRICTIVE** - A change which deletes any existing requirement, or which revises any existing requirement resulting in reduced operational restriction.

4. No Significant Hazards Analyses for the changes from CTS to ITS.

   An individual No Significant Hazards Analysis is provided for each Less Restrictive change; generic No Significant Hazards Analyses are provided for each of the other categories of change.

5. ISTS Chapter 3.0, Specifications and Bases, marked to show the differences between ISTS and ITS.

6. JFDs for the differences between ISTS and ITS.

B. REFERENCE DOCUMENTS

This Chapter of the TSCR is based on the following reference documents:

1. CTS as revised through Amendment 178.

2. The following TSCRs which are currently under review by the NRC:

   a. None.

3. ISTS, as revised by Industry Generic Changes (TSTF) approved as of October 15, 1997.

4. The following changes to ISTS which are currently under review by the NRC:

   a. TSTF 52.

   b. TSTF 103.

## C. THE UNIQUE PALISADES NUCLEAR PLANT FEATURES AFFECTING THIS CHAPTER

Palisades has several physical, analytical, and administrative features which differ from those newer CE plants upon which the ISTS were based. Palisades was the first CE plant designed and built. Its design and licensing preceded the issuance of the General Design Criteria so that, in some aspects, its physical systems are not like those of newer plants; its Technical Specifications preceded the issuance of Standard Technical Specifications (STS) so that LCOs, Actions, and Surveillance Requirements are not coordinated as they would be for a STS plant. Palisades has purchased all its core reloads from Siemens Power Corporation (or its predecessors), therefore, reload analyses and the associated core physics parameters, as well as certain Safety Analyses are not like those plants using all CE fuel and analyses as were modeled in the ISTS.

In the Actions of several LCOs, NUREG 1432 lists a time to reach MODE 4 of 12 hours (13 hours for LCO 3.0.3, where the specified times include an extra hour for preparation). This item is "bracketed" in NUREG-1432, indicating that it is to be replaced by a plant specific number. The time allowed to reach MODE 4 in NUREG-1432 is bracketed since some CE plant designs require a longer time than most. In the ITS, this time is increased to 30 hours (31 hours for LCO 3.0.3). At Palisades, increasing the time allowed to reach MODE 4 allows for more complete degassing of the Primary Coolant System (PCS). The PCS is degassed by venting the pressurizer gas space to the Vacuum Degasifier. The efficiency of this method is maximized by maintaining PCS temperature as high as practical, the subcooling as low as practical, and operating all pressurizer heaters. This results in a net increase in the rate of hydrogen removal from the PCS since increased spray flow and lower PCS pressure offset the lower degas flow rate through the vent path. While the total time to reach MODE 4 is increased, the time to reach MODE 5 is the same in the proposed ITS as specified in NUREG-1432.

## D. THE DIFFERENCES BETWEEN CTS "OPERATING CONDITIONS" AND ITS "MODES"

The CTS definitions of plant operating conditions have been replaced with the operation Mode definitions used in ISTS. In several instances the name for a CTS defined "operating condition" is the same as that for an ISTS "Mode," but the definition differs.

CTS contain the following definitions for operating conditions:

1. The POWER OPERATION condition shall be when the reactor is critical and the neutron flux power range instrumentation indicates greater than 2% of RATED POWER.

2. The HOT STANDBY condition shall be when $T_{ave}$ is greater than 525°F and any of the CONTROL RODS are withdrawn and the neutron flux power range instrumentation indicates less than 2% of RATED POWER.

3. The HOT SHUTDOWN condition shall be when the reactor is subcritical by an amount greater than or equal to the margin as specified in Technical Specification 3.10 and $T_{ave}$ is greater than 525°F.

## D. THE DIFFERENCES BETWEEN CTS "OPERATING CONDITIONS" AND ITS "MODES" (continued)

4. The COLD SHUTDOWN condition shall be when the primary coolant is at SHUTDOWN BORON CONCENTRATION and $T_{ave}$ is less than 210°F.

5. The REFUELING SHUTDOWN condition shall be when the primary coolant is at REFUELING BORON CONCENTRATION and $T_{ave}$ is less than 210°F.

ITS contain the following definition table for Modes:

| MODE | TITLE | REACTIVITY CONDITION ($k_{eff}$) | % RATED THERMAL POWER[a] | AVERAGE PRIMARY COOLANT TEMPERATURE (°F) |
|---|---|---|---|---|
| 1 | Power Operation | ≥ 0.99 | > 5 | NA |
| 2 | Startup | ≥ 0.99 | ≤ 5 | NA |
| 3 | Hot Standby | < 0.99 | NA | ≥ 300 |
| 4 | Hot Shutdown[b] | < 0.99 | NA | 300 > $T_{ave}$ > 200 |
| 5 | Cold Shutdown[b] | < 0.99 | NA | ≤ 200 |
| 6 | Refueling[c] | NA | NA | NA |

(a) Excluding decay heat.
(b) All reactor vessel head closure bolts fully tensioned.
(c) One or more reactor vessel head closure bolts less than fully tensioned.

## E. MODE CHANGES USING CTS "OPERATING CONDITIONS" VERSUS ITS "MODES"

1. CTS "Power Operation" is essentially equivalent to ITS "MODE 1." Each represents a condition with the reactor critical and the turbine generator in operation. The only effective difference is the power level which separates that Condition or Mode from the next lower one. During plant startup, the plant must meet all CTS "Power Operation" or ITS "MODE 1" LCOs before the turbine generator is placed on the line; similarly, during plant shutdown, the plant exits CTS "Power Operation" or ITS "MODE 1" when the turbine generator is no longer in service. Therefore, this change in definition will have no operational effect.

E. **MODE CHANGES USING CTS "OPERATING CONDITIONS" VERSUS ITS "MODES"** (continued)

2. CTS "Hot Standby" is similar to ITS "MODE 2." Each represents a condition with the reactor critical, or nearly so, and the turbine generator shut down. During plant startup, the plant must meet all CTS "Hot Standby" or ITS "MODE 2" LCOs before a reactor startup is started; during plant shutdown, the plant exits CTS "Hot Standby" or ITS "MODE 2" when the reactor is shutdown. CTS action statements requiring that the plant be placed in "Hot Standby" are effectively equivalent to ITS Actions requiring the plant be placed in "MODE 2." Therefore, this change in definition will have no operational effect.

3. CTS "Hot Shutdown" and ITS "MODE 3" are similar at their upper temperature boundary. During plant shutdown, the plant exits CTS "Hot Standby" or ITS "MODE 2" when the reactor is shutdown. CTS action statements requiring that the plant be placed in "Hot Shutdown" are effectively equivalent to ITS Actions requiring the plant be placed in "MODE 3." CTS "Hot Shutdown" and ITS "MODE 3" are quite different at their lower temperature boundary; CTS "Hot Shutdown" is exited when Tave drops below 525°F, ITS "MODE 3" is not exited until Tave drops below 300°F.

4. CTS does not provide a defined term for the condition when Tave is between 525°F and 210°F (the upper bound for CTS "Cold Shutdown").

5. CTS "Cold Shutdown" is essentially equivalent to ITS "MODE 5." Each represents a condition with Tave below boiling. There is no technical significance to the difference between the CTS 210°F and the ITS 200°F. CTS action statements requiring that the plant be placed in "Cold Shutdown" are effectively equivalent to ITS Actions requiring the plant be placed in "MODE 5." Therefore, this change in definition will have no operational effect.

6. CTS "Refueling Shutdown" is essentially equivalent to ITS "MODE 6." Each, when taken with other definitions and LCO requirements, represents a condition with the reactor at least 5% shutdown. Therefore, this change in definition will have no operational effect.

F. **THE MAJOR CHANGES FROM CTS (as modified by pending TSCRs) TO ITS**

1. ITS and ISTS both include LCOs 3.0.6 and 3.0.7 which do not appear in CTS. LCO 3.0.6 addresses actions to be taken when a required support system becomes inoperable; LCO 3.0.7 addresses Test Exception LCOs.

## G. THE MAJOR DIFFERENCES BETWEEN ITS AND ISTS

1. In the Actions of several LCOs, NUREG 1432 lists a time to reach MODE 4 of 12 hours (13 hours for LCO 3.0.3, where the specified times include an extra hour for preparation). This item is "bracketed" in NUREG-1432, indicating that it is to be replaced by a plant specific number. The time allowed to reach MODE 4 in NUREG-1432 is bracketed since some CE plant designs require a longer time than most. In the ITS, this time is increased to 30 hours (31 hours for LCO 3.0.3). At Palisades, increasing the time allowed to reach MODE 4 allows for more complete degassing of the Primary Coolant System (PCS). The PCS is degassed by venting the pressurizer gas space to the Vacuum Degasifier. The efficiency of this method is maximized by maintaining PCS temperature as high as practical, the subcooling as low as practical, and operating all pressurizer heaters. This results in a net increase in the rate of hydrogen removal from the PCS since increased spray flow and lower PCS pressure offset the lower degas flow rate through the vent path. While the total time to reach MODE 4 is increased, the time to reach MODE 5 is the same in the proposed ITS as specified in NUREG-1432.

# ATTACHMENT 1

# PALISADES NUCLEAR PLANT

# CHAPTER 3.0, LCO & SR APPLICABILITY

# PROPOSED TECHNICAL SPECIFICATIONS

## 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

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 and LCO 3.0.7.

LCO 3.0.2 Upon discovery of a failure to meet an LCO, the Required Actions 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 Completion Time(s), completion of the Required Action(s) is not required, unless otherwise stated.

LCO 3.0.3 When an LCO is not met and the associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, the plant shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the plant, as applicable, in:

a. MODE 3 within 7 hours;

b. MODE 4 within 31 hours; and

c. MODE 5 within 37 hours.

Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.

## 3.0 LCO APPLICABILITY

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

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or a shutdown performed in response to the expected failure to comply with ACTIONS.

Exceptions to this Specification are stated in the individual Specifications.

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LCO 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 LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

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LCO 3.0.6 When a supported system LCO is not met solely due to a support system LCO not being met, the Conditions and Required 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 5.5.13, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered. When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

## 3.0 LCO APPLICABILITY

LCO 3.0.7 Special Test Exception (STE) LCOs in each applicable LCO section allow specified Technical Specifications (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with STE LCOs is optional. When an STE LCO is desired to be met but is not met, the ACTIONS of the STE LCO shall be met. When an STE LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with the other applicable Specifications.

## 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1

SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

SR 3.0.2

The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

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

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

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3

If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is less. This delay period is permitted to allow performance of the Surveillance.

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

## 3.0 SR APPLICABILITY

| | |
|---|---|
| SR 3.0.3 (continued) | When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be declared not met, and the applicable Condition(s) must be entered. |
| SR 3.0.4 | Entry into a MODE or other specified condition in the Applicability of an LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or a shutdown performed in response to the expected failure to comply with ACTIONS. |

# ATTACHMENT 2

# PALISADES NUCLEAR PLANT

# CHAPTER 3.0, LCO & SR APPLICABILITY

# PROPOSED BASES

# B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

| | |
|---|---|
| LCO | LCO 3.0.1 through LCO 3.0.7 establish the general requirements applicable to all Specifications and apply at all times unless otherwise stated. |
| LCO 3.0.1 | LCO 3.0.1 establishes the Applicability statement within each individual Specification as the requirement for when the LCO is required to be met (i.e., when the plant is in the MODES or other specified conditions of the Applicability statement of each Specification). |
| LCO 3.0.2 | LCO 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 Required Action for an ACTIONS Condition is applicable from the point in time that an ACTIONS Condition is entered. The Required Actions establish those remedial measures that must be taken within specified Completion Times when the requirements of an LCO are not met. This Specification establishes that:<br><br>a. Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification; and<br><br>b. Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified.<br><br>There are two basic types of Required Actions. The first type of Required 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.<br><br>If this type of Required Action is not completed within the specified Completion Time, a shutdown may be required to place the plant in a MODE or condition in which the Specification is not applicable. (Whether stated as a Required Action or not, correction of the entered Condition is an action that may always be considered upon entering ACTIONS.) |

BASES

LCO 3.0.2 (continued)

The second type of Required Action specifies the remedial measures that permit continued operation of the plant that is not further restricted by the Completion Time. In this case, compliance with the Required Actions provides an acceptable level of safety for continued operation.

Completing the Required Actions is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.

The nature of some Required Actions of some Conditions necessitates that, once the Condition is entered, the Required Actions must be completed even though the associated Conditions no longer exist. The individual LCO's ACTIONS specify the Required Actions where this is the case. An example of this is in LCO 3.4.3, "PCS Pressure and Temperature (P/T) Limits."

The Completion Times of the Required 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 other conditions exist which may result in LCO 3.0.3 being entered. Individual Specifications may specify a time limit for performing an SR when equipment is removed from service or bypassed for testing. In this case, the Completion Times of the Required 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 Required Actions, the plant may enter a MODE or other specified condition in which another Specification becomes applicable. In this case, the Completion Times of the associated Required Actions would apply from the point in time that the new Specification becomes applicable and the ACTIONS Condition(s) are entered.

BASES

LCO 3.0.3

LCO 3.0.3 establishes the actions that must be implemented when an LCO is not met and:

a. An associated Required Action and Completion Time is not met and no other Condition applies; or

b. The condition of the plant is not specifically addressed by the associated ACTIONS. This means that no combination of Conditions stated in the ACTIONS can be made that exactly corresponds to the actual condition of the plant. Sometimes, possible combinations of Conditions are such that entering LCO 3.0.3 is warranted; in such cases, the ACTIONS specifically state a Condition corresponding to such combinations and also that LCO 3.0.3 be entered immediately.

This Specification delineates the time limits for placing the plant in a safe MODE or other specified condition when operation cannot be maintained within the limits for safe operation as defined by the LCO and its ACTIONS. It is not intended to be used as an operational convenience that 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.

Upon entering LCO 3.0.3, 1 hour is allowed to prepare for an orderly shutdown before initiating a change in plant operation. This includes time to permit 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 capabilities of the plant, assuming that 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 to which this Specification applies. The use and interpretation of specified times to complete the actions of LCO 3.0.3 are consistent with the discussion of Section 1.3, Completion Times.

BASES

LCO 3.0.3 (continued)

A plant shutdown required in accordance with LCO 3.0.3 may be terminated and LCO 3.0.3 exited if any of the following occurs:

a. The LCO is now met.

b. A Condition exists for which the Required Actions have now been performed.

c. ACTIONS exist that do not have expired Completion Times. These Completion Times are applicable from the point in time that the Condition is initially entered and not from the time LCO 3.0.3 is exited.

The time limits of Specification 3.0.3 allow 37 hours for the plant to be in MODE 5 when a shutdown is required during MODE 1 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 applies. If a lower MODE is reached in less time than allowed, however, the total allowable time to reach MODE 5, or other applicable MODE, is not reduced. For example, if MODE 3 is reached in 2 hours, then the time allowed for reaching MODE 4 is the next 29 hours, because the total time for reaching MODE 4 is not reduced from the allowable limit of 31 hours. Therefore, if remedial measures are completed that would permit a return to MODE 1, a penalty is not incurred by having to reach a lower MODE of operation in less than the total time allowed.

In MODES 1, 2, 3, and 4, LCO 3.0.3 provides actions for Conditions not covered in other Specifications. The requirements of LCO 3.0.3 do not apply in MODES 5 and 6 because the plant is already in the most restrictive Condition required by LCO 3.0.3.

The requirements of LCO 3.0.3 do not apply in other specified conditions of the Applicability (unless in MODE 1, 2, 3, or 4) because the ACTIONS of individual Specifications sufficiently define the remedial measures to be taken. Exceptions to LCO 3.0.3 are provided in instances where requiring a plant shutdown, in accordance with LCO 3.0.3, would not provide appropriate remedial measures for the associated condition of the plant. An example of this is in LCO 3.7.14, "Spent Fuel Pool Water Level."

BASES

LCO 3.0.3 (continued)

LCO 3.7.14 has an Applicability of "During movement of irradiated fuel assemblies in the spent fuel pool." Therefore, this LCO can be applicable in any or all MODES. If the LCO and the Required Actions of LCO 3.7.14 are not met while in MODE 1, 2, or 3, there is no safety benefit to be gained by placing the plant in a shutdown condition. The Required Action of LCO 3.7.14 of "Suspend movement of irradiated fuel assemblies in spent fuel pool" is the appropriate Required Action to complete in lieu of the actions of LCO 3.0.3. These exceptions are addressed in the individual Specifications.

LCO 3.0.4

LCO 3.0.4 establishes limitations on changes in MODES or other specified conditions in the Applicability when an LCO is not met. It precludes placing the plant in a MODE or other specified condition stated in that Applicability (e.g., Applicability desired to be entered) when the following exist:

a. Plant conditions are such that the requirements of the LCO would not be met in the Applicability desired to be entered; and

b. Continued noncompliance with the LCO requirements, if the Applicability were entered, would result in the plant being required to exit the Applicability desired to be entered to comply with the Required Actions.

Compliance with Required Actions that permit continued operation of the plant 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 plant 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 Required Actions. 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.

BASES

LCO 3.0.4 (continued)

The provisions of LCO 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 LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from a shutdown performed in response to the excepted failure to comply with ACTIONS.

Exceptions to LCO 3.0.4 are stated in the individual Specifications. The exceptions allow 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. Exceptions may apply to all the ACTIONS or to a specific Required Action of a Specification.

LCO 3.0.4 is applicable when entering all MODES or other specified conditions, whether increasing in MODES (e.g., MODE 5 to MODE 4) or decreasing in MODES (e.g., MODE 4 to MODE 5). The requirements precluding entry into another MODE or other specified condition when the associated ACTIONS do not provide for continued operation for an unlimited period of time ensures that the plant maintains sufficient equipment OPERABILITY and redundancy as assumed in the accident analysis.

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 3.0.1. Therefore, changing MODES or other specified conditions while in an ACTIONS Condition, in compliance with LCO 3.0.4 or where an exception to LCO 3.0.4 is stated, is not a violation of SR 3.0.1 or SR 3.0.4 for those Surveillances that do not have to be performed due to the associated 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.

BASES

LCO 3.0.5

LCO 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with ACTIONS. The sole purpose of this Specification is to provide an exception to LCO 3.0.2 (e.g., to not comply with the applicable Required Action(s)) to allow the performance of required testing to demonstrate:

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 required testing to demonstrate OPERABILITY. 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.

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.

BASES

LCO 3.0.6

LCO 3.0.6 establishes an exception to LCO 3.0.2 for support systems that have an LCO specified in the Technical Specifications (TS). This exception is provided because LCO 3.0.2 would require that the Conditions and Required 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 Required Actions. These Required Actions may include entering the supported system's Conditions and Required Actions or may specify other Required 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' Conditions and Required Actions unless directed to do so by the support system's Required Actions. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCO's Conditions and Required 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 Required Actions.

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

BASES

LCO 3.0.6 (continued)

Specification 5.5.13, "Safety Functions 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 Conditions and Required Actions. The SFDP implements the requirements of LCO 3.0.6.

Cross train checks to identify a loss of safety function for those support systems that support multiple and redundant safety systems are required. The cross train check verifies that the supported systems of the redundant OPERABLE support system are OPERABLE, thereby ensuring safety function is retained.

If this evaluation determines that a loss of safety function exists, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

LCO 3.0.7

Special tests and operations are required at various times over the plant's life to demonstrate performance characteristics, to perform maintenance activities, and to perform special evaluations. Because TS normally preclude these tests and operations, Special Test Exceptions (STEs) allow specified requirements to be changed or suspended under controlled conditions. STEs are included in applicable sections of the Specifications. Unless otherwise specified, all other TS requirements remain unchanged and in effect as applicable. This will ensure that all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed or suspended to perform the special test or operation will remain in effect.

The Applicability of an STE LCO represents a condition not necessarily in compliance with the normal requirements of the TS. Compliance with STE LCO is optional.

BASES

LCO 3.0.7 (continued)

A special test may be performed under either the provisions of the appropriate STE LCO or the other applicable TS requirements. If it is desired to perform the special test under the provisions of the STE LCO, the requirements of the STE LCO shall be followed. This includes the SRs specified in the STE LCO.

Some of the STE LCO require that one or more of the LCO for normal operation be met (i.e., meeting the STE LCO requires meeting the specified normal LCO). The Applicability, ACTIONS, and SRs of the specified normal LCO, however, are not required to be met in order to meet the STE LCO when it is in effect. This means that, upon failure to meet a specified normal LCO, the associated ACTIONS of the STE LCO apply, in lieu of the ACTIONS of the normal LCO. Exceptions to the above do exist.

There are instances when the Applicability of the specified normal LCO must be met, where its ACTIONS must be taken, where certain of its Surveillances must be performed, or where all of these requirements must be met concurrently with the requirements of the STE LCO.

Unless the SRs of the specified normal LCO are suspended or changed by the special test, those SRs that are necessary to meet the specified normal LCO must be met prior to performing the special test. During the conduct of the special test, those Surveillances need not be performed unless specified by the ACTIONS or SRs of the STE LCO.

ACTIONS for STE LCO provide appropriate remedial measures upon failure to meet the STE LCO. Upon failure to meet these ACTIONS, suspend the performance of the special test and enter the ACTIONS for all LCOs that are then not met. Entry into LCO 3.0.3 may possibly be required, but this determination should not be made by considering only the failure to meet the ACTIONS of the STE LCO.

# B 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

BASES

SRs

SR 3.0.1 through SR 3.0.4 establish the general requirements applicable to all Specifications and apply at all times, unless otherwise stated.

SR 3.0.1

SR 3.0.1 establishes the requirement that SRs must be met during the MODES or other specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual SRs. This Specification is to ensure that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified Frequency, in accordance with SR 3.0.2, constitutes a failure to meet an LCO.

Systems and components are assumed to be OPERABLE when the associated SRs have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when:

a. The systems or components are known to be inoperable, although still meeting the SRs; or

b. The requirements of the Surveillance(s) are known to be not met between required Surveillance performances.

Surveillances do not have to be performed when the plant is in a MODE or other specified condition for which the requirements of the associated LCO are not applicable, unless otherwise specified. The SRs associated with a Special Test Exception (STE) are only applicable when the STE is used as an allowable exception to the requirements of a Specification.

Unplanned events may satisfy the requirements (including applicable acceptance criteria) for a given SR. In this case, the unplanned event may be credited as fulfilling the performance of the SR. This allowance includes those SRs whose performance is normally precluded in a given MODE or other specified condition.

BASES

SR 3.0.1 (continued)

Surveillances, including Surveillances invoked by Required Actions, do not have to be performed on inoperable equipment because the ACTIONS define the remedial measures that apply. Surveillances have to be met and performed in accordance with SR 3.0.2, prior to returning equipment to OPERABLE status.

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable Surveillances are not failed and their most recent performance is in accordance with SR 3.0.2. Post maintenance testing may not be possible in the current MODE or other specified conditions in the Applicability due to the necessary plant parameters not having been established. In these situations, the equipment may be considered OPERABLE provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow operation to proceed to a MODE or other specified condition where other necessary post maintenance tests can be completed.

An example of this process is:

a. High Pressure Safety Injection (HPSI) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with HPSI considered OPERABLE. This allows operation to reach the specified pressure to complete the necessary post maintenance testing.

SR 3.0.2

SR 3.0.2 establishes the requirements for meeting the specified Frequency for Surveillances and any Required Action with a Completion Time that requires the periodic performance of the Required Action on a "once per..." interval.

SR 3.0.2 permits a 25% extension of the interval specified in the Frequency. This extension facilitates Surveillance scheduling and considers plant operating conditions that may not be suitable for conducting the Surveillance (e.g., transient conditions or other ongoing Surveillance or maintenance activities).

BASES

SR 3.0.2 (continued)

The 25% extension does not significantly degrade the reliability that results from performing the Surveillance at its specified Frequency. This is based on the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the SRs. The exceptions to SR 3.0.2 are those Surveillances for which the 25% extension of the interval specified in the Frequency does not apply. These exceptions are stated in the individual Specifications. An example of where SR 3.0.2 does not apply is the Containment Leak Rate Testing Program.

As stated in SR 3.0.2, the 25% extension also does not apply to the initial portion of a periodic Completion Time that requires performance on a "once per..." basis. The 25% extension applies to each performance after the initial performance. The initial performance of the Required Action, whether it is a particular Surveillance or some other remedial action, is considered a single action with a single Completion Time. One reason for not allowing the 25% extension to this Completion Time is that such an action usually verifies that no loss of function has occurred by checking the status of redundant or diverse components or accomplishes the function of the inoperable equipment in an alternative manner.

The provisions of SR 3.0.2 are not intended to be used repeatedly merely as an operational convenience to extend Surveillance intervals (other than those consistent with refueling intervals) or periodic Completion Time intervals beyond those specified.

SR 3.0.3

SR 3.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not been completed within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is less, applies from the point in time that it is discovered that the Surveillance has not been performed in accordance with SR 3.0.2, and not at the time that the specified Frequency was not met.

BASES

SR 3.0.3 (continued)

This delay period provides an adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with Required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of plant conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements.

When a Surveillance with a Frequency based not on time intervals, but upon specified plant conditions or operational situations, is discovered not to have been performed when specified, SR 3.0.3 allows the full delay period of 24 hours to perform the Surveillance.

SR 3.0.3 also provides a time limit for completion of Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals.

If a Surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the equipment is inoperable, or the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon the failure of the Surveillance.

Completion of the Surveillance within the delay period allowed by this Specification, or within the Completion Time of the ACTIONS, restores compliance with SR 3.0.1.

BASES

SR 3.0.4

SR 3.0.4 establishes the requirement that all applicable 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 plant.

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.

However, in certain circumstances, failing to meet an SR will not result in SR 3.0.4 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 SR 3.0.1, which states that surveillances do not have to be performed on inoperable equipment. When equipment is inoperable, SR 3.0.4 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 an SR 3.0.4 restriction to changing MODES or other specified conditions of the Applicability. However, since the LCO is not met in this instance, LCO 3.0.4 will govern any restrictions that may (or may not) apply to MODE or other specified condition changes.

The provisions of SR 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 LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from a shutdown performed in response to the expected failure to comply with ACTIONS.

BASES

SR 3.0.4 (continued)

The precise requirements 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 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.

SR 3.0.4 is applicable when entering all MODES or other specified conditions, whether increasing in MODES (e.g., MODE 5 to MODE 4) or decreasing in MODES (e.g., MODE 4 to MODE 5). The requirement precluding entry into another MODE or other specified condition when associated ACTIONS do not provide for continued operation for an unlimited period of time ensures that the plant maintains sufficient equipment OPERABILITY and redundancy as assumed in the accident analysis.

# ATTACHMENT 3

# PALISADES NUCLEAR PLANT

# CHAPTER 3.0, LCO & SR APPLICABILITY

# CTS MARKUP

# AND

# DISCUSSION OF CHANGES

A.1

# LIMITING CONDITIONS FOR OPERATION

## 3.0 APPLICABILITY

as provided in LCO 3.0.2 and LCO 3.0.7 — A.3

A.1 LCO 3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding Specifications is required during the plant conditions 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 LCO 3.0.5 and LCO 3.0.6

A.1 LCO 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 or is no longer applicable unless otherwise stated

A.4

A.1 LCO 3.0.3 When a Limiting Condition for Operation and/or associated action requirements cannot be satisfied because of circumstances in excess of those addressed in the specification, ~~within~~ one hour action shall be initiated to place the unit in a condition in ~~which the~~ Specification does not apply by placing it, as applicable, in: or if directed by the associated ACTIONS

M.1

1. At least HOT STANDBY (MODE 3) within the next 6 (7) hours,
2. At least HOT SHUTDOWN (MODE 4) within the following 6 (31) hours, and
3. At least COLD SHUTDOWN (MODE 5) within the subsequent 24 (37) hours.

A.5

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.

completion of the actions required by LCO 3.0.3 is not required

A.6 LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4

A.1 LCO 3.0.4 Entry into a reactor operating condition 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 a reactor operating condition or other 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 reactor operating conditions as required to comply with action requirements. Exceptions to these requirements are stated in the individual specifications.

A.7

A.1 LCO 3.0.5 Equipment removed from service or declared inoperable to comply with ~~action~~ requirements 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 Specification 3.0.~~2~~ 2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

A.1 A.1

A.9 <INSERT 1 - LCO 3.0.6>

A.10 <INSERT 2 - LCO 3.0.7>

# CHAPTER 3.0

## INSERT 1 (LCO 3.0.6)

When a supported system LCO is not met solely due to a support system LCO not being met, the Conditions and Required 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 5.5.13, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

## INSERT 2 (LCO 3.0.7)

Special Test Exception (STE) LCOs in each applicable LCO allow specified Technical Specifications (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with STE LCOs is optional. When an STE LCO is desired to be met but is not met, the ACTIONS of the STE LCO shall be met. When an STE LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with the other applicable Specifications.

A.1 ③ ~~4~~.0 **SURVEILLANCE REQUIREMENTS** (SR) APPLICABILITY

A.1 SR ~~4~~ ③.0.1 Surveillance requirements shall be applicable during the reactor operating conditions associated with individual Limiting Conditions for Operation unless otherwise stated in an individual surveillance requirement. A.11 <INSERT 1>

A.1 SR ③ ~~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 surveillance interval as measured from the previous performance or as measured from the time a specified condition of the Frequency is met. A.8 <INSERT 2>

A.1 SR ③ ~~4~~.0.3 ~~Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, shall constitute noncompliance with the operability requirements for a Limiting Condition for Operation. The time limits of the action requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The action requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the action requirements are less than 24 hours.~~ Surveillance Requirements do not have to be performed on inoperable equipment or variables outside specified limits. A.11

M.2 <INSERT 3>

A.1 SR ③ ~~4~~.0.4 Entry into a reactor operating condition or other specified condition shall not be made unless the Surveillance Requirements associated with a Limiting Condition of Operation has been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to plant conditions as required to comply with action requirements.

A.11

## INSERT 1 (SR 3.0.1)

Failure to meet 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 LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3.

A.8

## INSERT 2 (SR 3.0.2)

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

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

Exceptions to this Specification are stated in the individual Specifications.

M.2

## INSERT 3 (SR 3.0.3)

If it is discovered that a Surveillance was not performed within its specified frequency, then compliance with the requirement to declare the LCO not met be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is less. This delay period is permitted to allow performance of the Surveillance.

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

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

A.1

| | |
|---|---|
| 4.0 | SURVEILLANCE REQUIREMENT (Continued) |
| 4.0.5 | Deleted |

## ADMINISTRATIVE CHANGES (A)

A.1 All reformatting and renumbering are in accordance with NUREG-1432. As a result, the Technical Specifications (TS) should be more readily readable, and therefore understandable by plant operators as well as other users. The reformatting, renumbering, and rewording process involves no technical changes to existing Technical Specifications.

Editorial rewording (either adding or deleting) is made consistent with NUREG-1432. During Improved Technical Specification (ITS) development certain wording preferences or English language conventions were adopted which resulted in no technical changes (either actual or implied) to the TS. Additional information has also been added to more fully describe each subsection. This wording is consistent with NUREG-1432. Since the design is already approved by the NRC, adding more details does not result in a technical change.

A.2 The Bases of the current Technical Specifications for this section have been completely replaced by revised Bases that reflect the format and applicable content consistent with NUREG-1432. The revised Bases are shown in the proposed Technical Specification Bases.

A.3 Current Technical Specification LCO 3.0.1 requires compliance with the LCO during the MODES or conditions specified in the Applicability, except that upon failure to meet the LCO, the associated Action requirements shall be met. The proposed change (ITS LCO 3.0.1) moves the phrase, "that upon failure to meet the LCO...," to LCO 3.0.2, and replaces it with, "as provided in LCO 3.0.2 and LCO 3.0.7." These changes are administrative because moving an exception from LCO 3.0.1 to LCO 3.0.2, and then referencing LCO 3.0.2 as an exception, has no impact on LCO 3.0.1. Also, allowing an exception to the LCO 3.0.1 requirement when Special Test Exceptions (STEs) (LCO 3.0.7) are invoked is consistent with NUREG-1432. The portion of LCO 3.0.1 which was moved to LCO 3.0.2 "that upon failure..." is discussed in Administrative Change A.4.

A.4 The first part of CTS LCO 3.0.2 defines when noncompliance exists with respect to the LCO (when LCO and Action requirements are not met). The second part of CTS LCO 3.0.2 states that the Action requirements do not have to be completed if the LCO is restored prior to the expiration of the allowed outage time. The proposed change deletes the first part of CTS LCO 3.0.2 and replaces it with the phrase relocated from CTS LCO 3.0.1 ("upon failure...") with the added phrase, "except as provided in LCO 3.0.5 and 3.0.6." The proposed change also adds the phrase "or is no longer applicable" and "unless otherwise stated."

These changes are administrative in nature as described below. The definition of when noncompliance with an LCO exists can be deleted as an administrative change because if the LCO is not met, then noncompliance exists. Also the term "noncompliance" is not used in the ITS. The addition of a portion of CTS LCO 3.0.1 is administrative because this requirement is only being moved and more appropriately fits with the subject matter of the second part of LCO 3.0.2. The addition of the exceptions (LCO 3.0.5 and 3.0.6) to the added sentence is appropriate. The exceptions allow equipment to be placed back in service for testing (LCO 3.0.5), and to not be declared inoperable when a supported system LCO is entered (LCO 3.0.6). LCO 3.0.5 exists in the CTS with a reference to LCO 3.0.1. With the restructuring of LCO 3.0.1, the exception is now appropriate for the discussion of LCO 3.0.2. This is an administrative change since the requirements have not changed but rather the presentation is revised. Proposed ITS LCO 3.0.6 represents a new "LCO Applicability" which does not exist in the CTS. The addition of LCO 3.0.6 is addressed in Administrative Change A.9. Providing a reference to LCO 3.0.6 is administrative change to maintain consistency within the TS. The added statement "or is no longer applicable" and "unless otherwise stated" documents and clarifies current industry practice. It allows the Actions to not be completed if the LCO is no longer applicable, or if specifically stated in the Specification that Actions do not have to be entered (i.e., a note that states LCO 3.0.2 is not applicable). This is considered to be an administrative change since industry accepted practice is now being explicitly stated in the TS. These changes are consistent with NUREG-1432.

A.5 From CTS LCO 3.0.3, proposed wording is added to state "or if directed by the associated ACTIONS" to reflect that some ACTIONS in the proposed ITS direct that LCO 3.0.3 be entered. Also the phrase "...the actions may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation." is removed and replaced by "completion of the actions required by LCO 3.0.3 is not required." The CTS phrase which was deleted allows that when corrective actions were completed (to exit LCO 3.0.3) operation under the actions may continue up to the remaining time allowed. The proposed phrase simplifies the discussion to limit it to only stating that where corrective measure are completed that permit operation in accordance with the LCO and ACTIONS, "...completion of the actions required by LCO 3.0.3 is not required." The proposed wording deletes the discussion about remaining time to operate in accordance with the actions since this is covered by LCO 3.0.2. These are considered to be administrative changes to clarify the allowed actions. These changes are consistent with NUREG-1432.

A.6 The phrase "LCO 3.0.3 is only applicable in MODES 1,2,3, and 4" is not in CTS LCO 3.0.3 but is included in proposed ITS LCO 3.0.3. However, these MODE limitations are consistent with the current application of CTS 3.0.3. The Palisades CTS Bases for LCO 3.0.3 which state that the requirements of CTS 3.0.3 "do not apply during cold shutdown and refueling" which infers the applicability to MODES 1, 2, 3, and 4. Therefore, this is considered to be an administrative change to restate the Applicability in a "positive" manner consistent with the proposed MODE definitions. This change is consistent with NUREG-1432.

A.7 In CTS LCO 3.0.4, the phrase "and the associated action requires a shutdown if they are not met within a specified time interval," is deleted. This phrase is unnecessary because another part of LCO 3.0.4 clarifies that entry can be made into a reactor operating condition (MODE in ITS) if actions permit continued operation for an unlimited period of time. This is considered to be an administrative change and in consistent with NUREG-1432.

A.8 CTS SR 4.0.2 is revised in the proposed ITS SR 3.0.2 to add the following wording:

"as measured from the previous performance or as measured from the time a specified condition of the Frequency is met."

And

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

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

Exceptions to this Specification are stated in the individual Specifications."

The first phrase "as measured..." was added to provide information for using this SR Applicability for conventions used in the ITS, and that the limit is measured from the previous performance or from the time a specified condition of the Frequency is met. The addition of clarifying information is considered to be an administrative change and is consistent with NUREG-1432.

The second set of information added (three sentences beginning with "For Frequencies...") in the proposed change clarifies when the 25% extension applies with respect to SR Frequencies and Required Action Completion Times. For Frequencies specified as "once" the extension does not apply in accordance with the rules established in NUREG-1432. For Completion Times requiring periodic performance on a "once per" basis the 25 % extension can be used on subsequent performances but the initial performance should be performed within the allotted time to confirm the parameter is within the limits. Subsequent performances are allowed to have the extension, in part, by the fact that the parameter has already been verified to be within limit. Exceptions are stated in the individual specifications. These changes are administrative as they are clarifying how to apply the Applicability rules. These changes are consistent with NUREG-1432.

A.9 CTS Specification 3.0 is revised to adopt the proposed ITS LCO 3.0.6. LCO 3.0.6 is added to provide guidance regarding the appropriate ACTIONS to be taken when a single inoperability (a support system) also results in the inoperability of one or more related systems (supported systems)). LCO 3.0.6 is used in conjunction with the newly created "Safety Function Determination Program" (SFDP), which is included as Specification 5.5.13 in the proposed ITS, to specify what actions must be taken when an inoperability is encountered to ensure that a loss of safety function does not exist. The Improved Standard Technical Specifications (NUREG-1432) were designed to be used in conjunction with LCO 3.0.6 and the SFDP to assist in removing the ambiguities and misunderstandings which results from applying current industry practices regarding support system operabilities to technical specifications which were not originally designed with those practices in mind. Since the function of LCO 3.0.6, when used with the SFDP and the Improved Specifications, is to clarify ambiguities which may exist in the application of the current specifications, this change is considered to be administrative. These changes are consistent with NUREG-1432.

A.10 CTS Specification 3.0 is revised to adopt ISTS Specification 3.0.7 in the ITS. This Specification provides guidance with regard to meeting Test Exception LCOs in proposed Specification 3.1.7, which allows certain Technical Specification requirements to be changed (i.e., made applicable in part or whole, or suspended) to permit performance of special tests or operations which otherwise could not be performed. This Specification eliminates confusion which would otherwise exist as to which LCOs apply during performance of a special test or operation. This change is therefore considered to be administrative, and is consistent with NUREG-1432.

A.11 CTS SR 4.0.1 is revised in proposed ITS SR 3.0.1 to add the following wording:

Failure to meet 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 LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3.

CTS SR 4.0.1 requires the SRs to be applicable during MODES, or other specified conditions specified associated with LCOs unless other wise stated. The proposed change is consistent with the CTS, however, it will add requirements that failure to meet the SR will constitute failure to meet the LCO. This is the accepted application of the CTS requirement and is therefore considered to be an administrative change.

A.11 (continued)

In addition to the changes discussed above, the following wording is taken from SR 4.0.3 and moved to proposed ITS SR 3.0.1 to match the presentation of NUREG-1432, "Surveillance Requirements do not have to be performed on inoperable equipment." This change simply moves the allowance to not perform Surveillance Requirements on inoperable equipment from one SR Applicability rule to another to match the overall format and context improvements made in NUREG-1432. The phrase "or variables outside specified limits" is also added in the proposed ITS SR 3.0.1 to clarify that this allowance applies to variables (i.e., pressure, temperature, flow, etc. parameters) and not just equipment since many LCOs are specified in terms of variables. This is an administrative change for completeness and is consistent with NUREG-1432.

## MORE RESTRICTIVE CHANGES (M)

M.1 The CTS LCO 3.0.3 uses the terminology HOT STANDBY, HOT SHUTDOWN, COLD SHUTDOWN for the shutdown track required, as compared to the ITS terminology MODE 3, MODE 4, and MODE 5. In the Definitions Section, 1.1, a comparison of the CTS and the ITS was made. However, LCO 3.0.3 introduces the element of time since the plant is required to be placed in a particular condition or MODE in a specified amount of time. Therefore, a more explicit comparison of the differences between the CTS and the ITS can be made.

The CTS HOT STANDBY would require that Tave was greater than 525°F, any of the control rods are withdrawn, and the power is less than 2% of Rated Power. These conditions must be achieved in 6 hours after the initial one hour to prepare for a shutdown. The ITS MODE 3 would have Keff $<.99$, and average coolant temperature $\geq$ 300°F in a total of 7 hours (includes the one hour preparation time). Therefore, the ITS is considered to be more restrictive since the Keff must be $<$ .99 in the proposed ITS whereas it still could be critical in the CTS.

M.1 (continued)

CTS HOT SHUTDOWN would require that the reactor be subcritical by an amount greater than or equal to the margin in Technical Specification 3.10 (this would be either 2% SHUTDOWN MARGIN (SDM) for all pumps running or 3.75% SDM with less than four pumps running), and that Tave > 525°F. These conditions must be achieved in 6 hours from CTS HOT STANDBY (total of 13 hours). The proposed ITS MODE 4 would require that Keff <.99 and average coolant temperature be >200°F and <300°F. This must be achieved in a total of 31 hours in the proposed ITS. This is considered to be more restrictive since the temperature reduction must be < 300°F in the proposed ITS while it is > 525°F to be in HOT SHUTDOWN in the CTS. Since the proposed ITS MODE 4 is a different set of operating conditions than the CTS "HOT SHUTDOWN," more time is needed to reach these conditions. However, the time to reach the ITS MODE 5 is equivalent to the time to reach COLD SHUTDOWN in the CTS. The CTS SDM requirements are addressed in the proposed ITS in Section 3.1. The <.99 keff in MODE 4 is simply defining the allowed reactivity condition for the MODE (Table 1.1-1). Therefore, the proposed ITS MODE 4 is still considered to be more restrictive.

CTS COLD SHUTDOWN is defined as being at the SHUTDOWN BORON CONCENTRATION and Tave is < 210°F. The SHUTDOWN BORON CONCENTRATION is interpreted in current practice as being the boron concentration required for COLD SHUTDOWN conditions. This must be achieved in 24 hours from CTS HOT SHUTDOWN for a total of 37 hours. In the proposed ITS, MODE 5, is defined in terms of average coolant temperature being ≤ 200 F and Keff <.99. This must be achieved in a total of 37 hours. As was the case for MODE 4, the SDM requirements of the CTS are covered in Section 3.1, Reactivity Control. The Keff being < .99 is simply defining the allowed reactivity condition for the MODE as a reference point. While the impact from the CTS COLD SHUTDOWN to the ITS MODE 5 is minimal, it is considered to be slightly more restrictive since the temperature must be reduced to 200°F in the proposed ITS versus 210°F in the CTS. However, this is not considered to be a significant change. The change to 200°F in the proposed ITS was done primarily to bring the plant in line with current industry practice.

Based on the above discussion the overall effect of the shutdown requirements for the proposed ITS LCO 3.0.3 are considered to be "more restrictive" than those in the CTS LCO 3.0.3. The proposed ITS LCO 3.0.3 is consistent with NUREG-1432.

M.2 CTS 4.0.3 contains the concept that if it is identified that a surveillance has not been performed, a delay in taking the required actions is allowed. The delay period is expressed in terms of 24 hours when the allowable outage time limits of the action requirements are less than 24 hours. In proposed ITS SR 3.0.3, the same concept is used in that a delay period to declare the LCO not met is allowed for up to 24 hours or up to the limit of the specified frequency, whichever is less. Therefore, the proposed ITS SR 3.0.3 preserves the fact that time should be allowed to perform a surveillance if it is discovered that the surveillance has not been performed, but references the available delay to the specified frequency of the surveillance as opposed to the allowable outage time of the CTS. If, for example, a piece of equipment had a surveillance performed on a 12 hour basis, with a 4 hour Allowable Outage Time (AOT), the delay period would only be 12 hours as allowed by ITS SR 3.0.3 (frequency less than 24 hours), as opposed to the CTS 4.0.3 which would allow.

24 hours since the AOT is less than 24 hours. In the majority of situations, the CTS SR 4.0.3 will allow more time than the proposed ITS SR 3.0.3 since a minimum of 24 hours is given in all situations whereas, the ITS SR 3.0.3 case will only give 24 hours if the frequency is greater than or equal to 24 hours.

To facilitate the presentation of the ITS allowance, the wording of the CTS 4.0.3 is replaced by the wording of proposed ITS SR 3.0.3 except for the last sentence of CTS 4.0.3 which was moved to proposed SR 3.0.1 as discussed in DOC A.11.

## LESS RESTRICTIVE CHANGES-REMOVAL OF DETAILS TO LICENSEE CONTROLLED DOCUMENTS (LA)

There were no "Removal of Details" changes made in Chapter 3.0.

## LESS RESTRICTIVE CHANGES (L)

There were no "Less Restrictive" changes made in Chapter 3.0.

## RELOCATED (R)

There were no "Relocated" changes made in Chapter 3.0.

# ATTACHMENT 4

# PALISADES NUCLEAR PLANT

# CHAPTER 3.0, LCO & SR APPLICABILITY

# NO SIGNIFICANT HAZARDS CONSIDERATION

## ADMINISTRATIVE CHANGES

The Palisades Nuclear Plant is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1432, "Standard Technical Specifications, Combustion Engineering Plants." Some of the proposed changes involve reformatting, renumbering, and rewording of Technical Specifications. These changes, since they do not involve technical changes to the Technical Specifications, are administrative.

This type of change is connected with the movement of requirements within the current requirements, or with the modification of wording which does not affect the technical content of the current Technical Specifications. These changes will also include nontechnical modifications of requirements to conform to the Writer's Guide or provide consistency with the Improved Standard Technical Specifications in NUREG-1432. Administrative changes are not intended to add, delete, or relocate any technical requirements of the current Technical Specifications.

In accordance with the criteria set forth in 10 CFR 50.92, Palisades Nuclear Plant staff has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed changes involve reformatting, renumbering, and rewording of the existing Technical Specification. These modifications involve no technical changes to the existing Technical Specifications. The majority of changes were done in order to be consistent with NUREG-1432. During the development of NUREG-1432, certain wording preferences or English language conventions were adopted. The changes are administrative in nature and do not impact initiators of analyzed events. They also do not impact the assumed mitigation of accidents or transient events. Therefore, the changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed changes involve reformatting, renumbering, and rewording of the existing Technical Specifications. The changes do not involve a physical alteration of the plant (no new or different type of equipment will be installed) or changes in methods governing normal plant operation. The changes will not impose any new or different requirements or eliminate any existing requirements. Therefore, the changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **Does this change involve a significant reduction in margin of safety?**

   The proposed changes involve reformatting, renumbering, and rewording of the existing Technical Specifications. The changes are administrative in nature and will not involve any technical changes. The changes will not reduce a margin of safety because it has no impact on any safety analysis assumptions. Also, since these changes are administrative in nature, no question of safety is involved. Therefore, the changes do not involve a significant reduction in a margin of safety.

## MORE RESTRICTIVE CHANGES

The Palisades Nuclear Plant is converting to the Improved Technical Specifications (ITS) as outlined in NUREG-1432, "Standard Technical Specifications, Combustion Engineering Plants." Some of the proposed changes involve adding more restrictive requirements to the existing Technical Specifications by either making current requirements more stringent or by adding new requirements which currently do not exist.

These changes may include additional requirements that decrease allowed outage time, increase frequency of surveillance, impose additional surveillance, increase the scope of a specification to include additional plant equipment, increase the applicability of a specification, or provide additional actions. These changes are generally made to conform with the NUREG-1432.

In accordance with the criteria set forth in 10 CFR 50.92, the Palisades Nuclear Plant has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

   The proposed changes provide more stringent requirements than previously existed in the Technical Specifications. These more stringent requirements do not result in operation that will increase the probability of initiating an analyzed event. If anything, the new requirements may decrease the probability or consequences of an analyzed event by incorporating the more restrictive changes. The changes do not alter assumptions relative to mitigation of an accident or transient event. The more restrictive requirements continue to ensure process variables, structures, systems, and components are maintained consistent with the safety analyses and licensing basis. Therefore, the changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   The proposed changes provide more stringent requirements than previously existed in the Technical Specifications. The changes do not alter the plant configuration (no new or different type of equipment will be installed) or make changes in the methods governing normal plant operation. The changes do impose different requirements. However, these changes are consistent with the assumptions in the safety analyses and licensing basis. Therefore, the changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **Does this change involve a significant reduction in margin of safety?**

   The proposed changes provide more stringent requirements than previously existed in the Technical Specifications. Adding more restrictive requirements either increases or has no impact on the margin of safety. The changes, by definition, provide additional restrictions to enhance plant safety. The changes maintain requirements within the safety analyses and licensing basis. As such, no question of safety is involved. Therefore, the changes do not involve a significant reduction in a margin of safety.

## LESS RESTRICTIVE CHANGES - REMOVAL OF DETAILS TO LICENSEE CONTROLLED DOCUMENTS

There were no "Removal of Details" changes made to Chapter 3.

## LESS RESTRICTIVE CHANGES

There were no "Less Restrictive Changes" made in Chapter 3.

# ATTACHMENT 5

# PALISADES NUCLEAR PLANT

# CHAPTER 3.0, LCO & SR APPLICABILITY

# MARKUP OF NUREG-1432

# TECHNICAL SPECIFICATIONS

## 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

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 and LCO 3.0.7.

LCO 3.0.2 Upon discovery of a failure to meet an LCO, the Required Actions 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 Completion Time(s), completion of the Required Action(s) is not required, unless otherwise stated.

LCO 3.0.3 When an LCO is not met and the plant associated ACTIONS are not met, an associated ACTION is not provided, or if directed by the associated ACTIONS, the ~~unit~~ shall be placed in a MODE or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the plant ~~unit~~, as applicable, in:

a. MODE 3 within 7 hours;

b. ~~[~~MODE 4 within ~~13~~ 31 hours~~]~~; and

c. MODE 5 within 37 hours.

Exceptions to this Specification are stated in the individual Specifications.

Where corrective measures are completed that permit operation in accordance with the LCO or ACTIONS, completion of the actions required by LCO 3.0.3 is not required.

LCO 3.0.3 is only applicable in MODES 1, 2, 3, and 4.

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

(continued)

## 3.0 LCO APPLICABILITY

LCO 3.0.4 (continued)

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~~ a shutdown performed in response to the expected failure to comply with ACTIONS.

Exceptions to this Specification are stated in the individual Specifications. ~~These exceptions allow entry into MODES or other specified conditions in the Applicability when the associated ACTIONS to be entered allow unit operation in the MODE or other specified condition in the Applicability only for a limited period of time.~~

~~LCO 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4.~~

~~Reviewers's Note: LCO 3.0.4 has been revised so that changes in MODES or other specified conditions in the Applicability that are part of a shutdown of the unit shall not be prevented. In addition, LCO 3.0.4 has been revised so that it is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4. The MODE change restrictions in LCO 3.0.4 were previously applicable in all MODES. Before this version of LCO 3.0.4 can be implemented on a plant-specific basis, the licensee must review the existing technical specifications to determine where specific restrictions on MODE changes or Required Actions should be included in individual LCOs to justify this change; such an evaluation should be summarized in a matrix of all existing LCOs to facilitate NRC staff review of a conversion to the STS.~~

LCO 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 LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

(continued)

## 3.0 LCO APPLICABILITY (continued)

**LCO 3.0.6** When a supported system LCO is not met solely due to a support system LCO not being met, the Conditions and Required 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, ~~additional~~ evaluations ~~and limitations may be required~~ in accordance with Specification 5.5.15, "Safety Function Determination Program (SFDP)." If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

**LCO 3.0.7** Special Test Exception (STE) LCOs in each applicable LCO section allow specified Technical Specifications (TS) requirements to be changed to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with STE LCOs is optional. When an STE LCO is desired to be met but is not met, the ACTIONS of the STE LCO shall be met. When an STE LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with the other applicable Specifications.

## 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1

SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

SR 3.0.2

The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

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

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

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3

If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is less. This delay period is permitted to allow performance of the Surveillance.

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

When the Surveillance is performed within the delay period and the Surveillance is not met, the LCO must immediately be

(continued)



Palisades Nuclear Plant
(change Throughout)

## 3.0 SR APPLICABILITY

SR 3.0.3 (continued) declared not met, and the applicable Condition(s) must be entered.

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. 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.

6

LCO 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4.

6

Reviewer's Note: SR 3.0.4 has been revised so that changes in MODES or other specified conditions in the Applicability that are part of a shutdown of the unit shall not be prevented. In addition, SR 3.0.4 has been revised so that it is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3, and 4. The MODE change restrictions in SR 3.0.4 were previously applicable in all MODES. Before this version of SR 3.0.4 can be implemented on a plant-specific basis, the licensee must review the existing technical specifications to determine where specific restrictions on MODE changes or Required Actions should be included in individual LCOs to justify this change; such an evaluation should be summarized in a matrix of all existing LCOs to facilitate NRC staff review of a conversion to the STS.

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a shutdown performed in response to the expected failure to comply with ACTIONS

## B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

### BASES

LCOs

LCO 3.0.1 through LCO 3.0.7 establish the general requirements applicable to all Specifications and apply at all times unless otherwise stated.

LCO 3.0.1

(4) LCO 3.0.1 establishes the Applicability statement within each individual Specification as the requirement for when the LCO is required to be met (i.e., when the ~~unit~~ plant is in the MODES or other specified conditions of the Applicability statement of each Specification).

LCO 3.0.2

LCO 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 Required Action for an ACTIONS Condition is applicable from the point in time that an ACTIONS Condition is entered. The Required Actions establish those remedial measures that must be taken within specified Completion Times when the requirements of an LCO are not met. This Specification establishes that:

a. Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification; and

b. Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified.

There are two basic types of Required Actions. The first type of Required 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 Required Action is not completed within the specified Completion Time, a shutdown may be required to (4) place the ~~unit~~ plant in a MODE or condition in which the Specification is not applicable. (Whether stated as a Required Action or not, correction of the entered Condition is an action that may always be considered upon entering

(continued)

BASES

LCO 3.0.2 (continued)

4 | plant

ACTIONS.) The second type of Required 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 Required Actions provides an acceptable level of safety for continued operation.

Completing the Required Actions is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.

The nature of some Required Actions of some Conditions necessitates that, once the Condition is entered, the Required Actions must be completed even though the associated Conditions no longer exist. The individual LCO's ACTIONS specify the Required Actions where this is the case. An example of this is in LCO 3.4.3, "RCS Pressure and Temperature (P/T) Limits."

4 | PCS

The Completion Times of the Required 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. Alternatives that would not result in redundant equipment being inoperable should be used instead. Doing so limits the time both subsystems/trains of a safety function are inoperable and limits the time other conditions exist which result in LCO 3.0.3 being entered. Individual Specifications may specify a time limit for performing an SR when equipment is removed from service or bypassed for testing. In this case, the Completion Times of the Required Actions are applicable when this time limit expires, if the equipment remains removed from service or bypassed.

Additionally, if intentional entry into ACTIONS

alternatives

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may

4 | plant

When a change in MODE or other specified condition is required to comply with Required 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 Required Actions would apply from the point in time that the new Specification becomes applicable and the ACTIONS Condition(s) are entered.

(continued)

BASES (continued)

LCO 3.0.3

LCO 3.0.3 establishes the actions that must be implemented when an LCO is not met and:

a. An associated Required Action and Completion Time is not met and no other Condition applies; or

4 b. The condition of the ~~unit~~ plant is not specifically addressed by the associated ACTIONS. This means that no combination of Conditions stated in the ACTIONS can be made that exactly corresponds to the actual 4 condition of the ~~unit~~ plant. Sometimes, possible combinations of Conditions are such that entering LCO 3.0.3 is warranted; in such cases, the ACTIONS specifically state a Condition corresponding to such combinations and also that LCO 3.0.3 be entered immediately.

This Specification delineates the time limits for placing 4 the ~~unit~~ plant in a safe MODE or other specified condition when operation cannot be maintained within the limits for safe operation as defined by the LCO and its ACTIONS. It is not intended to be used as an operational convenience that 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.

4 Upon entering LCO 3.0.3, 1 hour is allowed to prepare for an orderly shutdown before initiating a change in ~~unit~~ plant operation. This includes time to permit 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 capabilities 4 of the ~~unit~~ plant, assuming that only the minimum required equipment is OPERABLE. This reduces thermal stresses on 4 components of the ~~Reactor~~ Primary Coolant System and the potential for a plant upset that could challenge safety systems under conditions to which this Specification applies. The use and interpretation of specified times to complete the actions of LCO 3.0.3 are consistent with the discussion of Section 1.3, Completion Times.

(continued)

BASES

LCO 3.0.3 (continued)

A ~~unit~~ plant shutdown required in accordance with LCO 3.0.3 may be terminated and LCO 3.0.3 exited if any of the following occurs:

a. The LCO is now met.

b. A Condition exists for which the Required Actions have now been performed.

c. ACTIONS exist that do not have expired Completion Times. These Completion Times are applicable from the point in time that the Condition is initially entered and not from the time LCO 3.0.3 is exited.

The time limits of Specification 3.0.3 allow 37 hours for the ~~unit~~ plant to be in MODE 5 when a plant shutdown is required during MODE 1 operation. If the ~~unit~~ plant is in a lower MODE of operation when a shutdown is required, the time limit for reaching the next lower MODE applies. If a lower MODE is reached in less time than allowed, however, the total allowable time to reach MODE 5, or other applicable MODE, is not reduced. For example, if MODE 3 is reached in 2 hours, then the time allowed for reaching MODE 4 is the next ~~11~~ 29 hours, because the total time for reaching MODE 4 is not reduced from the allowable limit of ~~13~~ 31 hours. Therefore, if remedial measures are completed that would permit a return to MODE 1, a penalty is not incurred by having to reach a lower MODE of operation in less than the total time allowed.

In MODES 1, 2, 3, and 4, LCO 3.0.3 provides actions for Conditions not covered in other Specifications. The requirements of LCO 3.0.3 do not apply in MODES 5 and 6 because the ~~unit~~ plant is already in the most restrictive Condition required by LCO 3.0.3.

The requirements of LCO 3.0.3 do not apply in other specified conditions of the Applicability (unless in MODE 1, 2, 3, or 4) because the ACTIONS of individual Specifications sufficiently define the remedial measures to be taken. Exceptions to LCO 3.0.3 are provided in instances where requiring a ~~unit~~ plant shutdown, in accordance with LCO 3.0.3, would not provide appropriate remedial measures for the associated condition of the ~~unit~~ plant. An example of this is in LCO 3.7.~~18~~ 14, "~~Fuel Storage~~ Spent Fuel Pool Water Level." LCO 3.7.~~18~~ 14 has an Applicability of "During movement of irradiated fuel

(continued)

BASES

LCO 3.0.3 (continued)

assemblies in the ~~fuel storage pool~~ Spent fuel pool..." Therefore, this LCO can be applicable in any or all MODES. If the LCO and the Required Actions of LCO 3.7.~~10~~ 14 are not met while in MODE 1, 2, or 3, there is no safety benefit to be gained by placing the ~~unit~~ plant in a shutdown condition. The Required Action of LCO 3.7.~~10~~ 14 of "Suspend movement of irradiated fuel assemblies in fuel storage pool" is the appropriate Required Action to complete in lieu of the actions of LCO 3.0.3. These exceptions are addressed in the individual Specifications.

~~The requirement to be in MODE 4 in 13 hours is plant specific and depends on the ability to cool the pressurizer and degas.~~

LCO 3.0.4

LCO 3.0.4 establishes limitations on changes in MODES or other specified conditions in the Applicability when an LCO is not met. It precludes placing the ~~unit~~ plant in a MODE or other specified condition stated in that Applicability (e.g., Applicability desired to be entered) when the following exist:

a. ~~Unit~~ Plant conditions are such that the requirements of the LCO would not be met in the Applicability desired to be entered; and

b. Continued noncompliance with the LCO requirements, if the Applicability were entered, would result in the ~~unit~~ plant being required to exit the Applicability desired to be entered to comply with the Required Actions.

Compliance with Required Actions that permit continued operation of the ~~unit~~ plant 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~~ plant 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 Required Actions. 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.

(continued)

BASES

LCO 3.0.4 (continued)

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a shutdown performed in response to the expected failure to comply with ACTIONS

The provisions of LCO 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 LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from any unit shutdown.

Exceptions to LCO 3.0.4 are stated in the individual Specifications. Exceptions may apply to all the ACTIONS or to a specific Required Action of a Specification.

13 <INSERT 1>

~~LCO 3.0.4 is only applicable when entering MODE 4 from MODE 5, MODE 3 from MODE 4, MODE 2 from MODE 3, or MODE 1 from MODE 2. Furthermore, LCO 3.0.4 is applicable when entering any other specified condition in the Applicability only while operating in MODES 1, 2, 3, or 4. The requirements of LCO 3.0.4 do not apply in MODES 5 and 6, or in other specified conditions of the Applicability (unless in MODES 1, 2, 3, or 4) because the ACTIONS of individual Specifications sufficiently define the remedial measures to be taken. [In some cases (e.g., ..) these ACTIONS provide a Note that states "While this LCO is not met, entry into a MODE or other specified condition in the Applicability is not permitted, unless required to comply with ACTIONS." This Note is a requirement explicitly precluding entry into a MODE or other specified condition of the Applicability.]~~

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<INSERT 2>

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 3.0.1. Therefore, changing MODES or other specified conditions while in an ACTIONS Condition, in compliance with LCO 3.0.4 or where an exception to LCO 3.0.4 is stated, is not a violation of SR 3.0.1 or SR 3.0.4 for those Surveillances that do not have to be performed due to the associated 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.

LCO 3.0.5

LCO 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with

(continued)

# CHAPTER 3.0

INSERT 1

The exceptions allow 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.

INSERT 2

LCO 3.0.4 is applicable when entering all MODES or other specified conditions, whether increasing in MODES (e.g., MODE 5 or MODE 4) or decreasing in MODES (e.g., MODE 4 to MODE 5). The requirement precluding entry into another MODE or other specified condition when the associated ACTIONS do not provide for continued operation for an unlimited period of time ensures that the plant maintains sufficient equipment OPERABILITY and redundancy as assumed in the accident analysis.

BASES

LCO 3.0.5 (continued)

10 required testing

ACTIONS. The sole purpose of this Specification is to provide an exception to LCO 3.0.2 (e.g., to not comply with the applicable Required Action(s)) to allow the performance of SRs to demonstrate:

a. The OPERABILITY of the equipment being returned to service; or

b. The OPERABILITY of other equipment.

10 required testing to demonstrate OPERABILITY

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 SRs. 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 SRs.

10 required testing

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 an SR 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 an SR on another channel in the same trip system.

LCO 3.0.6

LCO 3.0.6 establishes an exception to LCO 3.0.2 for support systems that have an LCO specified in the Technical Specifications (TS). This exception is provided because LCO 3.0.2 would require that the Conditions and Required 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 Required Actions. These Required Actions may include entering the

4 plant

(continued)

BASES

LCO 3.0.6 (continued)

supported system's Conditions and Required Actions or may specify other Required 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' Conditions and Required Actions unless directed to do so by the support system's Required Actions. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCOs' Conditions and Required Actions are eliminated by providing all the actions that are necessary to ensure the ~~unit~~ plant is maintained in a safe condition in the support system's Required Actions.

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

Specification 5.5.1~~5~~3, "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 Conditions and Required Actions. The SFDP implements the requirements of LCO 3.0.6.

Cross train checks to identify a loss of safety function for those support systems that support multiple and redundant safety systems are required. The cross train check verifies that the supported systems of the redundant OPERABLE support system are OPERABLE, thereby ensuring safety function is

(continued)

BASES

LCO 3.0.6 (continued)

14

retained. If this evaluation determines that a loss of safety function exists, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

LCO 3.0.7

4 | plant

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Special tests and operations are required at various times over the ~~unit~~'s life to demonstrate performance characteristics, to perform maintenance activities, and to perform special evaluations. Because TS normally preclude these tests and operations, special test exceptions (STEs) allow specified requirements to be changed or suspended under controlled conditions. STEs are included in applicable sections of the Specifications. Unless otherwise specified, all other TS requirements remain unchanged and in effect as applicable. This will ensure that all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed or suspended to perform the special test or operation will remain in effect.

The Applicability of an STE LCO represents a condition not necessarily in compliance with the normal requirements of the TS. Compliance with STE LCOs is optional.

A special test may be performed under either the provisions of the appropriate STE LCO or the other applicable TS requirements. If it is desired to perform the special test under the provisions of the STE LCO, the requirements of the STE LCO shall be followed. This includes the SRs specified in the STE LCO.

Some of the STE LCOs require that one or more of the LCOs for normal operation be met (i.e., meeting the STE LCO requires meeting the specified normal LCOs). The Applicability, ACTIONS, and SRs of the specified normal LCOs, however, are not required to be met in order to meet the STE LCO when it is in effect. This means that, upon failure to meet a specified normal LCO, the associated ACTIONS of the STE LCO apply, in lieu of the ACTIONS of the normal LCO. Exceptions to the above do exist. There are instances when the Applicability of the specified normal LCO must be met, where its ACTIONS must be taken, where certain of its Surveillances must be performed, or where all of

(continued)

BASES

LCO SR 3.0.7 (continued)

these requirements must be met concurrently with the requirements of the STE LCO.

Unless the SRs of the specified normal LCOs are suspended or changed by the special test, those SRs that are necessary to meet the specified normal LCOs must be met prior to performing the special test. During the conduct of the special test, those Surveillances need not be performed unless specified by the ACTIONS or SRs of the STE LCO.

ACTIONS for STE LCOs provide appropriate remedial measures upon failure to meet the STE LCO. Upon failure to meet these ACTIONS, suspend the performance of the special test and enter the ACTIONS for all LCOs that are then not met. Entry into LCO 3.0.3 may possibly be required, but this determination should not be made by considering only the failure to meet the ACTIONS of the STE LCO.

# B 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

## BASES

**SRs**

SR 3.0.1 through SR 3.0.4 establish the general requirements applicable to all Specifications and apply at all times, unless otherwise stated.

**SR 3.0.1**

SR 3.0.1 establishes the requirement that SRs must be met during the MODES or other specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual SRs. This Specification is to ensure that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified Frequency, in accordance with SR 3.0.2, constitutes a failure to meet an LCO.

Systems and components are assumed to be OPERABLE when the associated SRs have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when:

a. The systems or components are known to be inoperable, although still meeting the SRs; or

b. The requirements of the Surveillance(s) are known to be not met between required Surveillance performances.

4 Surveillances do not have to be performed when the ~~unit~~ plant is in a MODE or other specified condition for which the requirements of the associated LCO are not applicable, unless otherwise specified. The SRs associated with a

2 special test exception (STE) are only applicable when the STE is used as an allowable exception to the requirements of a Specification.

7 <INSERT>

Surveillances, including Surveillances invoked by Required Actions, do not have to be performed on inoperable equipment because the ACTIONS define the remedial measures that apply. Surveillances have to be met and performed in accordance with SR 3.0.2, prior to returning equipment to OPERABLE status.

(continued)

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INSERT

Unplanned events may satisfy the requirements (including applicable acceptance criteria) for a given SR. In this case, the unplanned event may be credited as fulfilling the performance of the SR. This allowance includes those SRs whose performance is normally precluded in a given MODE or other specified condition.

BASES

SR 3.0.1 (continued)

Upon completion of maintenance, appropriate post maintenance testing is required to declare equipment OPERABLE. This includes ensuring applicable Surveillances are not failed and their most recent performance is in accordance with SR 3.0.2. Post maintenance testing may not be possible in the current MODE or other specified conditions in the Applicability due to the necessary ~~unit~~ plant parameters not having been established. In these situations, the equipment may be considered OPERABLE provided testing has been satisfactorily completed to the extent possible and the equipment is not otherwise believed to be incapable of performing its function. This will allow operation to proceed to a MODE or other specified condition where other necessary post maintenance tests can be completed.

~~Some~~ An examples of this process ~~are~~ is:

~~a. Auxiliary feedwater (AFW) pump turbine maintenance during refueling that requires testing at steam pressures > 800 psi. However, if other appropriate testing is satisfactorily completed, the AFW System can be considered OPERABLE. This allows startup and other necessary testing to proceed until the plant reaches the steam pressure required to perform the testing.~~

~~b.~~ a. High pressure safety injection (HPSI) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with HPSI considered OPERABLE. This allows operation to reach the specified pressure to complete the necessary post maintenance testing.

SR 3.0.2

SR 3.0.2 establishes the requirements for meeting the specified Frequency for Surveillances and any Required Action with a Completion Time that requires the periodic performance of the Required Action on a "once per..." interval.

SR 3.0.2 permits a 25% extension of the interval specified in the Frequency. This extension facilitates Surveillance scheduling and considers plant operating conditions that may

(continued)

BASES

SR 3.0.2 (continued)

not be suitable for conducting the Surveillance (e.g., transient conditions or other ongoing Surveillance or maintenance activities).

The 25% extension does not significantly degrade the reliability that results from performing the Surveillance at its specified Frequency. This is based on the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the SRs. The exceptions to SR 3.0.2 are those Surveillances for which the 25% extension of the interval specified in the Frequency does not apply. These exceptions are stated in the individual Specifications. An example of where SR 3.0.2 does not apply is a Surveillance with a Frequency of "in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions." The requirements of regulations take precedence over the TS. The TS cannot in and of themselves extend a test interval specified in the regulations. Therefore, there is a Note in the Frequency stating, "SR 3.0.2 is not applicable."

8

the Containment Leak Rate Testing Program.

As stated in SR 3.0.2, the 25% extension also does not apply to the initial portion of a periodic Completion Time that requires performance on a "once per..." basis. The 25% extension applies to each performance after the initial performance. The initial performance of the Required Action, whether it is a particular Surveillance or some other remedial action, is considered a single action with a single Completion Time. One reason for not allowing the 25% extension to this Completion Time is that such an action usually verifies that no loss of function has occurred by checking the status of redundant or diverse components or accomplishes the function of the inoperable equipment in an alternative manner.

The provisions of SR 3.0.2 are not intended to be used repeatedly merely as an operational convenience to extend Surveillance intervals (other than those consistent with refueling intervals) or periodic Completion Time intervals beyond those specified.

SR 3.0.3

SR 3.0.3 establishes the flexibility to defer declaring affected equipment inoperable or an affected variable outside the specified limits when a Surveillance has not

(continued)

BASES

SR 3.0.3 (continued)

been completed within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is less, applies from the point in time that it is discovered that the Surveillance has not been performed in accordance with SR 3.0.2, and not at the time that the specified Frequency was not met.

This delay period provides an adequate time to complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before complying with Required Actions or other remedial measures that might preclude completion of the Surveillance.

The basis for this delay period includes consideration of ~~unit~~ plant conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements.

When a Surveillance with a Frequency based not on time intervals, but upon specified ~~unit~~ plant conditions or operational situations, is discovered not to have been performed when specified, SR 3.0.3 allows the full delay period of 24 hours to perform the Surveillance.

SR 3.0.3 also provides a time limit for completion of Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals.

If a Surveillance is not completed within the allowed delay period, then the equipment is considered inoperable or the variable is considered outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay

(continued)

BASES

SR 3.0.3 (continued)

period, then the equipment is inoperable, or the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon the failure of the Surveillance.

Completion of the Surveillance within the delay period allowed by this Specification, or within the Completion Time of the ACTIONS, restores compliance with SR 3.0.1.

SR 3.0.4

SR 3.0.4 establishes the requirement that all applicable 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. plant

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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.

However, in certain circumstances, failing to meet an SR will not result in SR 3.0.4 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 SR 3.0.1, which states that surveillances do not have to be performed on inoperable equipment. When equipment is inoperable, SR 3.0.4 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 an SR 3.0.4 restriction to changing MODES or other specified conditions of the Applicability. However, since the LCO is not met in this instance, LCO 3.0.4 will govern any restrictions that may (or may not) apply to MODE or other specified condition changes.

The provisions of SR 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability

(continued)

BASES

SR 3.0.4 (continued)

that are required to comply with ACTIONS. In addition, the provisions of LCO 3.0.4 shall not prevent changes in MODES or other specified conditions in the Applicability that result from ~~any unit shutdown~~.

a shutdown performed in response to the expected failure to comply with ACTIONS

The precise requirements 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 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.

INSERT

~~SR 3.0.4 is only applicable when entering MODE 4 from MODE 5, MODE 3 from MODE 4, Mode 2 from MODE 3, or MODE 1 from MODE 2. Furthermore, SR 3.0.4 is applicable when entering any other specified condition in the Applicability only while operating in MODES 1, 2, 3, or 4. The requirements of SR 3.0.4 do not apply in MODES 5 and 6, or in other specified conditions of the Applicability (unless in MODES 1, 2, 3, or 4) because the ACTIONS of individual Specifications sufficiently define the remedial measures to be taken.~~

6

INSERT

SR 3.0.4 is applicable when entering all MODES or other specified conditions, whether increasing in MODES (e.g., MODE 5 to MODE 4) or decreasing in MODES (e.g., MODE 4 to MODE 5). The requirement precluding entry into another MODE or other specified condition when the associated ACTIONS do not provide for continued operation for an unlimited period of time ensures that the plant maintains sufficient equipment OPERABILITY and redundancy as assumed in the accident analysis.

# ATTACHMENT 6

# PALISADES NUCLEAR PLANT

# CHAPTER 3.0, LCO & SR APPLICABILITY

# JUSTIFICATION FOR DEVIATIONS FROM NUREG-1432

**Change** **Discussion**

NOTE: The first five justifications for these changes from NUREG-1432 were generically used throughout the individual LCO section markups. Not all generic justifications are used in each section.

1. The brackets have been removed and the proper plant specific information or value has been provided.

2. Editorial change for clarity or for consistency with the Improved Technical Specifications (ITS) Writer's Guide.

3. The requirement/statement has been deleted since it is not applicable to this facility. The following requirements have been renumbered, where applicable, to reflect this deletion.

4. Changes have been made (additions, deletions, and/or changes to the NUREG) to reflect the facility specific nomenclature, number, reference, system description, or analysis description.

5. This change reflects the current licensing basis/technical specifications.

6. Rev. 1 to NUREG-1432 contains the option of limiting the Applicability of LCO and SR 3.0.4 to entry into a MODE or other specified condition in the Applicability in MODES 1, 2, 3 and 4. In addition, the Rev. 1 version of LCO and SR 3.0.4 would not prevent entry into MODES or other specified conditions in the Applicability that are part of any shutdown of the unit. However, to adopt the Rev. 1 version of LCO and SR 3.0.4, an evaluation must be performed on the existing technical specifications to determine where specific restrictions on MODE changes or Required Actions should be included in individual LCOs to justify this change. For the Palisades plant there appears to be little benefit to adopt the Rev. 1 definition. In addition, since the process for determining where specific restrictions on MODE changes should occur has not been well defined, Palisades chooses not to adopt the allowances of the Rev. 1 LCO and SR 3.0.4.

**Change** **Discussion**

6. (continued)

When Rev. 1 to NUREG-1432 was written, the wording in LCO and SR 3.0.4 was written to reflect the Rev. 1 allowances discussed above without using brackets to indicate acceptable alternative wording if the Rev. 1 approach to implementing LCO and SR 3.0.4 was not taken. To correct this, the industry owner's groups wrote TSTF-103 to add brackets to the areas which discussed LCO and SR 3.0.4 being only applicable in MODES 1, 2, 3 and 4, and provided alternative wording where the Rev. 1 version discussed "any unit shutdown." The proposed wording in the Palisades ITS for LCO and SR 3.0.4 is modeled after the changes made in TSTF-103 along with some proposed changes to TSTF-103 to correct some consistency errors.

7. The Bases of SR 3.0.1 has been modified to add the following statement:

> "Unplanned events may satisfy the requirements (including applicable acceptance criteria) for a given SR. In this case, the unplanned event may be credited as fulfilling the performance of the SR. This allowance includes those SRs whose performance is normally precluded in a given MODE or other specified condition."

This change was made as a result of a proposed change by the industry owner's groups as discussed in Technical Specification Task Force (TSTF) 8, Rev. 2. The proposed change acknowledges that credit may be taken for an unplanned event which demonstrates the operability of the system equivalent to the performance of the associated surveillance requirement.

8. The proposed Bases for 3.0.2 is modified to reflect a change by the industry owner's groups as discussed in Technical Specification Task Force (TSTF) change number 52 which was generated to implement Option B of Appendix J. The existing NUREG-1431, Rev. 1 Bases for SR 3.0.2 stated at the end of the paragraph "The 25% extension...":

> "An example of where SR 3.0.2 does not apply is a Surveillance with a Frequency of "in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions." The requirements of regulations take precedence over the TS. The TS cannot in and of themselves extend a test interval specified in the regulations. Therefore, there is a Note in the Frequency stating, "SR 3.0.2 is not applicable."

**Change** **Discussion**

8. (continued)

TSTF-52 changes this sentence to state:

> An example of where SR 3.0.2 does not apply is the Containment Leak Rate Testing Program.

Surveillance Requirement Frequencies in the proposed ITS will no longer reference 10 CFR 50, Appendix J but instead will reference the Containment Leak Rate Testing Program which is contained in the Administrative Controls Section. Therefore, the Bases for SR 3.0.2 is revised to reflect this change.

9. In the proposed ITS LCO 3.0.3b, NUREG 1432 lists a time to reach MODE 4 of 13 hours. This item is "bracketed" in NUREG-1432 since some plant designs require a different number. In the proposed Palisades ITS, this time is increased to 31 hours. Increasing the time allowed to reach MODE 4 allows for more complete degassing of the Primary Coolant System (PCS). The PCS is degassed by venting the pressurizer gas space to the Vacuum Degasifier. The efficiency of this method is maximized by maintaining PCS temperature as high as practical, the subcooling as low as practical, and operating all pressurizer heaters. This results in a net increase in the rate of hydrogen removal from the PCS since increased spray flow and lower PCS pressure offset the lower degas flow rate through the vent path. While the total time to reach MODE 4 is increased, the time to reach MODE 5 is the same in the proposed ITS as specified in NUREG-1432.

10. TSTF-165 is incorporated into the Bases for LCO 3.0.5. The Bases for LCO 3.0.5 is changed to use the word "testing" instead of the acronym "SR." LCO 3.0.5 states, "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 LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY." While LCO 3.0.5 refers to "testing", the Bases for LCO 3.0.5 inconsistently use the term "SRs" instead of "testing." This change corrects this inconsistency. This change addresses testing that is required to demonstrate operability that is not a surveillance. For example, post maintenance testing required to demonstrate operability may not be a Surveillance. This change does not change the intent of the LCO and makes the Bases consistent with the LCO.

| Change | Discussion |
|---|---|
| 11. | TSTF-166 is incorporated to revise LCO 3.0.6 to explicitly require an evaluation per the Safety Function Determination Program, and delete the statement "additional . . . limitations may be required" from LCO 3.0.6. There is an inconsistency between LCO 3.0.6, the Safety Function Determination Program (SFDP), and the LCO 3.0.6 Bases. As currently written, LCO 3.0.6 does not explicitly require an evaluation in accordance with the SFDP, rather it states that additional evaluations may be required. Both the SFDP and the LCO 3.0.6 Bases state that upon entry into LCO 3.0.6, an evaluation shall be made to determine if a loss of safety function exists. In addition, because LCO 3.0.6 states that the evaluation be done in accordance with the SFDP and the SFDP states that other appropriate actions may be taken, there is no need for the statement "additional . . . limitations may be required" in LCO 3.0.6. |
| 12. | TSTF-122 is incorporated to revise the LCO 3.0.2 Bases to remove possible confusion. This change revises the following two sentences, "Alternatives that would not result in redundant equipment being inoperable should be used instead. Doing so limits the time other conditions exist which result in LCO 3.0.3 being entered." to read, "Additionally, if intentional entry into ACTIONS would result in redundant equipment being inoperable, alternatives should be used instead. Doing so limits the time conditions exist which may result in LCO 3.0.3 being entered." The original wording is confusing in that it begins to discuss inoperability of redundant equipment without introducing the topic. This topic of inoperable redundant equipment seems to be more appropriate for the Bases of LCO 3.0.3, but an appropriate discussion is already provided there. The proposed wording retains the intent while presenting the material in the appropriate context of LCO 3.0.2. |
| 13. | TSTF-104 is incorporated to relocate a discussion of exceptions from LCO 3.0.4 to the Bases. This change removes the additional discussion provided in LCO 3.0.4 with respect to the use of exceptions and provides the necessary discussion in the Bases. This change provides consistency with LCO 3.0.3 by moving the discussion of exceptions from the LCO to the Bases. In addition, this change reduces the potential for confusion by revising the discussion to eliminate the repeated use of the phrase "Modes or other specified conditions in the Applicability" to increase clarity. |
| 14. | TSTF-71, Rev. 1, is not incorporated into the Bases of LCO 3.0.6. This change does not affect the Specification but would only add an example of SFDP application to the LCO 3.0.6 Bases. This brief example is not added in the Bases for LCO 3.0.6 since it considered to be unnecessary, insufficient, and potentially the cause of further confusion. Although the application of LCO 3.0.6 is the cause of a great deal of confusion, the application can be better explained in the implementation documents using other more detailed examples. This change to the Bases does not alter the technical content of LCO 3.0.6. |