

February 29, 2016

TSTF-16-03
PROJ0753

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

SUBJECT: TSTF Comments on Draft Model Safety Evaluation of Traveler TSTF-529, Revision 3, "Clarify Use and Application Rules," and Transmittal of TSTF-529, Revision 4

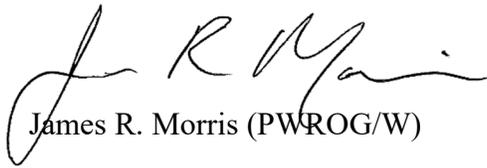
REFERENCE: Letter from Michelle Honcharik (NRC) to the TSTF, "Draft Model Safety Evaluation of Technical Specifications Task Force Traveler TSTF-529, Revision 3, "Clarify Use and Application Rules," dated January 29, 2016 (ADAMS Accession No. ML15345A444).

On September 14, 2015, the TSTF submitted traveler TSTF-529, Revision 3, "Clarify Use and Application Rules," to the Nuclear Regulatory Commission (NRC) for review (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15259A337). In the referenced letter, the NRC provided for comment the draft model Safety Evaluation of TSTF-529.

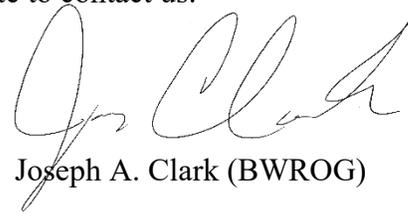
Attachment 1 contains a summary table and mark-up providing the TSTF's comments on the draft model Safety Evaluation (SE).

The NRC has recently revised the approval process for TSTF travelers and will no longer publish a Notice of Availability in the Federal Register. This necessitates a revision to the model application contained in TSTF-529. Revision 4 of TSTF-529 is included in Attachment 2. The revisions to the model application are indicated by change bars in the right margin.

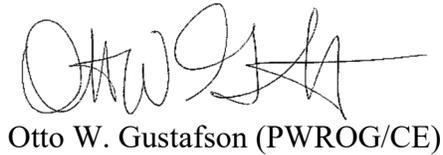
Should you have any questions, please do not hesitate to contact us.



James R. Morris (PWROG/W)



Joseph A. Clark (BWROG)



Otto W. Gustafson (PWROG/CE)



Michael K. Leisure (PWROG/B&W)

Attachment 1 - TSTF Comments on the Model Safety Evaluation
Attachment 2 - TSTF-529, Revision 4

cc: Michelle Honcharik, Licensing Processes Branch, NRC
Robert Elliott, Technical Specifications Branch, NRC

**Attachment 1
 TSTF Comments on the Model Safety Evaluation**

Summary Table of TSTF Comments

Section	Comment
3.1.1	In Section 3.1.1, the SE states the only mention of the term "time of discovery" is in STS Section 1.3. That statement is taken from the traveler justification and is not entirely correct. It is correct when referring to Completion Times but SR 3.0.3 uses the term regarding a delay time ("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 greater.") This usage is correct and is not proposed to be changed. The SE and the traveler justification Section 4.1 are revised to clarify that "time of discovery" related to Completion Times is being changed.
3.1.3	The first sentence of the first paragraph references Section 2.2.2. The correct reference is 2.2.5.
3.1.3	For consistency with LIC-600, Enclosure 3, recommend adding a "Conclusion" section header before the last paragraph.
A.2.2	Third paragraph, last sentence, correct "lead" to "led"
A.3.1, A.3.2, A.3.3, A.3.4, A.5, A.6.1	To be consistent with the other sections in the SE, recommend adding a conclusion that the NRC staff finds the change acceptable.
A.3.3	In Section A.3.3, the quote of the proposed LCO 3.0.4 Bases states "specified in condition" and it should state "specified condition." This is corrected in the SE and in the traveler.
A.4	The first paragraph in Section A.4 and the first paragraph after the quote are duplicative. Recommend deleting the paragraph after the quote and moving the second paragraph after the quote to the beginning of the section for consistency.
A.5	In the second paragraph, the statement of the intent of "operational convenience" isn't consistent with the statement in the third paragraph or the TS Bases. A change is recommended to make the discussion consistent.
A.6.2	In the first paragraph, it is suggested to replace "substitute...for" with "substitute...with" for clarity.

Draft Model Safety Evaluation Mark-Up

DRAFT SAFETY EVALUATION OF TECHNICAL SPECIFICATIONS TASK FORCE
TRAVELER TSTF-529, REVISION 3, "CLARIFY USE AND APPLICATION RULES," USING
THE CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS
(TAC NOS. MF1406 AND MF1407)

1.0 INTRODUCTION

By letter dated September 14, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15259A337), the Technical Specifications Task Force (TSTF) submitted to the U.S. Nuclear Regulatory Commission (NRC) for review and approval Traveler TSTF-529, Revision 3, "Clarify Use and Application Rules." Traveler TSTF-529 proposes changes to NUREG-1430, "Standard Technical Specifications [(STS)] Babcock and Wilcox Plants," NUREG-1431, "Standard Technical Specifications Westinghouse Plants," NUREG-1432, "Standard Technical Specifications Combustion Engineering Plants," NUREG-1433, "Standard Technical Specifications General Electric Plants BWR/4," and NUREG-1434, "Standard Technical Specifications General Electric Plants, BWR/6" (ADAMS Accession Nos. ML12100A177, ML12100A222, ML12102A165, ML12104A192 and ML12104A195, respectively).

The proposed changes would revise STS Sections 1.3, "Completion Times," and 3.0, "LCO [limiting condition for operation] Applicability" and "SR [surveillance requirement] Applicability," and the STS Bases for Section 3.0, "LCO Applicability" and "SR Applicability." The proposed changes would also clarify and expand the use and application of the STS usage rules. The STS change will be made available to licensees through the consolidated line item improvement process.

2.0 REGULATORY EVALUATION

2.1 Description of Subject Standard Technical Specifications Sections

Limiting conditions for operation (LCOs) specify minimum requirements for ensuring safe operation of the unit. The actions associated with an LCO state conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated condition are required action(s) and completion time(s).

STS Section 1.3, "Completion Times," currently describes completion times as follow:

The completion time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO. Required Actions must be completed prior to the expiration of the specified Completion Time.

ENCLOSURE

An ACTIONS Condition remains in effect and the Required Actions apply until the Condition no longer exists or the unit is not within the LCO Applicability.

If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time. When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the time of discovery of the situation that required entry into the Condition.

Once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition, unless specifically stated. The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition.

LCO 3.0.1 through LCO 3.0.9 establish the general requirements applicable to all specifications and apply at all times, unless otherwise stated. Similarly, SR 3.0.1 through SR 3.0.4 establish the general requirements for surveillances that are applicable to all specifications and apply at all times, unless otherwise stated.

2.2 Description of STS Changes

The proposed change will revise the STS Sections 1.3, "Completion Times," and 3.0, "LCO Applicability" and "SR Applicability," and the STS Bases for Section 3.0, "LCO Applicability" and "SR Applicability." The proposed changes are described in more detail below.

2.2.1 Proposed Changes to "Time of Discovery"

STS Section 1.3, "Description," currently states, in part, the following (with emphasis added on "time of"):

The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the *time of* discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO.

STS Section 1.3, "Description," also currently states, in part, the following (with emphasis added on "time of"):

If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time. When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the *time of* discovery of the situation that required entry into the Condition.

The proposed STS Section 1.3 would delete “time of” from the previous statements and read as follow:

The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO.

[...]

If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time. When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the discovery of the situation that required entry into the Condition.

The adequacy of this change is discussed in Section 3.1.1.1.

2.2.2 Proposed Addition to “Time of Discovery”

The TSTF proposed to add the following paragraph to Section 1.3 of the STS under Description:

Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered. The "otherwise specified" exceptions are varied, such as a Required Action Note or Surveillance Requirement Note that provides an alternative time to perform specific tasks, such as testing, without starting the Completion Time. While utilizing the Note, should a Condition be applicable for any reason not addressed by the Note, the Completion Time begins. Should the time allowance in the Note be exceeded, the Completion Time begins at that point. The exceptions may also be incorporated into the Completion Time. For example, LCO 3.8.1, "AC Sources - Operating," Required

Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator, inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case the Completion Time does not begin until the conditions in the Completion Time are satisfied.

The proposed change augments the NRC staff's expectation that a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and a Condition is entered.

The adequacy of this change is discussed in Section 3.1.1.2.

2.2.3 Proposed Addition of "Unless Otherwise Specified"

STS Section 1.3, "Description," currently states the following (with emphasis added on "unless otherwise specified"):

The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO.

The TSTF proposed to add the following sentence right after the above statement to STS Section 1.3, which contains the phrase "unless otherwise specified:"

Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered.

In addition, the TSTF proposed adding the phrase "unless otherwise specified" to the following two statements:

When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the discovery of the situation that required entry into the Condition, unless otherwise specified.

and

The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition, unless otherwise specified.

The adequacy of this change is discussed in Section 3.1.1.3.

2.2.4 Proposed Changes to LCO 3.0.4

STS LCO 3.0.4 currently states:

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

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual Specifications, or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

The TSTF proposed to clarify the b. statement above by placing the statement regarding exceptions in parenthesis and replacing the ending comma with a semicolon. The proposed STS LCO 3.0.4 would state the following:

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

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

The adequacy of this change is discussed in Section 3.1.2.

2.2.5 Proposed Changes to STS SR 3.0.3
STS SR 3.0.3 currently states the following:

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 greater. This delay period is permitted to allow performance of the Surveillance. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the 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.

The TSTF-proposed STS LCO SR 3.0.3 states the following (the additional sentence is underlined):

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 greater. This delay period is permitted to allow performance of the Surveillance. The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the 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.

The adequacy of this change is discussed in Section 3.1.3.

2.3 Regulatory Requirements, Licensing Information, Guidance Documents

Per Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36(b), each license authorizing operation of a utilization facility will include technical specifications. The technical specifications will be derived from the analyses and evaluations included in the safety analysis report, and amendments thereto, submitted pursuant to 10 CFR 50.34 (describing the technical information to be included in applications for an operating license). The Commission may include such additional technical specifications as the Commission finds appropriate.

The NRC staff's guidance for review of the technical specifications is in Chapter 16, "Technical Specifications," of NUREG-0800, "Standard Review Plan [(SRP)]," Revision 3, dated March 2010 (ADAMS Accession No. ML100351425). As described therein, as part of the regulatory standardization effort, the NRC staff has prepared STS (NUREG-1430 to NUREG-1434) for each of the light-water reactor nuclear steam supply systems (NSSSs) and associated balance-of-plant equipment systems. Accordingly, the NRC staff's review includes consideration of whether the proposed technical specifications are consistent with the applicable reference technical specification (i.e., the current STS), as modified by NRC-approved TSTF Travelers such as TSTF-529, Revision 3. Special attention is given to technical specification provisions that depart from the reference technical specifications and NRC-approved TSTF Travelers to determine whether proposed differences are justified by uniqueness in plant design or other considerations so that 10 CFR 50.36 is met.

3.0 TECHNICAL EVALUATION

During the review of TSTF-529, Revision 3, the NRC staff considered generally the guidance on acceptance criteria of the SRP sections described in Section 2.3 of this safety evaluation, and, in particular, the acceptance criteria in Chapter 16, "Technical Specifications," of NUREG-0800, Revision 3. Additionally, the NRC staff evaluated the proposed changes to the STS against what is required to be in the technical specifications under 10 CFR 50.36(c).

3.1 Requested Changes

3.1.1 Proposed Changes to Section 1.3, "Completion Times"

3.1.1.1 Proposed Changes to "Time of Discovery"

The only mention of the term "time of discovery" *in relation to completion times* is in STS Section 1.3 (quoted in Section 2.2.1 of this SE). Throughout the STS, the term "discovery" is used to describe the point in time that it is recognized that the requirements of an LCO are not met. For example, STS LCO 3.0.2 states in part, "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." In addition, the Bases to LCO 3.0.2, state, in part, "LCO 3.0.2 establishes that upon discovery of a failure to meet an LCO, the associated ACTIONS shall be met."

The proposed STS Section 1.3 would delete "time of" from the previous statements. The NRC staff finds the proposed change acceptable because it makes Section 1.3 consistent with the language used throughout the rest of the STS. This provides clarity to the term "discovery," and therefore provides a clear and objective application of the technical specification required actions and associated completion times. The change is editorial since it does not change the requirements currently in the technical specifications.

3.1.1.2 Proposed Addition to "Time of Discovery"

The TSTF also proposed to add the following paragraph to Section 1.3 of the STS under Description:

Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered. The "otherwise specified" exceptions are varied, such as a Required Action Note or Surveillance Requirement Note that provides an alternative time to perform specific tasks, such as testing, without starting the Completion Time. While utilizing the Note, should a Condition be applicable for any reason not addressed by the Note, the Completion Time begins. Should the time allowance in the Note be exceeded, the Completion Time begins at that point. The exceptions may also be incorporated into the Completion Time. For example, LCO 3.8.1, "AC Sources - Operating," Required Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator, inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case the Completion Time does not begin until the conditions in the Completion Time are satisfied.

The operating shift crew is responsible for overall control of facility operation. As part of that responsibility, the operating shift crew must be aware of the status of the plant and condition of structures, systems and components (SSCs). This includes status of degraded or nonconforming conditions that may affect plant operation. Therefore, the proposed change simply augments the NRC staff's expectation that a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and a Condition is entered. The phrase "and an ACTIONS Condition is entered" in the above proposed insertion, is necessary to accommodate circumstances in which LCO 3.0.6 allows an LCO to not be met without entry into the Conditions. In those circumstances, a Completion Time does not begin. In addition, an example is added to the proposed insertion in order to explain the concept presented.

The NRC staff finds the proposed change acceptable since it clarifies senior reactor operators' responsibilities and the allowances of LCO 3.0.6, and therefore, provides a clear and objective application of the STS Required Actions and associated Completion Times.

3.1.1.3 Proposed Addition of "Unless Otherwise Specified"

The phrase, "unless otherwise specified," in STS Section 1.3, refers to those instances in which technical specification LCOs define the start of the Completion Time as different from "discovery." For example, STS, Revision 4, Specification 3.8.1, "AC Sources - Operating," Required Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case, the Completion Time does not begin until the conditions in the Completion Time are satisfied.

As discussed in Section 2.2.3 of this SE, the TSTF proposed to add the following sentence to STS Section 1.3, which contains the phrase "unless otherwise specified:"

Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered.

In addition, the TSTF proposed adding the phrase "unless otherwise specified" to the following two statements:

When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the discovery of the situation that required entry into the Condition, unless otherwise specified.

and

The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition, unless otherwise specified.

The addition of the phrase "unless otherwise specified" acknowledges that there are instances, as indicated in the individual technical specifications, when the completion time does not start at discovery. These exceptions are varied, such as when a Required Action Note or Surveillance Requirement Note provides an alternative time to perform specific tasks, such as testing, without starting the Completion Time. While utilizing the Note, should a Condition be applicable for any reason not addressed by the Note, the Completion Time begins. Should the time allowance in the Note be exceeded, the Completion Time begins at that point.

The NRC staff finds the proposed change acceptable since it clarifies that there are exceptions and therefore provides a clear and objective application of the STS Required Actions and associated Completion Times.

3.1.2 Proposed Changes to LCO 3.0.4

As stated in Section 2.2.4 of this SE, the current STS LCO 3.0.4 contains three options, (a, b, and c). Paragraph a ends with a semicolon and paragraph b ends with ", or".

The LCO 3.0.4.b, "After performance of a risk assessment ... stated in the individual Specifications, or," could lead to operator misinterpretation. Operators could misapply this statement by believing the "or" applies to the phrase regarding exceptions and that LCO 3.0.4.a, b, and c apply concurrently.

The TSTF is proposing to clarify this sentence by placing the statement regarding exceptions in parenthesis and replacing the ending comma with a semicolon. The proposed STS LCO 3.0.4 would state the following: "After performance of a risk assessment ... if appropriate (exceptions to this specification are stated in the individual specifications); or."

The NRC staff finds that the change is editorial since it does not change the requirements currently in the technical specifications. The NRC staff finds the proposed change acceptable since it removes potential for misapplication of LCO 3.0.4 allowances, and therefore, provides a clear and objective application of the STS Required Actions.

3.1.3 Proposed Changes to SR 3.0.3

The NRC has typically interpreted SR 3.0.3, which is quoted in Section 2.2.52 of this SE, as inapplicable to SRs that have never been previously performed. This is because the allowance provided by SR 3.0.3 is based on the fact that the SR was satisfactorily met in the past and the most probable result of performing the SR is the verification of conformance with the requirements. Therefore, there is reasonable expectation the SR will be met when performed.

However, the NRC staff recognizes that there are instances in which an SR may not have been performed in the past, but there is still a reasonable expectation the SR will be met when performed. For example, an SR requires testing of a relay contact. A licensee finds the relay contact has never been tested as required in accordance with a particular SR. That licensee, however, finds there is a reasonable expectation the SR will be met when performed because the subject relay contact has been tested by another SR or historical operation of the subject relay contact has been successful.

The delay period allowed by STS SR 3.0.3 offers adequate time to complete SRs that have been missed. In addition, this delay period permits the completion of an SR before complying with required actions or other remedial measures that might preclude completion of the SR. The NRC staff finds the application of the delay period provided by STS SR 3.0.3 acceptable for use on SRs that have been never been performed so as long as licensees can provide an adequate determination of reasonable expectation the SR will be met when performed.

The TSTF-proposed STS LCO SR 3.0.3 states the following (the new sentence reflecting the inclusion of SRs that have never been performed is underlined):

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 greater. This delay period is permitted to allow performance of the Surveillance. The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the 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.

When making a determination of reasonable expectation the SR will be met when performed, licensees should consider many factors. These factors include, but are not limited to, things such as the period of time since the SR was last performed, or whether the SR, or a portion thereof, has ever been performed, and many other indications, tests, or activities that might support the expectation that the SR will be met when performed. It is not sufficient to infer the behavior of the associated equipment from the performance of similar equipment. The rigor of determining whether there is a reasonable expectation an SR will be met when performed should increase based on the length of time since the last performance of the SR. If the SR has been performed recently, a review of the SR history and equipment performance may be sufficient to support a reasonable expectation that the SR will be met when performed. For SRs that have not been performed for a long period or that have never been performed, a rigorous evaluation based on objective evidence should provide a high degree of confidence that the equipment is capable of performing its specified safety function(s). The evaluation should be documented in sufficient detail to allow a knowledgeable individual to understand the basis for the determination.

The proposed change, which expands the scope of SR 3.0.3 to SRs that have never been performed, is acceptable because it requires there to be an adequate determination of a reasonable expectation the SR will be met when performed. In addition, the proposed change augments plant safety since it could prevent unnecessary shutdowns by providing adequate time to complete SRs that have never been performed but are likely to achieve satisfactory results.

4.0 CONCLUSION

As described in Section 2.3 of this SE, the regulations contained in 10 CFR 50.36 require that technical specifications include items in specified categories, including LCOs and SRs. The proposed changes modify the LCOs, conditions, required actions, completion times, and SRs applicable to their usage and application. The technical specifications continue to specify the LCOs and specify the remedial measures to be taken if one of these requirements is not satisfied. The technical specifications continue to specify the appropriate SRs to ensure the necessary quality of affected structures, systems and components are maintained. Therefore, the NRC staff finds that the changes to the LCOs and SRs proposed in TSTF-529 meet 10 CFR 50.36(c)(2) and 50.36(c)(3), respectively.

Attachment: Basis for Accepting the Proposed Changes to the Standard Technical Specifications Bases

Principal Contributor: C. Tilton

Date:

ATTACHMENT

BASIS FOR ACCEPTING THE PROPOSED CHANGES TO THE STANDARD TECHNICAL SPECIFICATIONS BASES

This attachment documents the U.S. Nuclear Regulatory Commission (NRC) staff's basis for accepting the proposed changes to the Standard Technical Specifications (STS) Bases provided in Technical Specifications Task Force (TSTF) STS Change Traveler TSTF-529, Revision 3, "Clarify Use and Application Rules" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15259A337), dated September 14, 2015.

In addition to the changes described in the safety evaluation of TSTF-529, Revision 3, changes to the STS Bases for the following sections are proposed: limiting condition for operation (LCO) 3.0.2, LCO 3.0.3, LCO 3.0.4, LCO 3.0.5, surveillance requirement (SR) 3.0.2 and SR 3.0.3. The proposed changes and their acceptability are discussed in the sections below.

A.1 Proposed Changes to the Bases for LCO 3.0.2

As discussed in Section 3.1.1.3 of the TSTF-529, Revision 3, safety evaluation, the phrase "unless otherwise specified" was added to Section 1.3, "Completion Times," of the STS. In a complementary change, the TSTF proposed to revise the Bases for LCO 3.0.2 to eliminate a minor discrepancy between the technical specification (Section 1.3) and the Bases. Section 1.3 states that a completion time is referenced to the time of discovery of a situation that requires entering an actions condition unless otherwise specified. LCO 3.0.2 makes a similar statement but without the qualifier, "unless otherwise specified." Therefore, the LCO 3.0.2 Bases are adequately revised to add the phrase "unless otherwise specified" to the following statement:

The Completion Time of each Required Action for an ACTIONS Condition is applicable from the point in time that an ACTIONS Condition is entered, unless otherwise specified.

These changes ensure consistency between existing STS sections, as discussed above and are therefore acceptable.

A.2 Proposed Changes to the Bases for LCO 3.0.3

A.2.1 "Reach" Changed to "Enter"

The TSTF proposed to revise STS Bases for LCO 3.0.3 to provide consistent terminology throughout the STS. STS Bases for LCO 3.0.3 uses the term "reaching" when describing a transition to a lower mode. The term "entering" is more accurate and is the commonly used term in the STS for mode transitions. In seven locations in the LCO 3.0.3 Bases, the term "reaching" a mode is replaced with the term "entering" a mode. The change is editorial in nature and clarifies what the NRC staff meant by the term "reaching." Therefore, the change is acceptable.

A.2.2 Addition of "LCO No Longer Applicable"

The TSTF proposed to correct STS Bases for LCO 3.0.3. Specifically, it proposed to add language to state that a unit shutdown may be terminated and LCO 3.0.3 exited if the LCO is no longer applicable.

STS Bases for LCO 3.0.3 currently state the following:

A unit 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, or
- 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.

STS LCO 3.0.2 currently states: "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." However, the list in the LCO 3.0.3 Bases does not acknowledge that a unit shutdown may be terminated and LCO 3.0.3 exited if the LCO is no longer applicable (i.e., the LCO that was not met which lead to entry into LCO 3.0.3).

The proposed change in TSTF-529, Revision 3, adds to the list a new paragraph b that states, "The LCO is no longer applicable," and the subsequent list items are renumbered.

The NRC staff finds this change acceptable since it adds clarity and consistency to the application of the STS.

A.3 Proposed Changes to the Bases for LCO 3.0.4

A.3.1 Addition of "Either"

The TSTF proposed a revision to STS Bases for LCO 3.0.4.a by inserting the word "either" in its introductory paragraph as follows: "in accordance with either LCO 3.0.4.a, LCO 3.0.4.b, or LCO 3.0.4.c." *The NRC staff finds this change acceptable because it ~~This change~~* clarifies the intent of the allowance provided by LCO 3.0.4 as discussed in Section 3.1.2 of the TSTF-529, Revision 3, safety evaluation.

A.3.2 Clarification of Intent of LCO 3.0.4.a

The TSTF also proposed the following change to the STS Bases for LCO 3.0.4.a:

LCO 3.0.4.a allows entry into a MODE or other specified condition in the Applicability with the LCO not met when the associated

ACTIONS to be entered following entry into the MODE or other specified condition in the Applicability will permit continued operation within the MODE or other specified condition for an unlimited period of time. Compliance with ACTIONS that permit continued operation of the unit for an unlimited period of time in a MODE or other specified condition provides an acceptable level of safety for continued operation. This is without regard to the status of the unit before or after the MODE change. Therefore, in such cases, entry into a MODE or other specified condition in the Applicability may be made and the Required Actions followed after entry into the Applicability.

The NRC staff finds this change ~~The above change is~~ acceptable because it is needed to provide clarification that required actions must be followed after entry into the modes and other specified conditions in the applicability if not performed prior to entry.

A.3.3 Example Added

The TSTF proposed to add the following example to STS Bases for LCO 3.0.4:

For example, LCO 3.0.4.a may be used when the Required Action to be entered states that an inoperable instrument channel must be placed in the trip condition within the Completion Time. Transition into a MODE or other specified ~~in~~ condition in the Applicability may be made in accordance with LCO 3.0.4 and the channel is subsequently placed in the tripped condition within the Completion Time, which begins when the Applicability is entered. If the instrument channel cannot be placed in the tripped condition and the subsequent default ACTION ("Required Action and associated Completion Time not met") allows the OPERABLE train to be placed in operation, use of LCO 3.0.4.a is acceptable because the subsequent ACTIONS to be entered following entry into the MODE include ACTIONS (place the OPERABLE train in operation) that permit safe plant operation for an unlimited period of time in the MODE or other specified condition to be entered.

The NRC staff finds this change ~~The example above is~~ acceptable because it clarifies the intent of LCO 3.0.4.

A.3.4 Removal of Misleading STS Reference

STS Bases for LCO 3.0.4.c currently state:

The risk assessments performed to justify the use of LCO 3.0.4.b usually only consider systems and components. For this reason, LCO 3.0.4.c is typically applied to Specifications which describe values and parameters (e.g., [Containment Air Temperature, Containment Pressure, MCPR, Moderator Temperature

Coefficient]), and may be applied to other Specifications based on NRC plant specific approval.

Although the list of specifications to which LCO 3.0.4.c is typically applied is in brackets (i.e., plant-specific), the parenthetical phrase is misleading. In the STS, LCO 3.0.4.c is only applied to one specification, "RCS Specific Activity." This specification is not listed in the Bases and the listed specifications in the STS do not allow application of LCO 3.0.4.c. For consistency within the STS, the TSTF proposed to replace the bracketed list of Specifications with "(e.g., RCS Specific Activity)." This removes information which is potentially misleading, providing greater clarity. Therefore, *NRC staff finds this the change is acceptable.*

A.4 Proposed Changes to the Bases for LCO 3.0.5

The TSTF proposed a revision to STS Bases for LCO 3.0.5 Bases to clarify that LCO 3.0.5 should not be used if there are other alternatives to demonstrate that an LCO is met and maintain compliance with Actions.

In addition, in a related change, an incorrect example in the LCO 3.0.5 Bases is replaced. A new example is added to the STS Bases for LCO 3.0.5. The other existing examples in the LCO 3.0.5 Bases regarding instrument channels are revised and retained.

The added statements to STS Bases LCO 3.0.5 are as follow:

LCO 3.0.5 should not be used in lieu of other practicable alternatives that comply with Required Actions and that do not require changing the MODE or other specified conditions in the Applicability in order to demonstrate equipment is OPERABLE. LCO 3.0.5 is not intended to be used repeatedly.

An example of demonstrating equipment is OPERABLE with the Required Actions not met is opening a manual valve that was closed to comply with Required Actions to isolate a flowpath with excessive Reactor Coolant System (RCS) Pressure Isolation Valve (PIV) leakage in order to perform testing to demonstrate that RCS PIV leakage is now within limit.

[...]

Examples of demonstrating equipment OPERABILITY include instances in which it is necessary to take an inoperable channel or trip system out of a tripped condition that was directed by a Required Action, if there is no Required Action Note for this purpose. An example of verifying OPERABILITY of equipment removed from service is taking a tripped channel out of the tripped condition to permit the logic to function and indicate the appropriate response during performance of required testing on the inoperable channel.

[...]

The administrative controls in LCO 3.0.5 apply in all cases to systems or components in Chapter 3 of the Technical Specifications, as long as the testing could not be conducted while complying with the Required Actions. This includes the realignment or repositioning of redundant or alternate equipment or trains previously manipulated to comply with ACTIONS, as well as equipment removed from service or declared inoperable to comply with ACTIONS.

~~The TSTF also proposed to revise STS Bases for LCO 3.0.5 Bases to clarify that LCO 3.0.5 should not be used if there are other alternatives to demonstrate that an LCO is met and maintain compliance with actions.~~

~~In addition, in a related change, an incorrect example in the LCO 3.0.5 Bases is replaced. A new example is added to the STS Bases for LCO 3.0.5. The other existing examples in the LCO 3.0.5 Bases regarding instrument channels are revised and retained.~~

The NRC staff finds the proposed change to be acceptable because it is consistent with the intent of LCO 3.0.5 and provides additional guidance to licensees to avoid misinterpretation.

A.5 Proposed Changes to the Bases for SR 3.0.2 and SR 3.0.3 to Address "Operational Convenience"

The term "operational convenience" appears four times in the STS Bases: LCO 3.0.2, LCO 3.0.3, SR 3.0.2, and SR 3.0.3. It does not appear in the Specifications. The TSTF proposed to delete the term "operational convenience" from STS Bases for SR 3.0.2 and SR 3.0.3. The term remains in the Bases for LCO 3.0.2 and LCO 3.0.3.

The intent of the phrase "operational convenience" is to ensure licensees apply good planning strategies that avoid ~~repetitive voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable~~ taking redundant systems out of service (OOS) simultaneously when there is still time on the clock (Completion Times plus SR 3.0.2 allowances). For example, an option to avoid operational convenience would be ~~taking-making~~ only one train of a system ~~OOS-inoperable~~ at a time to maintain safety function instead of taking both trains out for planned maintenance to shorten maintenance time.

~~The NRC staff finds the~~ ~~The TSTF~~ proposed change is acceptable because it does not alter the intent. The intent of the allowances provided by SR 3.0.2 and SR 3.0.3 is to ensure licensees perform required SRs and validate equipment's capability of performing its intended safety functions. The allowances of SR 3.0.2 and SR 3.0.3 are not to permit repetitive voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable. The term "repeatedly" is added for consistency with SR 3.0.2 and to avoid the STS Bases being in apparent conflict with the allowance in SR 3.0.3.

A.6 Proposed Changes to the Bases for SR 3.0.3

A.6.1 Never Performed Surveillance Requirements

The TSTF proposed to revise STS Bases for SR 3.0.3 to allow application of SR 3.0.3 when an SR has not been previously performed and to clarify the application of SR 3.0.3.

As discussed in Section 3.1.3 of the TSTF-529, Revision 3, safety evaluation, the TSTF proposed to expand the scope of the allowance provided by SR 3.0.3 to surveillances that have never been performed. The following changes proposed by the TSTF to STS Bases for SR 3.0.3 are needed for consistency with the revised SR 3.0.3:

SR 3.0.3 is only applicable if there is a reasonable expectation the associated equipment is OPERABLE or that variables are within limits, and it is expected that the Surveillance will be met when performed. Many factors should be considered, such as the period of time since the Surveillance was last performed, or whether the Surveillance, or a portion thereof, has ever been performed, and any other indications, tests, or activities that might support the expectation that the Surveillance will be met when performed. An example of the use of SR 3.0.3 would be a relay contact that was not tested as required in accordance with a particular SR, but previous successful performances of the SR included the relay contact; the adjacent, physically connected relay contacts were tested during the SR performance; the subject relay contact has been tested by another SR; or historical operation of the subject relay contact has been successful. It is not sufficient to infer the behavior of the associated equipment from the performance of similar equipment. The rigor of determining whether there is a reasonable expectation a Surveillance will be met when performed should increase based on the length of time since the last performance of the Surveillance. If the Surveillance has been performed recently, a review of the Surveillance history and equipment performance may be sufficient to support a reasonable expectation that the Surveillance will be met when performed.

For Surveillances that have not been performed for a long period or that have never been performed, a rigorous evaluation based on objective evidence should provide a high degree of confidence that the equipment is OPERABLE. The evaluation should be documented in sufficient detail to allow a knowledgeable individual to understand the basis for the determination.

The NRC staff finds the proposed change acceptable as it is consistent with the proposed change to SR 3.0.3.

A.6.2 "Completing" Replaced with "Performing"

The STS Bases for SR 3.0.3 use the term "completing" with respect to an SR four times. Specification SR 3.0.3 uses the term "performing" a Surveillance. The term "performed" is defined in the "Description" Section of STS 1.4, "Use and Application, Frequency," as

specifically determining the ability to meet the acceptance criteria. While the terms (complete and perform) have the same meaning in this context, the TSTF proposed to substitute the terms "complete" or "completion" ~~for~~ *with* "perform" or "performance" in the STS Bases to improve consistency between the Specifications and the Bases.

The NRC staff finds these proposed changes adequate since they provide greater clarity by maintaining consistency within the STS.

Attachment 2
TSTF-529, Revision 4

Technical Specifications Task Force Improved Standard Technical Specifications Change Traveler

Clarify Use and Application Rules

NUREGs Affected: 1430 1431 1432 1433 1434

Classification: 1) Technical Change

Recommended for CLIP?: Yes

Correction or Improvement: Improvement

NRC Fee Status: Not Exempt

Changes Marked on ISTS Rev 4.0

See attached justification.

Revision History**OG Revision 0****Revision Status: Closed**

Revision Proposed by: TSTF

Revision Description:

Original Issue

Owners Group Review Information

Date Originated by OG: 27-May-10

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 17-Jun-11

TSTF Review Information

TSTF Received Date: 25-Aug-11 Date Distributed for Review 25-Aug-11

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:
(No Comments)

TSTF Resolution: Approved Date: 21-Sep-11

NRC Review Information

NRC Received Date: 21-Sep-11

NRC Comments:
See the Revision 1 description.

Final Resolution: NRC Requests Changes: TSTF Will Revise Final Resolution Date: 16-Oct-12

TSTF Revision 1**Revision Status: Closed**

Revision Proposed by: TSTF

29-Feb-16

TSTF Revision 1**Revision Status: Closed**

Revision Description:

At an October 16, 2012 TSTF/NRC meeting to discuss TSTF-529, the TSTF agreed to revise TSTF-529, Revision 0. The following changes are made to the indicated changes numbered in justification:

1. Revision 0 changed Section 1.3 and the LCO 3.0.2 Bases to define and give an example of "time of discovery." The NRC pointed out that LCO 3.0.2 uses the term "discovery" instead of "time of discovery." Revision 1 proposes to revise Section 1.3 to use the term "discovery" instead of "time of discovery," and to reference two NRC documents that clarify this concept in the Section 3.0 Bases, which together resolve the issue.
 2. Revision 0 changed Section 1.3 for NUREG-1432 (Westinghouse plants) to discuss application of Completion Times for certain existing I&C Notes. In Revision 1, the insert is revised and made applicable to all ISTS NUREGs to explain the exception "unless otherwise specified" in the Section 1.3 statement that Completion Times are referenced to the discovery of a situation that requires entering an ACTIONS Condition unless otherwise specified.
 3. No change.
 4. No change.
 5. Revision 1 replaces the proposed LCO 3.0.5 and associated Bases change to address the NRC concern that the Revision 0 proposal was not focused on testing to restore Operability.
 6. Revision 0 revised the Bases of LCO 3.0, LCO 3.0.2, and SR 3.0 to state that the LCO and SR usage rules were applicable to Section 3.0 of the TS and to Chapter 5 when invoked. Enforcement Guidance Memorandum (EGM) 12-001, "Dispositioning Noncompliance with Administrative Controls Technical Specifications Programmatic Requirements that Extend Test Frequencies and Allow Performance of Missed Tests," issued by the NRC on February 24, 2012, and Regulatory Issue Summary 2012-10, "NRC Staff Position on Applying Surveillance Requirements 3.0.2 and 3.0.3 to Administrative Controls Program Tests," issued August 23, 2012, stated the NRC position that the Section 3.0 rules were not applicable to Chapter 5 requirements. The proposed change is removed from Revision 1 and any necessary clarifications to the Bases will be included in a Traveler that addresses the EGM and RIS.
 7. Revision 0 replaced the phrase "operational convenience" in the TS Bases in four locations (LCO 3.0.2, LCO 3.0.3, SR 3.0.2 and SR 3.0.3). As agreed by the TSTF and NRC, Revision 1 focuses the change on removing the phrase from SR 3.0.2 and SR 3.0.3. The TSTF and NRC will hold a public meeting to discuss replacement, definition, or clarification of the term "operational convenience" in LCO 3.0.2 and LCO 3.0.3.
 8. No change.
 9. No change.
 10. No change.
 11. No change.
 12. No change.
-

29-Feb-16

TSTF Revision 1**Revision Status: Closed**

Owners Group Review Information

Date Originated by OG: 24-Jan-13

Owners Group Comments
(No Comments)Owners Group Resolution: Approved Date: 13-Feb-13

TSTF Review Information

TSTF Received Date: 13-Feb-13 Date Distributed for Review 13-Feb-13

OG Review Completed: BWOG WOG CEOG BWROGTSTF Comments:
(No Comments)TSTF Resolution: Approved Date: 28-Feb-13

NRC Review Information

NRC Received Date: 28-Feb-13

NRC Comments:

NRC accepted for review on 6/20/2013.

Final Resolution: NRC Requests Changes: TSTF Will Revise Final Resolution Date: 18-Jul-13

TSTF Revision 2**Revision Status: Closed**

Revision Proposed by: NRC

Revision Description:

At the July 18, 2013 TSTF/NRC public meeting, the TSTF agreed to make the following changes to address NRC concerns:

Item 1: Removed the proposed references and added the following to Section 1.3, "The Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the declaration that an LCO is not met and an ACTIONS Condition is entered, unless otherwise specified."

Item 2: Revised the inserted paragraph to address NRC comments

item 3: The TSTF removed the change to LCO 3.0.4 and revised the LCO 3.0.4 Bases.

Item 4: No changes made in Revision 2.

Item 5: The TSTF agreed to not revise LCO 3.0.5 and to include the clarification in the Bases.

Item 6: No changes made in Revision 2.

Item 7: No changes made in Revision 2.

29-Feb-16

TSTF Revision 2**Revision Status: Closed**

Item 8: The TSTF revised the paragraph to use consistent terminology.

Item 9: No changes made in Revision 2.

Item 10: No changes made in Revision 2.

Item 11: The justification and markup were revised to reflect the removal of the LCO 3.0.5 rewrite in Change Number 5, while retaining the proposed Revision 1 Bases changes.

Item 12: The proposed Bases insert was revised based on the NRC comments.

Owners Group Review Information

Date Originated by OG: 26-Aug-13

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 16-Sep-13

TSTF Review Information

TSTF Received Date: 16-Sep-13 Date Distributed for Review 18-Sep-13

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:
(No Comments)

TSTF Resolution: Approved Date: 18-Nov-13

NRC Review Information

NRC Received Date: 14-Jan-14

NRC Comments:
See the Revision 3 description.

Final Resolution: NRC Requests Changes: TSTF Will Revise

TSTF Revision 3**Revision Status: Closed**

Revision Proposed by: TSTF

Revision Description:

At the February 5, 2015 TSTF/NRC meeting, the NRC discussed new RAIs on TSTF-529. On a June 2, 2015 NRC/TSTF teleconference, the TSTF agreed to revise TSTF-529 in lieu of NRC sending a formal RAI. TSTF provided a draft revision for NRC comment on June 30, 2015. At the July 23, 2015 TSTF/NRC public meeting, the NRC provided comments on the proposed change.

The following changes are made to TSTF-529 in Revision 3:

1. Section 1.3 is revised to state, "Unless otherwise specified, the Completion Time begins when a senior

29-Feb-16

TSTF Revision 3**Revision Status: Closed**

licensed operator on the operating shift crew with responsibility for plant operations makes the determination (instead of "declaration") that an LCO is not met." The term "declaration" implied a process (the operability determination process), which is not what was intended.

2. In the LCO 3.0.5 Bases, reference was made to an NRC letter to Calvert Cliffs nuclear power plant. That reference is removed from the Bases but remains in the justification.
3. A change to SR 3.0.3 is made. The sentence "The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed" is added and the Bases are revised to describe determining a "reasonable expectation" when a Surveillance has not been performed before or has not been performed for a long period.
4. The justification and model application were revised to no longer request NRC approval of the Bases changes.
5. The justification was revised to reorder and improve the discussion.

Owners Group Review Information

Date Originated by OG: 04-Aug-15

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 26-Aug-15

TSTF Review Information

TSTF Received Date: 31-Aug-15 Date Distributed for Review 31-Aug-15

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:
(No Comments)

TSTF Resolution: Approved Date: 14-Sep-15

NRC Review Information

NRC Received Date: 14-Sep-15

Final Resolution: Superseded by Revision

TSTF Revision 4**Revision Status: Active**

Revision Proposed by: TSTF

Revision Description:

The justification and model application are revised to no longer refer to a Notice of Availability published in the Federal Register. Administrative improvements are made to the model application. The TS and Bases markups are not changed. Changes to the justification and the model application are indicated by revision

29-Feb-16

TSTF Revision 4**Revision Status: Active**

bars in the right margin.

TSTF Review Information

TSTF Received Date: 22-Feb-16 Date Distributed for Review 22-Feb-16

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved

Date: 29-Feb-16

NRC Review Information

NRC Received Date: 29-Feb-16

Affected Technical Specifications

1.3	Completion Times
LCO 3.0.2 Bases	LCO Applicability
SR 3.0.2 Bases	LCO Applicability
LCO 3.0.3 Bases	LCO Applicability
SR 3.0.3	LCO Applicability
SR 3.0.3 Bases	LCO Applicability
LCO 3.0.4	LCO Applicability
LCO 3.0.4 Bases	LCO Applicability
LCO 3.0.5 Bases	LCO Applicability

29-Feb-16

1.0 Description

The proposed change will revise sections 1.3, "Completion Times," and sections 3.0, "LCO Applicability" and "SR Applicability" of the Technical Specifications (TS), and the TS Bases for Section 3.0, "LCO Applicability" and "SR Applicability." The proposed changes clarify and expand the use and application of the TS usage rules. The proposed change addresses issues that have resulted in NRC Task Interface Agreement requests, a licensee request for an interpretation of the TS, licensee violations, and many licensee and NRC inspector questions.

2.0 Proposed Change

The following changes to the TS and Bases are proposed:

1. Section 1.3 is revised to clarify "discovery."
2. Section 1.3 is revised to discuss exceptions to starting the Completion Time at condition entry.
3. Limiting Condition for Operation (LCO) 3.0.4.b is revised to clarify that LCO 3.0.4.a, LCO 3.0.4.b, and LCO 3.0.4.c are independent options. The LCO 3.0.4.a Bases are revised to support this clarification.
4. Surveillance Requirement (SR) 3.0.3 and the associated Bases are revised to allow application of SR 3.0.3 when an SR has not been previously performed and to clarify the application of SR 3.0.3.
5. The LCO 3.0.4.a Bases are revised to clarify that Required Actions must be followed after entry into the Modes and other specified conditions in the Applicability. An example is added to the Bases.
6. The LCO 3.0.5 Bases are revised to clarify its application.
7. The SR 3.0.2 and SR 3.0.3 Bases are revised to remove the term "Operational Convenience."
8. The LCO 3.0.3 and SR 3.0.3 Bases are revised to use consistent terminology.
9. The LCO 3.0.3 Bases are corrected to state that a unit shutdown may be terminated and LCO 3.0.3 exited if the LCO is no longer applicable.
10. The LCO 3.0.4.c Bases are revised to replace a misleading TS reference.
11. The LCO 3.0.5 Bases are revised to clarify that LCO 3.0.5 should not be used if there are other alternatives to demonstrate that an LCO is met and maintain compliance with Actions. The LCO 3.0.5 Bases examples are revised.

A model application is included in the proposed change. The model may be used by licensees desiring to adopt TSTF-529 following ~~publication approval of the traveler~~ by the NRC ~~of the Notice of Availability in the Federal Register~~.

The proposed change includes changes to the TS Bases. The regulation at Title 10 of the Code of Federal Regulations (10 CFR), Part 50.36, states: "A summary statement of the bases or reasons for such specifications, other than those covering administrative controls, shall also be included in the application, but shall not become part of the technical specifications." A licensee may make changes to the TS Bases without prior NRC staff review and approval in accordance with the Technical Specifications Bases Control Program. The proposed TS Bases changes are consistent with existing TS and the proposed TS changes and provide the purpose for each requirement in the specification consistent with the Commission's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, dated July 2, 1993 (58 FR 39132).

3.0 Background

In January and February 2009, the Technical Specifications Task Force (TSTF) and NRC met to discuss questions and possible ambiguities on the application of the Improved Standard Technical Specifications (ISTS). The topics for discussion were gathered from both the NRC and the industry. In all, ten areas of ambiguity were discussed. In almost all cases, the TSTF and the NRC reached agreement on the application of the ISTS or agreed on a process to reach agreement.

The TSTF agreed to prepare a TSTF Traveler for NRC review to document areas of agreement in the TS and Bases, and present proposed resolutions for the remaining areas under question. The TSTF queried the industry and identified several areas in Section 1.3, LCO 3.0 and SR 3.0 that would benefit from clarification. These clarifications are generally minor or editorial, but routinely generate questions from licensee and NRC staff and are, therefore, worthy of correction.

4.0 Technical Analysis

4.1 Section 1.3 is revised to clarify "discovery"

LCO 3.0.2 states, "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." The LCO 3.0.2 Bases state, "LCO 3.0.2 establishes that upon discovery of a failure to meet an LCO, the associated ACTIONS shall be met." Section 1.3 states that the Completion Time is "referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits)." Understanding the term "discovery" is fundamental in applying Required Actions and associated Completion Times.

There sometimes is confusion by both NRC and industry staff on the meaning of the term "discovery." Much of this confusion results from differing guidance depending on whether one is considering TS compliance or reportability under 10 CFR 50.72 and 10 CFR 50.73. *In referring to Completion Times, ~~Except in Section 1.3,~~* the TS use the

term "discovery," but Section 1.3 uses the phrase "time of discovery." This creates confusion because the reportability regulations and their associated guidance use the phrase "time of discovery" with a different meaning. Therefore, it is worthwhile to revise Section 1.3 to use the term "discovery" instead of "time of discovery" consistent with LCO 3.0.2 ~~and the remainder of the TS and Bases.~~

The proposed change makes the following revision to the "Description" section of Section 1.3:

The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the ~~time of~~ discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO.

Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered.

If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time. When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the ~~time of~~ discovery of the situation that required entry into the Condition.

(The text in italics is added, and struck-out text is removed.)

This position is consistent with the historical NRC position. For example, in a memorandum from H. L. Thompson, Director, Division of Licensing, to R. Starostecki, Director, Division of Reactor Projects, Region 1, dated August 9, 1985 (Reference 1 and Attachment 1), Mr. Thompson stated:

It is NRR's position that the time limitation of action requirements are applicable from the point in time that it is recognized that the requirements of a limiting condition of operation are not met. This is as noted by your example and proposed interpretation. It was also noted in your memo that this issue is further complicated by recent trends in NRC enforcement which cite the historical inoperability of equipment as a factor in determining the significance of loss of function violations.

In the proposed change, the phrase "and an ACTIONS Condition is entered" is necessary to accommodate circumstances in which LCO 3.0.6 allows an LCO to not be met without entry into the Conditions. In those circumstances, a Completion Time does not begin.

This Section 1.3 revision in conjunction with the LCO 3.0.2 Bases makes it clear that discovery is when a senior licensed operator on the operating shift crew with

responsibility for plant operations determines that an LCO is not met and a Condition is entered.

4.2 Section 1.3 to revised to discuss exceptions to starting the Completion Time at condition entry

Section 1.3 states:

The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO. (emphasis added.)

The phrase, "unless otherwise specified," is not explained in Section 1.3 or in the LCO 3.0.2 Bases. (Note that Section 4.1, above, describes a proposed change to the above paragraph that does not affect this change.)

There are a number of examples of specifying a different reference point for the start of the Completion Time other than discovery.

- All ISTS 3.8.1, "AC Sources - Operating," Required Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator, inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case, the Completion Time does not begin until the conditions in the Completion Time are satisfied.
- BWR/4 and BWR/6 ISTS 3.3.1.1A and 3.3.1.1B, "Reactor Protection System Instrumentation," Table 3.3.1.1, contains a Note that states, "When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the associated Function maintains RPS trip capability." It is recognized that performing the required testing makes the channel inoperable, but entering the Required Actions and starting the Completion Time is deferred.
- Similar Notes appear in the BWR/4 and BWR/6 SR tables for Control Rod Block Instrumentation, BWR/4 Feedwater and Main Turbine High Water Level Trip Instrumentation, EOC-RPT Instrumentation, ATWS-RPT Instrumentation, ECCS Instrumentation, RCIC System Instrumentation, Primary Containment Isolation Instrumentation, Secondary Containment Isolation Instrumentation, BWR/6 RHR Containment Spray System Instrumentation, BWR/6 SPMU System Instrumentation, BWR/4 LLS Instrumentation, BWR/6 Relief and LLS Instrumentation, BWR/4 ISTS [MCREC] System Instrumentation, BWR/6 ISTS [CRFA] System Instrumentation, and LOP Instrumentation.

- Westinghouse ISTS 3.3.1A and 3.3.1B, "Reactor Trip System Instrumentation," Conditions D, E, K, L,M, N, O, and P, contain Notes similar to, "One channel may be bypassed for up to 12 hours for surveillance testing and setpoint adjustment." It is recognized that placing the train in bypass renders the train inoperable, but starting the Completion Time is deferred in accordance with the Notes.
- Westinghouse ISTS 3.3.2A and 3.3.2B, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Conditions C, D, E, G, H, I, and K, contain Notes similar to , "One channel may be bypassed for up to 12 hours for surveillance testing and setpoint adjustment." It is recognized that placing the train in bypass renders the train inoperable, but starting the Completion Time is deferred in accordance with the Notes.
- Many BWR Actions in Section 3.3, "Instrumentation," have Completion Times similar to, "[1] hour from discovery of loss of initiation capability for features in both divisions." It is recognized that the Completion Time starts, not on Condition entry, but on meeting the condition in the Completion Time.

The lack of explanation has resulted in questions by licensees and inspectors. For example, if a clause that provides a delayed start time is no longer applicable or the time period in the clause has expired, it is unclear if the Completion Time is referenced to entry into the Condition or to the point that the clause is exited. To address these questions, a paragraph is added to Section 1.3:

Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered. The "otherwise specified" exceptions are varied, such as a Required Action Note or Surveillance Requirement Note that provides an alternative time to perform specific tasks, such as testing, without starting the Completion Time. While utilizing the Note, should a Condition be applicable for any reason not addressed by the Note, the Completion Time begins. Should the time allowance in the Note be exceeded, the Completion Time begins at that point. The exceptions may also be incorporated into the Completion Time. For example, LCO 3.8.1, "AC Sources - Operating," Required Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator, inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case the Completion Time does not begin until the conditions in the Completion Time are satisfied.

The first sentence in the added paragraph is discussed in Section 4.1.

Two other sentences in Section 1.3 are revised to establish internal consistency:

When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the time of discovery of the situation that required entry into the Condition, *unless otherwise specified*.

and

The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition, *unless otherwise specified*.

In a complementary change, the Bases of LCO 3.0.2 are revised to eliminate a minor discrepancy between the TS (Section 1.3) and the Bases. Section 1.3 states that a Completion Time is referenced to the time of discovery of a situation that requires entering an ACTIONS Condition unless otherwise specified (emphasis added). LCO 3.0.2 makes a similar statement but without the qualifier, "unless otherwise specified." Therefore, the LCO 3.0.2 Bases are revised to state:

The Completion Time of each Required Action for an ACTIONS Condition is applicable from the point in time that an ACTIONS Condition is entered, *unless otherwise specified*.

The changes are needed to be consistent with existing ISTS, as discussed above.

4.3 LCO 3.0.4.b is revised to clarify that LCO 3.0.4.a, LCO 3.0.4.b, and LCO 3.0.4.c are independent options

LCO 3.0.4 contains three options, labeled paragraphs a, b, and c. Paragraph a ends with a semicolon and Paragraph b ends with ", or". This presentation is consistent with the ordered list format as described TSTF-GG-05-01, "Writers Guide for Plant-Specific Improved Technical Specifications," except that Paragraph b should end with a semicolon, such as "; or".

LCO 3.0.4.b states:

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

The separation of the majority of the text from the "or" conjunction by the phrase regarding exceptions has misled some readers to interpret the "or" statement to only apply to the phrase regarding exceptions and to believe that LCO 3.0.4.a, b, and c apply concurrently. The sentence is clarified by placing the statement regarding exceptions in parenthesis and to replace the ending comma with a semicolon:

After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of

entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; (exceptions to this Specification are stated in the individual Specifications);⁵ or

The Bases are also revised to clarify this point. The introductory paragraph of LCO 3.0.4 is revised to insert the word "either" as follows: "in accordance with *either* LCO 3.0.4.a, LCO 3.0.4.b, or LCO 3.0.4.c" (Added text is in italics).

4.4 SR 3.0.3 and the associated Bases are revised to allow application of SR 3.0.3 when an SR has not been previously performed and to clarify the application of SR 3.0.3

SR 3.0.3 is an exception to the requirement that a Surveillance be performed within the specified Frequency. SR 3.0.3 states, "If it is discovered that a Surveillance was not performed..." SR 3.0.3 is not an exception to the requirement for SRs to be met¹ during the Modes or other specified conditions in the Applicability. This is a key consideration in the application of SR 3.0.3.

In December 2008, the NRC issued a response to Task Interface Agreement (TIA) 2008-004, "Evaluation of Application of Technical Specification (TS) 4.0.3, 'Surveillance Requirement Applicability,' At Pilgrim" (NRC ADAMS Accession No. ML083660174). The Pilgrim TS 4.0.3 is similar to STS SR 3.0.3. In the TIA response, the NRC took the position that a missed SR is different than an SR that was never performed, and that SR 3.0.3 is not applicable to SRs that have never been performed.

Information is added to SR 3.0.3 and the SR 3.0.3 Bases to address the NRC's position on the application of SR 3.0.3 and to allow SR 3.0.3 to be applied, when appropriate, to missed Surveillances that have never been performed. SR 3.0.3 is revised to state:

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 greater. This delay period is permitted to allow performance of the Surveillance. *The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed.* A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

¹ The terms "met" and "performed" are defined in Section 1.4, "Use and Application, Frequency" of the ISTS. It states: "The use of 'met' or 'performed' in these instances conveys specific meanings. A Surveillance is 'met' only when the acceptance criteria are satisfied. Known failure of the requirements of a Surveillance, even without a Surveillance specifically being 'performed,' constitutes a Surveillance not 'met.' 'Performance' refers only to the requirement to specifically determine the ability to meet the acceptance criteria."

The SR 3.0.3 Bases are revised to discuss the SR 3.0.3 addition:

SR 3.0.3 is only applicable if there is a reasonable expectation the associated equipment is OPERABLE or that variables are within limits, and it is expected that the Surveillance will be met when performed. Many factors should be considered, such as the period of time since the Surveillance was last performed, or whether the Surveillance, or a portion thereof, has ever been performed, and any other indications, tests, or activities that might support the expectation that the Surveillance will be met when performed. An example of the use of SR 3.0.3 would be a relay contact that was not tested as required in accordance with a particular SR, but previous successful performances of the SR included the relay contact; the adjacent, physically connected relay contacts were tested during the SR performance; the subject relay contact has been tested by another SR; or historical operation of the subject relay contact has been successful. It is not sufficient to infer the behavior of the associated equipment from the performance of similar equipment. The rigor of determining whether there is a reasonable expectation a Surveillance will be met when performed should increase based on the length of time since the last performance of the Surveillance. If the Surveillance has been performed recently, a review of the Surveillance history and equipment performance may be sufficient to support a reasonable expectation that the Surveillance will be met when performed. For Surveillances that have not been performed for a long period or that have never been performed, a rigorous evaluation based on objective evidence should provide a high degree of confidence that the equipment is OPERABLE. The evaluation should be documented in sufficient detail to allow a knowledgeable individual to understand the basis for the determination.

The concept of "reasonable expectation" is discussed in NRC Inspection Manual Chapter 0326, Section 3.9, that states:

The discovery of a degraded or nonconforming condition may call the operability of one or more SSCs [structures, systems, or components] into question. A subsequent determination of operability should be based on the licensee's 'reasonable expectation,' from the evidence collected, that the SSCs are operable and that the operability determination will support that expectation. Reasonable expectation does not mean absolute assurance that the SSCs are operable. The SSCs may be considered operable when there is evidence that the possibility of failure of an SSC has increased, but not to the point of eroding confidence in the reasonable expectation that the SSC remains operable. The supporting basis for the reasonable expectation of SSC operability should provide a high degree of confidence that the SSCs remain operable. It should be noted that the standard of 'reasonable expectation' is a high standard, and that there is no such thing as an indeterminate state of operability; an SSC is either operable or inoperable.

The standard of "reasonable expectation" is also appropriate for the question of whether a licensee may apply SR 3.0.3 to an SR that has not been performed within its specified Frequency. In both cases the question to be addressed is whether the associated

equipment is believed to be Operable or that variables are within limits. If the licensee has a reasonable expectation (a high standard) that performance of the SR will confirm that the equipment is Operable or a variable to be verified is within limits, then SR 3.0.3 may be applied to the SR that has not been performed. If the licensee does not have this reasonable expectation, then under SR 3.0.1 the SR is not met and the associated LCO is not met.

The proposed change to SR 3.0.3 is consistent with the intent of SR 3.0.3 as stated in GL 87-09. It states:

It is overly conservative to assume that systems or components are inoperable when a surveillance has not been performed because the vast majority of surveillances do in fact demonstrate that systems or components are operable. When a surveillance is missed, it is primarily a question of operability that has not been verified by the performance of a Surveillance Requirement.

The SR 3.0.3 Bases discuss determining whether there is a reasonable expectation that the SR will be met when performed. In particular, the Bases discuss the case of an SR that has never been performed or has not been performed for a long time, such that establishing a reasonable expectation that the SR is met is more difficult. The proposed change to SR 3.0.3 and the discussion in the SR 3.0.3 Bases address the NRC's position by providing guidance to licensees on application of SR 3.0.3 in such circumstances.

4.5 LCO 3.0.4.a Bases are revised to clarify that Required Actions must be followed after entry into the Modes and other specified conditions in the Applicability

LCO 3.0.4.a states:

When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made: a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time; ...

In the memorandum "Final Task Interface Agreement - Reevaluation of Implementation of Limiting Condition for Operation 3.0.4a, 'Mode Change Limitations,' At Palisades Nuclear Plant (TIA 2009-005)," dated September 17, 2009 (NRC Agencywide Document Access and Management System (ADAMS) Accession Number ML092540032), the NRC issued a response to a Task Interface Agreement (TIA) request documenting the Staff position regarding the application of Technical Specification LCO 3.0.4.a. The NRC's stated position in the response to TIA 2009-005, was " ...while...completing the TS required actions to be entered before conducting a mode transition with inoperable equipment establishes the basis for continued operation, the completion of those actions is not a requirement for compliance with LCO 3.0.4a."

The Bases of LCO 3.0.4 are revised to clarify the intent of LCO 3.0.4.a, as described in the TIA response, as follows:

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

The LCO 3.0.4 Bases are also revised to add an example of the application of LCO 3.0.4.a. The example addresses a frequent question by clarifying that it is not necessary that every possible set of Required Actions allow continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time, only that a set of Required Actions allow continued operation. For example, it is not necessary to assume that the licensee does not perform the Required Actions, such as placing a channel in trip or starting a piece of equipment. The proposed Bases insert states:

For example, LCO 3.0.4.a may be used when the Required Action to be entered states that an inoperable instrument channel must be placed in the trip condition within the Completion Time. Transition into a MODE or other specified in condition in the Applicability may be made in accordance with LCO 3.0.4 and the channel is subsequently placed in the tripped condition within the Completion Time, which begins when the Applicability is entered. If the instrument channel cannot be placed in the tripped condition and the subsequent default ACTION ("Required Action and associated Completion Time not met") allows the OPERABLE train to be placed in operation, use of LCO 3.0.4.a is acceptable because the subsequent ACTIONS to be entered following entry into the MODE include ACTIONS (place the OPERABLE train in operation) that permit safe plant operation for an unlimited period of time in the MODE or other specified condition to be entered.

4.6 LCO 3.0.5 Bases are revised to clarify its application

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.

LCO 3.0.5 provides a necessary flexibility to facilitate restoring equipment to Operability (or to perform Surveillances required to verify Operability).

LCO 3.0.5 discusses equipment removed from service that is to be returned to service. This addresses the majority of situations; however, it does not address all situations in that LCO 3.0.5 could be used. In some TS, ACTIONS involve the placement of redundant or alternate equipment or trains into service, or the repositioning (opening or closing) of components. An example is the Pressurizer Power Operated Relief Valves (PORVs) for Pressurized Water Reactors (PWRs). If a PORV is inoperable, the Required Action is to close the associated block valve in order to isolate the inoperable PORV. Once the PORV is repaired, it may be necessary to stroke the PORV in order to demonstrate its Operability. The closed block valve must be opened so that system pressure is restored to the PORV, allowing the PORV to be stroked. It is not clear that the Required Action to close the block valve falls under the LCO 3.0.5 allowance.

In a letter dated May 18, 2011, Calvert Cliffs Nuclear Power Plant LLC (CCNPP) requested a written interpretation from the NRC staff on the application of LCO 3.0.5 to six Required Actions in which use of LCO 3.0.5 would not involve restoring the component to service to perform required testing (NRC ADAMS Accession No. ML11145A085). The NRC responded on December 20, 2011 (NRC ADAMS Accession No. ML112940645). The NRC stated:

The NRC staff concludes that CCNPP TS Required Action 3.3.7.B.1, 3.3.8.A.1, 3.4.11.A.1, 3.4.11.C.1, 3.7.3.A.1, and 3.7.8.A.1 are within the scope of the administrative controls applied by LCO 3.0.5 for the purpose of realignment of components needed for conducting the operability testing on equipment, so long as the testing could not be conducted while relying on TS Required Actions. This includes the repositioning of redundant or alternate equipment or trains previously manipulated to comply with the TS Required Action. The staff further concludes that LCO 3.0.5 would apply in all cases to systems or components in Section 3 of the licensee's TSs. (emphasis added)

The LCO 3.0.5 Bases are revised to reflect the NRC staff interpretation of LCO 3.0.5 by adding the following paragraph:

The administrative controls in LCO 3.0.5 apply in all cases to systems or components in Chapter 3 of the Technical Specifications, as long as the testing could not be conducted while complying with the Required Actions. This includes the realignment or repositioning of redundant or alternate equipment or trains previously manipulated to comply with ACTIONS, as well as equipment removed from service or declared inoperable to comply with ACTIONS.

4.7 SR 3.0.2 and SR 3.0.3 Bases are revised to remove the term "Operational Convenience"

The term "operational convenience" appears four times in the Bases of each ISTS NUREG: in the Bases of LCO 3.0.2, LCO 3.0.3, SR 3.0.2, and SR 3.0.3. It does not appear in the Specifications.

The ISTS LCO 3.0.2 Bases state:

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/divisions of a safety function are inoperable and limits the time conditions exist which may result in LCO 3.0.3 being entered. (emphasis added).

The ISTS LCO 3.0.3 Bases state:

This Specification delineates the time limits for placing the unit 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. (emphasis added).

The ISTS SR 3.0.2 Bases state:

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. (emphasis added).

The ISTS SR 3.0.3 Bases state:

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. While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should... (Emphasis added).

Use of the term "operational convenience" in the Bases of the TS has changed and been expanded from its original use and intent, and the revised Bases have created difficulty in interpreting and applying the current guidance. Bases revisions are proposed to replace this term in SR 3.0.2 and SR 3.0.3 with information reflecting its original intent.

The term "operational convenience" first appeared in several 1987-era documents. Its first use is in the model Bases markups attached to Generic Letter (GL) 87-09, "Sections 3.0 and 4.0 of the Standard Technical Specifications (STS) on the Applicability of Limiting Conditions for Operation and Surveillance Requirements," dated June 4, 1987 (Reference 3). Copies of the applicable Model PWR Bases pages from GL 87-09, Enclosure 3, are included as Attachment 2 for reference. In the two GL 87-09 Bases sections where the term "operational convenience" is used, it is equated with "(routine) voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable." Also, the operational convenience concept is only linked to intentional entries into Actions that directly contain a shutdown requirement. As stated, "It is not intended that the shutdown ACTION requirements be used as an operational convenience which permits (routine) voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable" (emphasis added). The term "operational convenience" was not utilized in the Bases for Surveillance Requirement 4.0.2 (now called SR 3.0.2) or in the Bases for SR 4.0.3 (now SR 3.0.3).

The question of potential misinterpretation of the proposed words in GL 87-09 was raised almost immediately by the industry. For example, in a meeting held with Carolina Power & Light on September 17, 1987 (Reference 4 and Attachment 3), when the intent of the GL words were still fresh, the NRC clarified that the term was only intended to limit intentional entry into ACTIONS when the situation involves redundant systems being out of service. The NRC staff stated that, for both Bases sentences, "...the point of clarification is that the last echelon of defense should not be removed from service such that this would invoke a prompt shutdown action requirement, in lieu of other alternatives that would not result in redundant systems being out of service simultaneously."

The third 1987 document (Reference 5 and Attachment 4) is an Inspection Manual Part 9900 Technical Guidance document, "Standard Technical Specifications (STS) Section 3.0.3 Limiting Conditions for Operation." Similar to the above, the operational convenience words are linked to situations in which redundant safety systems would be out of service, and it explains that the concern is for situations in which entry into ACTIONS would show a disregard for plant safety.

In the 1991 time frame, during the development of Revision 0 of the ISTS NUREGs, the above described concept was broken down into several separate sentences in the LCO 3.0.2 Bases. Additional changes made during the development of the ISTS (some at the request of the industry) resulted in the term "operational convenience" becoming separated from the concept of "(routine) voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable." It was also separated from the link to Actions

that directly involve a shutdown requirement. In addition, the term was introduced into the SR 3.0.2 Bases in circumstances in which the GL 87-09 intent was not applicable. The June 1992 "Proof and Review" version of the ISTS NUREGs also added the term to the SR 3.0.3 Bases, again in circumstances that are not consistent with the original intent, as the SR usage rules are not related to entry into ACTIONS.

The proposed change revises the Bases of SR 3.0.2 and SR 3.0.3 to restore the original intent and to eliminate the incorrect application of the term "operational convenience."

The Bases of SR 3.0.2 are revised to state:

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.

This change does not alter the intent, while eliminating the inconsistent use of the term "operational convenience."

The Bases of SR 3.0.3 are revised to state:

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~~ *repeatedly* to extend Surveillance intervals.

This change does not alter the intent, while eliminating the inconsistent use of the term "operational convenience." The term "repeatedly" is added for consistency with SR 3.0.2 and to avoid the Bases being in apparent conflict with the allowance in SR 3.0.3.

4.8 LCO 3.0.3 and SR 3.0.3 Bases are revised to use consistent terminology

The LCO 3.0.3 Bases uses the term "reaching" when describing a transition to a lower MODE. The term "entering" is more accurate and is the commonly used term in the TS for MODE transitions. The term is ambiguous as it's not clear whether the MODE conditions in Table 1.1 are met. In seven locations in the LCO 3.0.3 Bases, the term "reaching" a MODE is replaced with the term "entering" a MODE.

The SR 3.0.3 Bases use the term "completing" with respect to an SR four times. Specification SR 3.0.3 uses the term "performing" a Surveillance. The term "performed" is defined in the "Description" section of Specification 1.4, "Use and Application, Frequency," as specifically determining the ability to meet the acceptance criteria. While the terms (complete and perform) have the same meaning in this context, the terms "perform" or "performance" are substituted in the Bases for "complete" or "completion" to improve consistency between the Specifications and the Bases.

These changes do not represent any change in intent, but are made for consistency within the ISTS.

4.9 LCO 3.0.3 Bases are corrected to state that a unit shutdown may be terminated and LCO 3.0.3 exited if the LCO is no longer applicable

The LCO 3.0.3 Bases state:

A unit 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, or
- 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.

This list is incomplete. As stated in LCO 3.0.2, "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." The list in the LCO 3.0.3 Bases does not acknowledge that a unit shutdown may be terminated and LCO 3.0.3 exited if the LCO is no longer applicable (i.e., the LCO that was not met which lead to entry into LCO 3.0.3).

The proposed change adds to the list a new paragraph b that states, "The LCO is no longer applicable," and the subsequent list items are renumbered.

This change does not represent any change in intent, but is made for consistency within the ISTS.

4.10 LCO 3.0.4.c Bases are revised to replace a misleading TS reference

The Bases to LCO 3.0.4.c state:

The risk assessments performed to justify the use of LCO 3.0.4.b usually only consider systems and components. For this reason, LCO 3.0.4.c is typically applied to Specifications which describe values and parameters (e.g., [Containment Air Temperature, Containment Pressure, MCPR, Moderator Temperature Coefficient]), and may be applied to other Specifications based on NRC plant specific approval.

Although the list of specifications to which LCO 3.0.4.c is typically applied is in brackets (i.e., plant specific), the parenthetical phrase is misleading. In the ISTS, LCO 3.0.4.c is only applied to one specification, "RCS Specific Activity." This specification is not listed in the Bases and the listed specifications in the ISTS do not allow application of LCO 3.0.4.c. For consistency within the ISTS, the bracketed list of Specifications is replaced with "(e.g., RCS Specific Activity)."

4.11 LCO 3.0.5 Bases are revised to clarify that LCO 3.0.5 should not be used if there are other alternatives to demonstrate that an LCO is met and maintain compliance with Actions

Many specifications contain provisions that allow Required Actions to not be followed to facilitate repair or testing. For example, the instrumentation specifications may allow channels to be placed in bypass, the containment air lock specification contains an Actions Note that allows entry and exit to perform repairs, and the containment isolation valve specification contains an Actions Note that allows isolated penetration flow paths to be unisolated under administrative control. In these cases, the risks and benefits of not following the Required Action were generically evaluated and accepted and, in some cases, additional restrictions are applied (such as a time limit for keeping an instrument channel in bypass).

When the specification does not provide an allowance to not follow a Required Action in order to establish equipment is Operable, LCO 3.0.5 may be used.

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.

Because LCO 3.0.5 applies in many circumstances, it's not possible to generically evaluate every possible application and, therefore, its use should be minimized. As stated in the LCO 3.0.5 Bases,

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.

In cases in which the Specification's ACTIONS or SRs contain allowances that permit testing to establish an LCO is met, licensees should use those features instead of LCO 3.0.5 as those features have been specifically evaluated and are consistent with LCO 3.0.2. In order to clarify this point, the LCO 3.0.5 Bases are modified by adding the following:

LCO 3.0.5 should not be used in lieu of other practicable alternatives that comply with Required Actions and that do not require changing the MODE or other specified conditions in the Applicability in order to demonstrate equipment is OPERABLE. LCO 3.0.5 is not intended to be used repeatedly.

The proposed change is consistent with the intent of LCO 3.0.5 and provides additional guidance to licensees to avoid misinterpretation.

In a related change, an incorrect example in the LCO 3.0.5 Bases is replaced. In NUREG-1431, -1432, -1433, and -1434 (Westinghouse, Combustion Engineering (CE), Boiling Water Reactor (BWR)/4 and BWR/6 plants), the existing example cites the containment isolation valve specification. As noted above, the containment isolation valve specification contains an Actions Note that eliminates the need to use LCO 3.0.5 to unisolate a penetration to perform Operability testing. Therefore, the example is removed. A new example is added to all of the ISTS NUREGs that describes manual valves closed to isolate Reactor Coolant System Pressure Isolation Valve leakage. The other existing examples in the LCO 3.0.5 Bases regarding instrument channels are revised and retained. The example recognizes NUREG-1431 (Westinghouse plants) contains Required Actions Notes that allow channel testing in lieu of using LCO 3.0.5.

Conclusion

The proposed changes clarify or expand the intent of Section 1.3, and LCO 3.0 and SR 3.0 and their associated Bases and will increase clarity and allow consistent application of the ISTS.

5.0 Regulatory Analysis

5.1 No Significant Hazards Consideration Analysis

The proposed change revises Section 1.3, "Completion Times," and Sections 3.0, "LCO Applicability" and "SR Applicability" of the Technical Specifications to clarify the use and application of the TS usage rules and revise the application of Surveillance Requirement (SR) 3.0.3. Section 1.3 is modified to clarify the concept of "discovery" that a Limiting Condition for Operation (LCO) is not met and to describe existing exceptions to the start of Completion Times in the TS. An editorial change is made to LCO 3.0.4.b to clarify that LCO 3.0.4.a, LCO 3.0.4.b, and LCO 3.0.4.c are independent options. SR 3.0.3 is revised to allow application of SR 3.0.3 when an SR has not been previously performed.

The Technical Specifications Task Force (TSTF) has evaluated whether or not a significant hazards consideration is involved with the proposed generic change by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No.

The proposed changes to Section 1.3 and LCO 3.0.4 have no effect on the requirement for systems to be Operable and have no effect on the application of TS actions. The proposed change to SR 3.0.3 states that the allowance may only be used when there is a reasonable expectation the surveillance will be met when performed. Since the proposed changes does not significantly affect system Operability, the proposed change will have no significant effect on the initiating

events for accidents previously evaluated and will have no significant effect on the ability of the systems to mitigate accidents previously evaluated.

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

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

Response: No.

The proposed change to the TS usage rules does not affect the design or function of any plant systems. The proposed change does not change the Operability requirements for plant systems or the actions taken when plant systems are not operable.

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

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

Response: No.

The proposed change clarifies the application of Section 1.3 and LCO 3.0.4 and does not result in changes in plant operation. SR 3.0.3 is revised to allow application of SR 3.0.3 when an SR has not been previously performed if there is reasonable expectation that the SR will be met when performed. This expands the use of SR 3.0.3 while ensuring the affected system is capable of performing its safety function. As a result, plant safety is either improved or unaffected.

Therefore, it is concluded that this change does not involve a significant reduction in a margin of safety.

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

5.2 Applicable Regulatory Requirements/Criteria

Title 10 of the Code of Federal Regulations, Paragraph 50.36, requires TS and describes LCOs and SRs. The proposed change clarifies the implementation of the TS required by 10 CFR 50.36.

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

6.0 Environmental Consideration

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

7.0 References

1. Memorandum from H. L. Thompson (NRC) to R. Starostecki (NRC), "Technical Specification Interpretation," dated August 9, 1985 (Attachment 4).
2. NRC Inspection Manual, Chapter 0326, "Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety."
3. Generic Letter 87-09, "Sections 3.0 And 4.0 of Standard Tech Specs on Limiting Conditions For Operation And Surveillance Requirements," dated June 6, 1987 (Attachment 2).
4. NRC memorandum, "Summary of Meeting Held on September 17, 1987 Relating to Generic Letter 87-09," dated October 20, 1987 (Attachment 3).
5. Inspection Manual Part 9900 Technical Guidance document, "Standard Technical Specifications (STS) Section 3.0.3 Limiting Conditions for Operation" (Attachment 4).

Attachment 1

Memorandum from H. L. Thompson (NRC) to R. Starostecki (NRC), dated
August 9, 1985



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20535

August 9, 1985

MEMORANDUM FOR: Richard W. Starosteck, Director
Division of Reactor Projects, Region I

FROM: Hugh L. Thompson, Jr., Director
Division of Licensing, NRR

SUBJECT: TECHNICAL SPECIFICATION INTERPRETATION

Your memorandum dated July 15, 1985 requested an interpretation with regard to the point in time that the time limitations of Technical Specification action requirements are applicable. Also, a proposed interpretation related to this matter was provided for consideration as an enclosure.

It is NRR's position that the time limitation of action requirements are applicable from the point in time that it is recognized that the requirements of a limiting condition of operation are not met. This is as noted by your example and proposed interpretation. It was also noted in your memo that this issue is further complicated by recent trends in NRC enforcement which cite the historical inoperability of equipment as a factor in determining the significance of loss of function violations. In the example provided the cause for inoperability was due to maintenance that occurred prior to the time it was recognized that the component was inoperable. We agree that in such a case the basis for determining the safety significance in an enforcement action should not be limited to consideration of when it was recognized that the component was inoperable but rather on the actual total time that the requirements of the limiting condition of operation were not met. In the example you cited, the licensee should have taken appropriate measures to assure that the maintenance was performed correctly including testing to assure that components were operable.

As a final comment with regard to the proposed interpretation enclosed to your inquiry, the Technical Specification Review Group is preparing additional guidance on the application of Section 3/4.0 of the Standard

CONTACT:
T. Dunning, TSRG
x29457

Richard W. Starostecki

- 2 -

August 9, 1985

Technical Specifications. This guidance will provide further clarification of time limitations related to limiting conditions of operation and surveillance requirements. This guidance should be available for use by Resident Inspectors and Regional personnel in the near future. -

Frank J. Miraglia
for Hugh L. Thompson, Jr., Director
Division of Licensing

Attachment 2

Enclosure 3 to Generic Letter 87-09, "Sections 3.0 and 4.0 of Standard Tech Specs on Limiting Conditions For Operation And Surveillance Requirements," dated June 6, 1987

Enclosure 3 to Generic Letter 87-09

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS3/4.0 APPLICABILITY

[NOTE: This enclosure provides revised Bases for all specifications in Sections 3.0 and 4.0.]

BASES

Specification 3.0.1 through 3.0.4 establish the general requirements applicable to Limiting Conditions for Operation. These requirements are based on the requirements for Limiting Conditions for Operation stated in the Code of Federal Regulations, 10 CFR 50.36(c)(2):

"Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specification until the condition can be met."

Specification 3.0.1 establishes the Applicability statement within each individual specification as the requirement for when (i.e., in which OPERATIONAL MODES or other specified conditions) conformance to the Limiting Conditions for Operation is required for safe operation of the facility. The ACTION requirements establish those remedial measures that must be taken within specified time limits when the requirements of a Limiting Condition for Operation are not met.

There are two basic types of ACTION requirements. The first specifies the remedial measures that permit continued operation of the facility which is not further restricted by the time limits of the ACTION requirements. In this case, conformance to the ACTION requirements provides an acceptable level of safety for unlimited continued operation as long as the ACTION requirements continue to be met. The second type of ACTION requirement specifies a time limit in which conformance to the conditions of the Limiting Condition for Operation must be met. This time limit is the allowable outage time to restore an inoperable system or component to OPERABLE status or for restoring parameters within specified limits. If these actions are not completed within the allowable outage time limits, a shutdown is required to place the facility in a MODE or condition in which the specification no longer applies. It is not intended that the shutdown ACTION requirements be used as an operational convenience which permits (routine) voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable.

The specified time limits of the ACTION requirements are applicable from the point in time it is identified that a Limiting Condition for Operation is not met. The time limits of the ACTION requirements are also applicable when a system or component is removed from service for surveillance testing or investigation of operational problems. Individual specifications may include a specified time limit for the completion of a Surveillance Requirement when equipment is removed from service. In this case, the allowable outage time

3/4.0 APPLICABILITY

BASES (Con't)

limits of the ACTION requirements are applicable when this limit expires if the surveillance has not been completed. When a shutdown is required to comply with ACTION requirements, the plant may have entered a MODE in which a new specification becomes applicable. In this case, the time limits of the ACTION requirements would apply from the point in time that the new specification becomes applicable if the requirements of the Limiting Condition for Operation are not met.

Specification 3.0.2 establishes that noncompliance with a specification exists when the requirements of the Limiting Condition for Operation are not met and the associated ACTION requirements have not been implemented within the specified time interval. The purpose of this specification is to clarify that (1) implementation of the ACTION requirements within the specified time interval constitutes compliance with a specification and (2) completion of the remedial measures of the ACTION requirements is not required when compliance with a Limiting Condition of Operation is restored within the time interval specified in the associated ACTION requirements.

Specification 3.0.3 establishes the shutdown ACTION requirements that must be implemented when a Limiting Condition for Operation is not met and the condition is not specifically addressed by the associated ACTION requirements. The purpose of this specification is to delineate the time limits for placing the unit in a safe shutdown MODE when plant operation cannot be maintained within the limits for safe operation defined by the Limiting Conditions for Operation and its ACTION requirements. It is not intended to be used as an operational convenience which permits (routine) voluntary removal of redundant systems or components from service in lieu of other alternatives that would not result in redundant systems or components being inoperable. One hour is allowed to prepare for an orderly shutdown before initiating a change in plant operation. This time permits the operator to coordinate the reduction in electrical generation with the load dispatcher to ensure the stability and availability of the electrical grid. The time limits specified to reach lower MODES of operation permit the shutdown to proceed in a controlled and orderly manner that is well within the specified maximum cooldown rate and within the cooldown capabilities of the facility assuming only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the primary coolant system and the potential for a plant upset that could challenge safety systems under conditions for which this specification applies.

If remedial measures permitting limited continued operation of the facility under the provisions of the ACTION requirements are completed, the shutdown may be terminated. The time limits of the ACTION requirements are applicable from the point in time there was a failure to meet a Limiting Condition for Operation. Therefore, the shutdown may be terminated if the ACTION requirements have been met or the time limits of the ACTION requirements have not expired, thus providing an allowance for the completion of the required actions.

3/4.0 APPLICABILITY

BASES (Con't)

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

The same principle applies with regard to the allowable outage time limits of the ACTION requirements, if compliance with the ACTION requirements for one specification results in entry into a MODE or condition of operation for another specification in which the requirements of the Limiting Condition for Operation are not met. If the new specification becomes applicable in less time than specified, the difference may be added to the allowable outage time limits of the second specification. However, the allowable outage time limits of ACTION requirements for a higher MODE of operation may not be used to extend the allowable outage time that is applicable when a Limiting Condition for Operation is not met in a lower MODE of operation.

The shutdown requirements of Specification 3.0.3 do not apply in MODES 5 and 6, because the ACTION requirements of individual specifications define the remedial measures to be taken.

Specification 3.0.4 establishes limitations on MODE changes when a Limiting Condition for Operation is not met. It precludes placing the facility in a higher MODE of operation when the requirements for a Limiting Condition for Operation are not met and continued noncompliance to these conditions would result in a shutdown to comply with the ACTION requirements if a change in MODES were permitted. The purpose of this specification is to ensure that facility operation is not initiated or that higher MODES of operation are not entered when corrective action is being taken to obtain compliance with a specification by restoring equipment to OPERABLE status or parameters to specified limits. Compliance with ACTION requirements that permit continued operation of the facility for an unlimited period of time provides an acceptable level of safety for continued operation without regard to the status of the plant before or after a MODE change. Therefore, in this case, entry into an OPERATIONAL MODE or other specified condition may be made in accordance with the provisions of the ACTION requirements. The provisions of this specification should not, however, be interpreted as endorsing the failure to exercise good practice in restoring systems or components to OPERABLE status before plant startup.

3/4.0 APPLICABILITY**BASES (Con't)**

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 3.0.4 do not apply because they would delay placing the facility in a lower MODE of operation.

Specifications 4.0.1 through 4.0.5 establish the general requirements applicable to Surveillance Requirements. These requirements are based on the Surveillance Requirements stated in the Code of Federal Regulations, 10 CFR 50.36(c)(3):

"Surveillance requirements are requirements relating to test, calibration, or inspection to ensure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions of operation will be met."

Specification 4.0.1 establishes the requirement that surveillances must be performed during the OPERATIONAL MODES or other conditions for which the requirements of the Limiting Conditions for Operation apply unless otherwise stated in an individual Surveillance Requirement. The purpose of this specification is to ensure that surveillances are performed to verify the operational status of systems and components and that parameters are within specified limits to ensure safe operation of the facility when the plant is in a MODE or other specified condition for which the associated Limiting Conditions for Operation are applicable. Surveillance Requirements do not have to be performed when the facility is in an OPERATIONAL MODE for which the requirements of the associated Limiting Condition for Operation do not apply unless otherwise specified. The Surveillance Requirements associated with a Special Test Exception are only applicable when the Special Test Exception is used as an allowable exception to the requirements of a specification.

Specification 4.0.2 establishes the conditions under which the specified time interval for Surveillance Requirements may be extended. Item a. permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance; e.g., transient conditions or other ongoing surveillance or maintenance activities. Item b. limits the use of the provisions of item a. to ensure that it is not used repeatedly to extend the surveillance interval beyond that specified. The limits of Specification 4.0.2 are based on engineering judgment and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the Surveillance Requirements. These provisions are sufficient to ensure that the reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance interval.

Specification 4.0.3 establishes the failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by the provisions of Specification 4.0.2, as a condition that constitutes a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation. Under the

3/4.0 APPLICABILITYBASES (Con't)

provisions of this specification, systems and components are assumed to be OPERABLE when Surveillance Requirements have been satisfactorily performed within the specified time interval. However, nothing in this provision is to be construed as implying that systems or components are OPERABLE when they are found or known to be inoperable although still meeting the Surveillance Requirements. This specification also clarifies that the ACTION requirements are applicable when Surveillance Requirements have not been completed within the allowed surveillance interval and that the time limits of the ACTION requirements apply from the point in time it is identified that a surveillance has not been performed and not at the time that the allowed surveillance interval was exceeded. Completion of the Surveillance Requirement within the allowable outage time limits of the ACTION requirements restores compliance with the requirements of Specification 4.0.3. However, this does not negate the fact that the failure to have performed the surveillance within the allowed surveillance interval, defined by the provisions of Specification 4.0.2, was a violation of the OPERABILITY requirements of a Limiting Condition for Operation that is subject to enforcement action. Further, the failure to perform a surveillance within the provisions of Specification 4.0.2 is a violation of a Technical Specification requirement and is, therefore, a reportable event under the requirements of 10 CFR 50.73(a)(2)(1)(B) because it is a condition prohibited by the plant's Technical Specifications.

If the allowable outage time limits of the ACTION requirements are less than 24 hours or a shutdown is required to comply with ACTION requirements, e.g., Specification 3.0.3, a 24-hour allowance is provided to permit a delay in implementing the ACTION requirements. This provides an adequate time limit to complete Surveillance Requirements that have not been performed. The purpose of this allowance is to permit the completion of a surveillance before a shutdown is required to comply with ACTION requirements or before other remedial measures would be required that may preclude completion of a surveillance. The basis for this allowance includes consideration for plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, and the safety significance of the delay in completing the required surveillance. This provision also provides a time limit for the completion of Surveillance Requirements that become applicable as a consequence of MODE changes imposed by ACTION requirements and for completing Surveillance Requirements that are applicable when an exception to the requirements of Specification 4.0.4 is allowed. If a surveillance is not completed within the 24-hour allowance, the time limits of the ACTION requirements are applicable at that time. When a surveillance is performed within the 24-hour allowance and the Surveillance Requirements are not met, the time limits of the ACTION requirements are applicable at the time that the surveillance is terminated.

Surveillance Requirements do not have to be performed on inoperable equipment because the ACTION requirements define the remedial measures that apply. However, the Surveillance Requirements have to be met to demonstrate that inoperable equipment has been restored to OPERABLE status.

3/4.0 APPLICABILITY

BASES (Con't)

Specification 4.0.4 establishes the requirement that all applicable surveillances must be met before entry into an OPERATIONAL MODE or other condition of operation specified in the Applicability statement. The purpose of this specification is to ensure that system and component OPERABILITY requirements or parameter limits are met before entry into a MODE or condition for which these systems and components ensure safe operation of the facility. This provision applies to changes in OPERATIONAL MODES or other specified conditions associated with plant shutdown as well as startup.

Under the provisions of this specification, the applicable Surveillance Requirements must be performed within the specified surveillance interval to ensure that the Limiting Conditions for Operation are met during initial plant startup or following a plant outage.

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 4.0.4 do not apply because this would delay placing the facility in a lower MODE of operation.

Specification 4.0.5 establishes the requirement that inservice inspection of ASME Code Class 1, 2, and 3 components and inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. These requirements apply except when relief has been provided in writing by the Commission.

This specification includes a clarification of the frequencies for performing the inservice inspection and testing activities required by Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda. This clarification is provided to ensure consistency in surveillance intervals throughout the Technical Specifications and to remove any ambiguities relative to the frequencies for performing the required inservice inspection and testing activities.

Under the terms of this specification, the more restrictive requirements of the Technical Specifications take precedence over the ASME Boiler and Pressure Vessel Code and applicable Addenda. The requirements of Specification 4.0.4 to perform surveillance activities before entry into an OPERATIONAL MODE or other specified condition takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows pumps and valves to be tested up to one week after return to normal operation. The Technical Specification definition of OPERABLE does not allow a grace period before a component, that is not capable of performing its specified function, is declared inoperable and takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows a valve to be incapable of performing its specified function for up to 24 hours before being declared inoperable.

Attachment 3

NRC Memorandum, "Summary of Meeting Held on September 17, 1987 Relating to
Generic Letter 87-09," dated October 20, 1987

NRC 6 '87

Sech Specs



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20548

OCT 20 1987

DOCKET NOS: 50-325/324 & 50-400

LICENSEE: Carolina Power & Light Company

FACILITY: Shearon Harris, Unit 1

SUBJECT: SUMMARY OF MEETING HELD ON SEPTEMBER 17, 1987 RELATING TO GENERIC LETTER 87-09

A meeting was held with representatives of the Carolina Power & Light Company (CP&L) in Bethesda, MD. on September 17, 1987 to discuss Generic Letter 87-09, "Sections 3.0 and 4.0 of the Standard Technical Specifications (STS) on the applicability of Limiting Conditions for Operation and Surveillance Requirements" dated June 4, 1987, as it relates to the Shearon Harris Unit 1 and the Brunswick Units 1 & 2 nuclear power plants. A list of attendees is attached.

CP&L expressed concern about the potential for misinterpretation of the sentence underlined below, for ease of reference, and which appears on page 8 3/4.0-1 of enclosure 3 to Generic Letter 87-09.

"Specification 3.0.1

...it is not intended that the shutdown ACTION requirements be used as an operational convenience which permits (routine) voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable."

The concern expressed is that it could prohibit CP&L from going voluntarily into a Limiting Condition for Operation (LCO) in certain justifiable instances. An example of such an instance would be if a small leak developed in a pump seal which in itself would not render the pump inoperable but had the potential for rendering the pump inoperable at a future date. CP&L would like the option of voluntarily entering a LCO by isolating the pump and making the required repairs without being cited for such action. The NRC staff noted that the underlined section of the Bases for Specification 3.0.1, noted above, would not apply to the example cited by CP&L since it is not a case in which redundant systems would be out of service. The staff noted that in addition to the two basic types of action requirements that are noted in the second paragraph of the Bases for Specification 3.0.1, a third type would define time limits for directly placing the plant in a shutdown condition. It was noted that the sentence in question, underlined above, that was a concern to CP&L was intended to apply to this type of shutdown action requirement. The staff noted that a similar sentence is included in the Bases for Specification 3.0.3. In both cases the point of clarification is that the last echelon of defense should not be removed from service such that this would invoke a prompt shutdown action requirement, in lieu of other alternatives that would not result in redundant systems being out of service simultaneously.

8710220333 871020
PDR ADOCK 05000324
PDR

CP&L asked for a clarification of when a missed surveillance is reported under the LER Rule. The staff stated that if a missed surveillance is not performed within the allowance for extending the surveillance interval as provided by Specification 4.0.2, it would be reportable. This is consistent with the clarification of the LER Rule that is provided in NUREG-1022, Supplement #1.

CP&L asked if there was any significance between the words "failure to meet" and the words "noncompliance with" which is currently in Specification 4.0.3 of Generic letter B7-09. The staff stated they both mean the same and that it does not impose any new requirement.

Bart C. Buckley, Senior Project Manager
Project Directorate 11-1
Division of Reactor Projects 1/11

cc: See next page

DISTRIBUTION:
See attached list

PM:PP21:DRPR
BBuckley/sh
10/18/87
j

11/19/87
L. Adams
10/19/87

Attachment 4

Inspection Manual Part 9900 Technical Guidance document, "Standard Technical Specifications (STS) Section 3.0.3 Limiting Conditions for Operation"



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20545

NRC INSPECTION MANUAL

ILRB

PART 9900: TECHNICAL GUIDANCE

STANDARD TECHNICAL SPECIFICATIONS STS SECTION 3.0.3 LIMITING CONDITIONS FOR OPERATION

A. PURPOSE

To provide guidance on Standard Technical Specifications (STS) Section 3.0.3 as it relates to limiting conditions for operation (LCO).

B. BACKGROUND

Regions III and V have reported the incorrect use of the provisions of STS Section 3.0.3 by licensees. As an example, Technical Specification 3.7.A.5.b for Dresden and Quad Cities, and similar specifications for other plants, establish the containment oxygen concentration requirements during the 24 hours prior to a shutdown, and after the reactor mode switch has been placed in the run position on startup. If the oxygen-allowable concentration exceeds the technical specification limit for more than 24 hours prior to shutdown or for more than 24 hours after the reactor mode switch has been placed in the run position on startup, the plant is in violation of the LCO and should be shut down in accordance with the LCO. However, the licensees proposed to enter LCO 3.0.3 at the end of the 24-hour period and use the requirements of LCO 3.0.3 to have an additional 12 hours to shut down the plant. Technical Specification 3.7.A.5.b, defines the two conditions for which oxygen concentration can be exceeded. For either condition, an explicit 24-hour time limit for shutting down is provided. There are no other circumstances which are not accounted for, and STS 3.0.3 does not apply.

The basic information provided to Regions III and V concerning the use of STS 3.0.3 is discussed in the section below.

C. DISCUSSION

LCO as defined in STS 3.0.3 is not intended to be used as an operational convenience which permits redundant safety systems to be out of service for a limited period of time. Its intended purpose is to provide guidance on the time limits for an "orderly" shutdown when the individual LCO or ACTION statements in other specifications cannot be complied with. Voluntary entry into LCO 3.0.3 deliberately removes the last line of defense against potentially harmful events. Doing so allows removal of a system from service when the redundant system is already inoperable. An action like this would show a disregard for plant safety and is unacceptable. It also should be emphasized that removal of a system from service is justified only for test, maintenance, or repair purposes.

Issue Date: 08/31/87

Model Application for Adoption of TSTF-529

[DATE]

10 CFR 50.90

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

SUBJECT: PLANT NAME
DOCKET NO. 50-[xxx]
APPLICATION TO REVISE TECHNICAL SPECIFICATIONS TO
ADOPT TSTF-529, "CLARIFY USE AND APPLICATION RULES"

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, [LICENSEE] is submitting a request for an amendment to the Technical Specifications (TS) for [PLANT NAME, UNIT NOS.].

The proposed amendment would modify TS requirements in Section 1.3 and Section 3.0 regarding Limiting Condition for Operation (LCO) and Surveillance Requirement (SR) usage. These changes are consistent with NRC-approved Technical Specifications Task Force (TSTF) Traveler TSTF-529, "Clarify Use and Application Rules." ~~The availability of this TS improvement was announced in the Federal Register on [Date] ([] FR []) as part of the consolidated line item improvement process (CLIP).~~

Attachment 1 provides a description and assessment of the proposed changes.

Attachment 2 provides the existing TS pages marked up to show the proposed changes.

Attachment 3 provides revised (clean) TS pages.

Attachment 4 provides, for information only, existing TS Bases pages marked to show the proposed changes.

Approval of the proposed amendment is requested by [date]. Once approved, the amendment shall be implemented within [] days.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated [STATE] Official.

[In accordance with 10 CFR 50.30(b), a license amendment request must be executed in a signed original under oath or affirmation. This can be accomplished by attaching a notarized affidavit confirming the signature authority of the signatory, or by including the following statement in the cover letter: "I declare under penalty of perjury that the foregoing is true and correct. Executed on (date)." The alternative statement is pursuant to 28 USC 1746. It does not require notarization.]

If you should have any questions regarding this submittal, please contact [NAME, TELEPHONE NUMBER].

Sincerely,

[Name, Title]

- Attachments:
1. Description and Assessment
 2. Proposed Technical Specifications Changes (Mark-Up)
 3. Revised Technical Specifications Pages
 4. Proposed Technical Specifications Bases Changes (Mark-Up)

[The model application does not include these attachments, which will be added by the licensee.]

cc: NRC Project Manager
NRC Regional Office
NRC Resident Inspector
State Contact

ATTACHMENT 1 - DESCRIPTION AND ASSESSMENT

1.0 DESCRIPTION

The proposed change revises Section 1.3, "Completion Times," and Section 3.0, "LCO Applicability" of the Technical Specifications (TS) to clarify the use and application of the TS usage rules, as described below:

- Section 1.3 is revised to clarify "discovery."
- Section 1.3 to revised to discuss exceptions to starting the Completion Time at condition entry.
- Limiting Condition for Operation (LCO) 3.0.4.b is revised to clarify that LCO 3.0.4.a, LCO 3.0.4.b, and LCO 3.0.4.c are independent options.
- Surveillance Requirement (SR) 3.0.3 is revised to allow application of SR 3.0.3 when an SR has not been previously performed and to clarify the application of SR 3.0.3.

2.0 ASSESSMENT

2.1 Applicability of ~~Published~~-Safety Evaluation

[LICENSEE] has reviewed the ~~model~~-safety evaluation *for TSTF-529 provided to the Technical Specifications Task Force in a letter dated [DATE] as part of the Federal Register Notice of Availability.* This review included a review of the NRC staff's evaluation, as well as the information provided in TSTF-529. [As described in the subsequent paragraphs,][LICENSEE] has concluded that the justifications presented in the TSTF-529 proposal and the ~~model~~-safety evaluation prepared by the NRC staff are applicable to [PLANT, UNIT NOS.] and justify this amendment for the incorporation of the changes to the [PLANT] TS.

2.2 Optional Changes and Variations

[LICENSEE is not proposing any variations ~~or deviations~~ from the TS changes described in the TSTF-529 or the applicable parts of the NRC staff's ~~model~~-safety evaluation dated [DATE].] [LICENSEE is proposing the following variations from the TS changes described in the TSTF-529 or the applicable parts of the NRC staff's ~~model~~-safety evaluation dated [DATE]. *These variations do not affect the applicability of TSTF-529 or the NRC staff's safety evaluation to the proposed license amendment.*]

----- REVIEWER'S NOTE-----
 Omission of one or more changes proposed in TSTF-529 is an acceptable variation from the Traveler.

[The [PLANT] TS utilize different [numbering][and][titles] than the Standard TS on which TSTF-529 was based. Specifically, [describe differences between the plant-

specific TS numbering and/or titles and the TSTF-529 numbering and titles.] These differences are administrative and do not affect the applicability of TSTF-529 to the [PLANT] TS.]

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration ~~Determination~~ Analysis

[LICENSEE] requests adoption of TSTF-529, "Clarify Use and Application Rules," that is an approved change to the standard technical specifications (STS), into the [PLANT NAME, UNIT NOS] technical specifications (TS). The proposed change revises Section 1.3, "Completion Times," and Sections 3.0, "LCO Applicability" and "SR Applicability" of the Technical Specifications to clarify the use and application of the TS usage rules and revise the application of Surveillance Requirement (SR) 3.0.3. Section 1.3 is modified to clarify the concept of "discovery" that a Limiting Condition for Operation (LCO) is not met and to describe existing exceptions to the start of Completion Times in the TS. An editorial change is made to LCO 3.0.4.b to clarify that LCO 3.0.4.a, LCO 3.0.4.b, and LCO 3.0.4.c are independent options. SR 3.0.3 is revised to allow application of SR 3.0.3 when an SR has not been previously performed.

[LICENSEE] has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No.

The proposed changes to Section 1.3 and LCO 3.0.4 have no effect on the requirement for systems to be Operable and have no effect on the application of TS actions. The proposed change to SR 3.0.3 states that the allowance may only be used when there is a reasonable expectation the surveillance will be met when performed. Since the proposed changes does not significantly affect system Operability, the proposed change will have no significant effect on the initiating events for accidents previously evaluated and will have no significant effect on the ability of the systems to mitigate accidents previously evaluated.

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

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

Response: No.

The proposed change to the TS usage rules does not affect the design or function of any plant systems. The proposed change does not change the Operability

requirements for plant systems or the actions taken when plant systems are not operable.

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

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

Response: No.

The proposed change clarifies the application of Section 1.3 and LCO 3.0.4 and does not result in changes in plant operation. SR 3.0.3 is revised to allow application of SR 3.0.3 when an SR has not been previously performed if there is a reasonable expectation that the SR will be met when performed. This expands the use of SR 3.0.3 while ensuring the affected system is capable of performing its safety function. As a result, plant safety is either improved or unaffected.

Therefore, it is concluded that this change does not involve a significant reduction in a margin of safety.

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

4.0 ENVIRONMENTAL EVALUATION

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

Improved Technical Specifications Mark-Up

1.0 USE AND APPLICATION

1.3 Completion Times

PURPOSE	The purpose of this section is to establish the Completion Time convention and to provide guidance for its use.
BACKGROUND	Limiting Conditions for Operation (LCOs) specify minimum requirements for ensuring safe operation of the unit. The ACTIONS associated with an LCO state Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and Completion Time(s).
DESCRIPTION	<p>The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO.</p> <p><i>Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered. The "otherwise specified" exceptions are varied, such as a Required Action Note or Surveillance Requirement Note that provides an alternative time to perform specific tasks, such as testing, without starting the Completion Time. While utilizing the Note, should a Condition be applicable for any reason not addressed by the Note, the Completion Time begins. Should the time allowance in the Note be exceeded, the Completion Time begins at that point. The exceptions may also be incorporated into the Completion Time. For example, LCO 3.8.1, "AC Sources - Operating," Required Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator, inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case the Completion Time does not begin until the conditions in the Completion Time are satisfied.</i></p> <p>Required Actions must be completed prior to the expiration of the specified Completion Time. An ACTIONS Condition remains in effect and the Required Actions apply until the Condition no longer exists or the unit is not within the LCO Applicability.</p> <p>If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time. When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the time of</p>

discovery of the situation that required entry into the Condition, *unless otherwise specified*.

Once a Condition has been entered, subsequent trains, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition, unless specifically stated. The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition, *unless otherwise specified*.

However, when a subsequent train, subsystem, component, or variable, expressed in the Condition, is discovered to be inoperable or not within limits, the Completion Time(s) may be extended. To apply this Completion Time extension, two criteria must first be met. The subsequent inoperability:

- a. Must exist concurrent with the first inoperability and
- b. Must remain inoperable or not within limits after the first inoperability is resolved.

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, LCO 3.0.7, LCO 3.0.8, and LCO 3.0.9.

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 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 unit, as applicable, in:

- a. MODE 3 within 7 hours,
- b. MODE 4 within 13 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 only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (~~exceptions to this Specification are stated in the individual Specifications~~); or

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 greater. This delay period is permitted to allow performance of the Surveillance. *The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed.* A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the 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.

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 3.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

LCOs	LCO 3.0.1 through LCO 3.0.9 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 unit is in the MODES or other specified conditions of the Applicability statement of each Specification).
LCO 3.0.2	<p>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, <i>unless otherwise specified</i>. 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:</p> <ul style="list-style-type: none">a. Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification andb. Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified. <p>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 place the unit 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.) 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.</p> <p>Completing the Required Actions is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.</p>

BASES

LCO 3.0.2 (continued)

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."

The Completion Times of the Required Actions are also applicable when a system or component is removed from service intentionally. Reasons for intentionally relying on the ACTIONS include, but are not limited to, performance of Surveillances, preventive maintenance, corrective maintenance, or investigation of operational problems. Entering ACTIONS for these reasons must be done in a manner that does not compromise safety. Intentional entry into ACTIONS should not be made for operational convenience. Additionally, if intentional entry into ACTIONS would result in redundant equipment being inoperable, alternatives should be used instead. Doing so limits the time both subsystems/trains of a safety function are inoperable and limits the time conditions exist which may result in LCO 3.0.3 being entered. Individual Specifications may specify a time limit for performing 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 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.

LCO 3.0.3

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

- a. An associated Required Action and Completion Time is not met and no other Condition applies or
- b. The condition of the unit 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 unit. 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.

BASES

LCO 3.0.3 (continued)

This Specification delineates the time limits for placing the unit 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 unit 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 ~~enter 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 unit, assuming that only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the Reactor 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.

A unit 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. The LCO is no longer applicable,*
- ~~bc.~~ A Condition exists for which the Required Actions have now been performed, or
- ed.* 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 LCO 3.0.3 allow 37 hours for the unit to be in MODE 5 when a shutdown is required during MODE 1 operation. If the unit is in a lower MODE of operation when a shutdown is required, the time limit for ~~entering reaching~~ the next lower MODE applies. If a lower MODE is ~~reached-entered~~ in less time than allowed, however, the total allowable time to ~~reach-enter~~ MODE 5, or other applicable MODE, is not reduced. For example, if MODE 3 is ~~reached-entered~~ in 2 hours, then the time

allowed for ~~reaching-entering~~ MODE 4 is the next 11 hours, because the total time for ~~reaching-entering~~

BASES

LCO 3.0.3 (continued)

MODE 4 is not reduced from the allowable limit of 13 hours. Therefore, if remedial measures are completed that would permit a return to MODE 1, a penalty is not incurred by having to ~~reach-enter~~ 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 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 shutdown, in accordance with LCO 3.0.3, would not provide appropriate remedial measures for the associated condition of the unit. An example of this is in LCO 3.7.14, "Fuel Storage Pool Water Level." LCO 3.7.14 has an Applicability of "During movement of irradiated fuel assemblies in fuel storage 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, 3, or 4, there is no safety benefit to be gained by placing the unit in a shutdown condition. The Required Action of LCO 3.7.14 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.

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 allows placing the unit in a MODE or other specified condition stated in that Applicability (e.g., the Applicability desired to be entered) when unit conditions are such that the requirements of the LCO would not be met, in accordance with *either* LCO 3.0.4.a, LCO 3.0.4.b, or LCO 3.0.4.c.

LCO 3.0.4.a allows entry into a MODE or other specified condition in the Applicability with the LCO not met when the associated ACTIONS to be entered *following entry into* ~~permit continued operation in~~ the MODE or other specified condition in the Applicability *will permit continued operation within the MODE or other specified condition* for an unlimited period of time. Compliance with ~~ACTIONS Required Actions~~ that permit continued operation of the unit for an unlimited period of time in a MODE or other specified condition provides an acceptable level of safety for continued operation. This is without regard to the status of the unit before or after the MODE change. Therefore, in such cases, entry into a MODE or other specified condition in the Applicability may be made *and the*

*Required Actions followed after entry into the Applicability in accordance
with the provisions of the Required Actions.*

BASES

LCO 3.0.4 (continued)

For example, LCO 3.0.4.a may be used when the Required Action to be entered states that an inoperable instrument channel must be placed in the tripped condition within the Completion Time. Transition into a MODE or other specified in condition in the Applicability may be made in accordance with LCO 3.0.4 and the channel is subsequently placed in the tripped condition within the Completion Time, which begins when the Applicability is entered. If the instrument channel cannot be placed in the tripped condition and the subsequent default ACTION ("Required Action and associated Completion Time not met") allows the OPERABLE train to be placed in operation, use of LCO 3.0.4.a is acceptable because the subsequent ACTIONS to be entered following entry into the MODE include ACTIONS (place the OPERABLE train in operation) that permit safe plant operation for an unlimited period of time in the MODE or other specified condition to be entered.

LCO 3.0.4.b allows entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate.

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

requirements of the LCO would be met prior to the expiration of ACTIONS Completion Times that would require exiting the Applicability.

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

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

BASES

LCO 3.0.4 (continued)

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

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

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.

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. In this context, a unit shutdown is defined as a change in MODE or other specified condition in the Applicability associated with transitioning from MODE 1 to MODE 2, MODE 2 to MODE 3, MODE 3 to MODE 4, and MODE 4 to MODE 5.

BASES

LCO 3.0.4 (continued)

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

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 3.0.1. Therefore, utilizing LCO 3.0.4 is not a violation of SR 3.0.1 or SR 3.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

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 either:

- 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. *LCO 3.0.5 should not be used in lieu of other practicable alternatives that comply with Required Actions and that do not require changing the MODE or other specified conditions in the Applicability in order to demonstrate equipment is OPERABLE. LCO 3.0.5 is not intended to be used repeatedly.*

An example of demonstrating equipment is OPERABLE with the Required Actions not met is opening a manual valve that was closed to comply with Required Actions to isolate a flowpath with excessive Reactor Coolant System (RCS) Pressure Isolation Valve (PIV) leakage in order to perform testing to demonstrate that RCS PIV leakage is now within limit.

Examples of demonstrating equipment OPERABILITY include instances in which it is necessary to take an inoperable channel or trip system out of a tripped condition that was directed by a Required Action, if there is no Required Action Note for this purpose. An example of verifying OPERABILITY of equipment removed from service is taking a tripped

channel out of the tripped condition to permit the logic to function and indicate the appropriate response during performance of required testing on the inoperable channel. Examples ~~An example~~ of demonstrating the OPERABILITY of other equipment ~~are~~ ~~is~~ taking an inoperable channel or trip system out of the tripped condition 1) to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system, or 2). ~~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.

The administrative controls in LCO 3.0.5 apply in all cases to systems or components in Chapter 3 of the Technical Specifications, as long as the testing could not be conducted while complying with the Required Actions. This includes the realignment or repositioning of redundant or alternate equipment or trains previously manipulated to comply with ACTIONS, as well as equipment removed from service or declared inoperable to comply with ACTIONS.

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 unit 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 examples of this process are:

- a. Emergency feedwater (EFW) pump turbine maintenance during refueling that requires testing at steam pressures > 800 psi. However, if other appropriate testing is satisfactorily completed, the EFW 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 EFW pump testing.
- b. High pressure injection (HPI) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with HPI 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. The requirements of regulations take precedence over the TS. An example of where SR 3.0.2 does not apply is in the Containment Leakage Rate Testing Program. This program establishes testing requirements and Frequencies in accordance with the requirements of regulations. The TS cannot in and of themselves extend a test interval specified in the regulations.

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-performed~~ within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater, 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 ~~perform complete~~ Surveillances that have been missed. This delay period permits the ~~completion-performance~~ of a Surveillance before complying with Required Actions or other remedial measures that might preclude ~~performance completion~~ of the Surveillance.

The basis for this delay period includes consideration of unit 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 conditions, operating situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specified Frequency to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

SR 3.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

SR 3.0.3 is only applicable if there is a reasonable expectation the associated equipment is OPERABLE or that variables are within limits, and it is expected that the Surveillance will be met when performed. Many factors should be considered, such as the period of time since the Surveillance was last performed, or whether the Surveillance, or a portion thereof, has ever been performed, and any other indications, tests, or activities that might support the expectation that the Surveillance will be met when performed. An example of the use of SR 3.0.3 would be a relay contact that was not tested as required in accordance with a particular SR, but previous successful performances of the SR included the relay contact; the adjacent, physically connected relay contacts were tested during the SR performance; the subject relay contact has been tested by another SR; or historical operation of the subject relay contact has been successful. It is not sufficient to infer the behavior of the associated equipment from the performance of similar equipment. The rigor of determining whether there is a reasonable expectation a Surveillance will be met when performed should increase based on the length of time since the last performance of the Surveillance. If the Surveillance has been performed recently, a review of the Surveillance

history and equipment performance may be sufficient to support a reasonable expectation that the Surveillance will be met when performed. For Surveillances that have not been performed for a long period or that have never been performed, a rigorous evaluation based on objective evidence should provide a high degree of confidence that the equipment is OPERABLE. The evaluation should be documented in sufficient detail to allow a knowledgeable individual to understand the basis for the determination.

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 ~~repeatedly as an operational convenience~~ to extend Surveillance intervals. While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." This Regulatory Guide addresses consideration of temporary and

1.0 USE AND APPLICATION

1.3 Completion Times

PURPOSE	The purpose of this section is to establish the Completion Time convention and to provide guidance for its use.
BACKGROUND	Limiting Conditions for Operation (LCOs) specify minimum requirements for ensuring safe operation of the unit. The ACTIONS associated with an LCO state Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and Completion Time(s).
DESCRIPTION	<p>The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO.</p> <p><i>Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered. The "otherwise specified" exceptions are varied, such as a Required Action Note or Surveillance Requirement Note that provides an alternative time to perform specific tasks, such as testing, without starting the Completion Time. While utilizing the Note, should a Condition be applicable for any reason not addressed by the Note, the Completion Time begins. Should the time allowance in the Note be exceeded, the Completion Time begins at that point. The exceptions may also be incorporated into the Completion Time. For example, LCO 3.8.1, "AC Sources - Operating," Required Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator, inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case the Completion Time does not begin until the conditions in the Completion Time are satisfied.</i></p> <p>Required Actions must be completed prior to the expiration of the specified Completion Time. An ACTIONS Condition remains in effect and the Required Actions apply until the Condition no longer exists or the unit is not within the LCO Applicability.</p> <p>If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time. When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the time of</p>

discovery of the situation that required entry into the Condition, *unless otherwise specified*.

Once a Condition has been entered, subsequent trains, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition, unless specifically stated. The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition, *unless otherwise specified*.

However, when a subsequent train, subsystem, component, or variable expressed in the Condition is discovered to be inoperable or not within limits, the Completion Time(s) may be extended. To apply this Completion Time extension, two criteria must first be met. The subsequent inoperability:

- a. Must exist concurrent with the first inoperability and

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, LCO 3.0.7, LCO 3.0.8, and LCO 3.0.9.

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 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 unit, as applicable, in:

- a. MODE 3 within 7 hours,
- b. MODE 4 within 13 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 only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; (exceptions to this Specification are stated in the individual Specifications); or

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 greater. This delay period is permitted to allow performance of the Surveillance. *The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed.* A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the 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.

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 3.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

LCOs	LCO 3.0.1 through LCO 3.0.9 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 unit is in the MODES or other specified conditions of the Applicability statement of each Specification).
LCO 3.0.2	<p>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, <i>unless otherwise specified</i>. 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:</p> <ol style="list-style-type: none"> Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification and Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified. <p>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 place the unit 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.) 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.</p> <p>Completing the Required Actions is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.</p>

BASES

LCO 3.0.2 (continued)

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."

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 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 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.

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 unit 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 unit. 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.

BASES

LCO 3.0.3 (continued)

This Specification delineates the time limits for placing the unit 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 unit 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 ~~enter 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 unit, assuming that only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the Reactor 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.

A unit 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. The LCO is no longer applicable,*
- ~~b-c.~~ A Condition exists for which the Required Actions have now been performed, or
- ~~c-d.~~ 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 LCO 3.0.3 allow 37 hours for the unit to be in MODE 5 when a shutdown is required during MODE 1 operation. If the unit is in a lower MODE of operation when a shutdown is required, the time limit for ~~reaching~~ entering the next lower MODE applies. If a lower MODE is ~~reached~~ entered in less time than allowed, however, the total allowable time to ~~reach~~ enter MODE 5, or other applicable MODE, is not reduced. For example, if MODE 3 is ~~reached~~ entered in 2 hours, then the time allowed for

~~reaching~~ing MODE 4 is the next 11 hours, because the total time for
~~reaching~~ing

BASES

LCO 3.0.3 (continued)

MODE 4 is not reduced from the allowable limit of 13 hours. Therefore, if remedial measures are completed that would permit a return to MODE 1, a penalty is not incurred by having to ~~reacher~~ 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 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 shutdown, in accordance with LCO 3.0.3, would not provide appropriate remedial measures for the associated condition of the unit. An example of this is in LCO 3.7.15, "Fuel Storage Pool Water Level." LCO 3.7.15 has an Applicability of "During movement of irradiated fuel assemblies in the fuel storage pool." Therefore, this LCO can be applicable in any or all MODES. If the LCO and the Required Actions of LCO 3.7.15 are not met while in MODE 1, 2, or 3, there is no safety benefit to be gained by placing the unit in a shutdown condition. The Required Action of LCO 3.7.15 of "Suspend movement of irradiated fuel assemblies in the 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.

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 allows placing the unit in a MODE or other specified condition stated in that Applicability (e.g., the Applicability desired to be entered) when unit conditions are such that the requirements of the LCO would not be met, in accordance with *either* LCO 3.0.4.a, LCO 3.0.4.b, or LCO 3.0.4.c.

LCO 3.0.4.a allows entry into a MODE or other specified condition in the Applicability with the LCO not met when the associated ACTIONS to be entered ~~following entry into permit continued operation in~~ the MODE or other specified condition in the Applicability *will permit continued operation within the MODE or other specified condition* for an unlimited period of time. Compliance with ~~ACTIONS Required Actions~~ that permit continued operation of the unit for an unlimited period of time in a MODE or other specified condition provides an acceptable level of safety for continued operation. This is without regard to the status of the unit before or after the MODE change. Therefore, in such cases, entry into a MODE or other specified condition in the Applicability may be made *and the*

Required Actions followed after entry into the Applicability in accordance with the provisions of the Required Actions.

BASES

LCO 3.0.4 (continued)

For example, LCO 3.0.4.a may be used when the Required Action to be entered states that an inoperable instrument channel must be placed in the tripped condition within the Completion Time. Transition into a MODE or other specified in condition in the Applicability may be made in accordance with LCO 3.0.4 and the channel is subsequently placed in the tripped condition within the Completion Time, which begins when the Applicability is entered. If the instrument channel cannot be placed in the tripped condition and the subsequent default ACTION ("Required Action and associated Completion Time not met") allows the OPERABLE train to be placed in operation, use of LCO 3.0.4.a is acceptable because the subsequent ACTIONS to be entered following entry into the MODE include ACTIONS (place the OPERABLE train in operation) that permit safe plant operation for an unlimited period of time in the MODE or other specified condition to be entered.

LCO 3.0.4.b allows entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate.

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

requirements of the LCO would be met prior to the expiration of ACTIONS Completion Times that would require exiting the Applicability.

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

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

BASES

LCO 3.0.4 (continued)

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

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

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.

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. In this context, a unit shutdown is defined as a change in MODE or other specified condition in the Applicability associated with transitioning from MODE 1 to MODE 2, MODE 2 to MODE 3, MODE 3 to MODE 4, and MODE 4 to MODE 5.

BASES

LCO 3.0.4 (continued)

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

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 3.0.1. Therefore, utilizing LCO 3.0.4 is not a violation of SR 3.0.1 or SR 3.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

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. *LCO 3.0.5 should not be used in lieu of other practicable alternatives that comply with Required Actions and that do not require changing the MODE or other specified conditions in the Applicability in order to demonstrate equipment is OPERABLE. LCO 3.0.5 is not intended to be used repeatedly.*

An example of demonstrating equipment is OPERABLE with the Required Actions not met is opening a manual valve that was closed to comply with Required Actions to isolate a flowpath with excessive Reactor Coolant System (RCS) Pressure Isolation Valve (PIV) leakage in order to perform testing to demonstrate that RCS PIV leakage is now within limit.

~~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.~~

Examples of demonstrating equipment OPERABILITY include instances in which it is necessary to take an inoperable channel or trip system out of a tripped condition that was directed by a Required Action, if there is no Required Action Note for this purpose. An example of verifying OPERABILITY of equipment removed from service is taking a tripped channel out of the tripped condition to permit the logic to function and indicate the appropriate response during performance of required testing on the inoperable channel. Examples ~~An example~~ of demonstrating the OPERABILITY of other equipment ~~are~~ taking an inoperable channel or trip system out of the tripped condition 1) to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system, or 2). ~~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.

The administrative controls in LCO 3.0.5 apply in all cases to systems or components in Chapter 3 of the Technical Specifications, as long as the testing could not be conducted while complying with the Required Actions. This includes the realignment or repositioning of redundant or alternate equipment or trains previously manipulated to comply with ACTIONS, as well as equipment removed from service or declared inoperable to comply with ACTIONS.

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 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 examples of this process are:

- 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. High pressure safety injection (HPI) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with HPI 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).

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

BASES

SR 3.0.2 (continued)

25% extension of the interval specified in the Frequency does not apply. These exceptions are stated in the individual Specifications. The requirements of regulations take precedence over the TS. An example of where SR 3.0.2 does not apply is in the Containment Leakage Rate Testing Program. This program establishes testing requirements and Frequencies in accordance with the requirements of regulations. The TS cannot in and of themselves extend a test interval specified in the regulations. 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-performed~~ within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater, 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 adequate time to ~~perform complete~~ Surveillances that have been missed. This delay period permits the ~~performance completion~~ of a Surveillance before complying with Required Actions or other remedial measures that might preclude ~~performance completion~~ of the Surveillance.

The basis for this delay period includes consideration of unit 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.

BASES

SR 3.0.3 (continued)

When a Surveillance with a Frequency based not on time intervals, but upon specified unit conditions, operating situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specified Frequency to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

SR 3.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

SR 3.0.3 is only applicable if there is a reasonable expectation the associated equipment is OPERABLE or that variables are within limits, and it is expected that the Surveillance will be met when performed. Many factors should be considered, such as the period of time since the Surveillance was last performed, or whether the Surveillance, or a portion thereof, has ever been performed, and any other indications, tests, or activities that might support the expectation that the Surveillance will be met when performed. An example of the use of SR 3.0.3 would be a relay contact that was not tested as required in accordance with a particular SR, but previous successful performances of the SR included the relay contact; the adjacent, physically connected relay contacts were tested during the SR performance; the subject relay contact has been tested by another SR; or historical operation of the subject relay contact has been successful. It is not sufficient to infer the behavior of the associated equipment from the performance of similar equipment. The rigor of determining whether there is a reasonable expectation a Surveillance will be met when performed should increase based on the length of time since the last performance of the Surveillance. If the Surveillance has been performed recently, a review of the Surveillance history and equipment performance may be sufficient to support a reasonable expectation that the Surveillance will be met when performed. For Surveillances that have not been performed for a long period or that have never been performed, a rigorous evaluation based on objective evidence should provide a high degree of confidence that the equipment is OPERABLE. The evaluation should be documented in sufficient detail to allow a knowledgeable individual to understand the basis for the determination.

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 ~~repeatedly as an operational convenience~~ to extend Surveillance intervals. While up to 24 hours or the

limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant shutdown. The missed Surveillance should be treated as an emergent condition as discussed in the Regulatory Guide. The risk evaluation may use quantitative, qualitative, or blended methods. The degree of depth and rigor of the evaluation should be commensurate with the importance of the component. Missed Surveillances for important components should be analyzed quantitatively. If the results of the risk evaluation determine the risk increase is significant, this evaluation should be used to determine the safest course of action. All missed Surveillances will be placed in the licensee's Corrective Action Program.

1.0 USE AND APPLICATION

1.3 Completion Times

PURPOSE	The purpose of this section is to establish the Completion Time convention and to provide guidance for its use.
BACKGROUND	Limiting Conditions for Operation (LCOs) specify minimum requirements for ensuring safe operation of the unit. The ACTIONS associated with an LCO state Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and Completion Time(s).
DESCRIPTION	<p>The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO.</p> <p><i>Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered. The "otherwise specified" exceptions are varied, such as a Required Action Note or Surveillance Requirement Note that provides an alternative time to perform specific tasks, such as testing, without starting the Completion Time. While utilizing the Note, should a Condition be applicable for any reason not addressed by the Note, the Completion Time begins. Should the time allowance in the Note be exceeded, the Completion Time begins at that point. The exceptions may also be incorporated into the Completion Time. For example, LCO 3.8.1, "AC Sources - Operating," Required Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator, inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case the Completion Time does not begin until the conditions in the Completion Time are satisfied.</i></p> <p>Required Actions must be completed prior to the expiration of the specified Completion Time. An ACTIONS Condition remains in effect and the Required Actions apply until the Condition no longer exists or the unit is not within the LCO Applicability.</p> <p>If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time. When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the time of</p>

discovery of the situation that required entry into the Condition, *unless otherwise specified*.

Once a Condition has been entered, subsequent trains, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition, unless specifically stated. The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition, *unless otherwise specified*.

However, when a subsequent train, subsystem, component, or variable expressed in the Condition is discovered to be inoperable or not within limits, the Completion Time(s) may be extended. To apply this Completion Time extension, two criteria must first be met. The subsequent inoperability:

- a. Must exist concurrent with the first inoperability and
- b. Must remain inoperable or not within limits after the first inoperability is resolved.

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, LCO 3.0.7, LCO 3.0.8, and LCO 3.0.9.

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 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 unit, as applicable, in:

- a. MODE 3 within 7 hours,
- b. [MODE 4 within 13] 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 only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
 - b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; (exceptions to this Specification are stated in the individual Specifications); or
 - c. When an allowance is stated in the individual value, parameter, or other Specification.
-

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 greater. This delay period is permitted to allow performance of the Surveillance. *The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed.* A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the 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.

B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

LCOs	LCO 3.0.1 through LCO 3.0.9 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 unit is in the MODES or other specified conditions of the Applicability statement of each Specification).
LCO 3.0.2	<p>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, <i>unless otherwise specified</i>. 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:</p> <ol style="list-style-type: none"> Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification and Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified. <p>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 place the unit 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.) 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.</p> <p>Completing the Required Actions is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.</p>

BASES

LCO 3.0.2 (continued)

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."

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 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 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.

LCO 3.0.3

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

- a. An associated Required Action and Completion Time is not met and no other Condition applies or
- b. The condition of the unit 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 unit. 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.

BASES

LCO 3.0.3 (continued)

This Specification delineates the time limits for placing the unit 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 unit 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 ~~enter 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 unit, assuming that only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the Reactor 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.

A unit 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. The LCO is no longer applicable,*
- ~~cb.~~ A Condition exists for which the Required Actions have now been performed, or
- de.* 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 LCO 3.0.3 allow 37 hours for the unit to be in MODE 5 when a shutdown is required during MODE 1 operation. If the unit is in a lower MODE of operation when a shutdown is required, the time limit for ~~reacher~~ entering the next lower MODE applies. If a lower MODE is ~~reacher~~ entered in less time than allowed, however, the total allowable time to ~~reacher~~

BASES

LCO 3.0.3 (continued)

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 hours, because the total time for *reaching* MODE 4 is not reduced from the allowable limit of 13 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 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 shutdown, in accordance with LCO 3.0.3, would not provide appropriate remedial measures for the associated condition of the unit. An example of this is in LCO 3.7.16, "Fuel Storage Pool Water Level." LCO 3.7.16 has an Applicability of "During movement of irradiated fuel assemblies in the fuel storage pool." Therefore, this LCO can be applicable in any or all MODES. If the LCO and the Required Actions of LCO 3.7.16 are not met while in MODE 1, 2, or 3, there is no safety benefit to be gained by placing the unit in a shutdown condition. The Required Action of LCO 3.7.16 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 allows placing the unit in a MODE or other specified condition stated in that Applicability (e.g., the Applicability desired to be entered) when unit conditions are such that the requirements of the LCO would not be met, in accordance with *either* LCO 3.0.4.a, LCO 3.0.4.b, or LCO 3.0.4.c.

BASES

LCO 3.0.4 (continued)

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

For example, LCO 3.0.4.a may be used when the Required Action to be entered states that an inoperable instrument channel must be placed in the tripped condition within the Completion Time. Transition into a MODE or other specified in condition in the Applicability may be made in accordance with LCO 3.0.4 and the channel is subsequently placed in the tripped condition within the Completion Time, which begins when the Applicability is entered. If the instrument channel cannot be placed in the tripped condition and the subsequent default ACTION ("Required Action and associated Completion Time not met") allows the OPERABLE train to be placed in operation, use of LCO 3.0.4.a is acceptable because the subsequent ACTIONS to be entered following entry into the MODE include ACTIONS (place the OPERABLE train in operation) that permit safe plant operation for an unlimited period of time in the MODE or other specified condition to be entered.

LCO 3.0.4.b allows entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate.

The risk assessment may use quantitative, qualitative, or blended approaches, and the risk assessment will be conducted using the plant program, procedures, and criteria in place to implement 10 CFR 50.65(a)(4), which requires that risk impacts of maintenance activities to be assessed and managed. The risk assessment, for the purposes of LCO 3.0.4.b, must take into account all inoperable Technical Specification equipment regardless of whether the equipment is included in the normal 10 CFR 50.65(a)(4) risk assessment scope. The risk assessments will be conducted using the procedures and guidance endorsed by Regulatory Guide 1.182, "Assessing and Managing Risk

Before Maintenance Activities at Nuclear Power Plants.” Regulatory Guide 1.182 endorses the guidance in Section 11 of NUMARC 93-01, “Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants.” These documents address general guidance for conduct of the risk assessment, quantitative and qualitative guidelines for establishing risk management actions, and example risk management actions. These include actions to plan and conduct other activities in a manner that controls overall risk, increased risk awareness by shift and management personnel, actions to reduce the duration of the condition, actions to minimize the magnitude of risk increases (establishment of backup success paths or compensatory measures), and determination that the proposed MODE change is acceptable. Consideration should also be given to the probability of completing restoration such that the requirements of the LCO would be met prior to the expiration of ACTIONS Completion Times that would require exiting the Applicability.

BASES

LCO 3.0.4 (continued)

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

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

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

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

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 any unit shutdown. In this context, a unit shutdown is defined as a change in MODE or other specified condition in the Applicability associated with transitioning from MODE 1 to MODE 2, MODE 2 to MODE 3, MODE 3 to MODE 4, and MODE 4 to MODE 5.

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

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 3.0.1. Therefore, utilizing LCO 3.0.4 is not a violation of SR 3.0.1 or SR 3.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

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 either:

- 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. *LCO 3.0.5 should not be used in lieu of other practicable alternatives that comply with Required Actions and that do not require changing the MODE or other specified conditions in the Applicability in order to demonstrate equipment is OPERABLE. LCO 3.0.5 is not intended to be used repeatedly.*

BASES

LCO 3.0.5 (continued)

An example of demonstrating equipment is OPERABLE with the Required Actions not met is opening a manual valve that was closed to comply with Required Actions to isolate a flowpath with excessive Reactor Coolant System (RCS) Pressure Isolation Valve (PIV) leakage in order to perform testing to demonstrate that RCS PIV leakage is now within limit.

~~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.~~

Examples of demonstrating equipment OPERABILITY include instances in which it is necessary to take an inoperable channel or trip system out of a tripped condition that was directed by a Required Action, if there is no Required Action Note for this purpose. An example of verifying OPERABILITY of equipment removed from service is taking a tripped channel out of the tripped condition to permit the logic to function and indicate the appropriate response during performance of required testing on the inoperable channel. Examples ~~An example~~ of demonstrating the OPERABILITY of other equipment ~~are~~ taking an inoperable channel or trip system out of the tripped condition 1) to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system, or 2). ~~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.

The administrative controls in LCO 3.0.5 apply in all cases to systems or components in Chapter 3 of the Technical Specifications, as long as the testing could not be conducted while complying with the Required Actions. This includes the realignment or repositioning of redundant or alternate equipment or trains previously manipulated to comply with ACTIONS, as well as equipment removed from service or declared inoperable to comply with ACTIONS.

LCO 3.0.6

LCO 3.0.6 establishes an exception to LCO 3.0.2 for supported systems that have a support system LCO specified in the Technical Specifications (TS). This exception is provided because LCO 3.0.2 would require that the 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 supported system's Conditions and Required Actions or may specify other Required Actions.

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 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 examples of this process are:

- 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. 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. The requirements of regulations take precedence over the TS. An example of where SR 3.0.2 does not apply is in the Containment Leakage Rate Testing Program. This program establishes testing requirements and Frequencies in accordance with the requirements of regulations. The TS cannot in and of themselves extend a test interval specified in the regulations.

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 ~~performed completed~~ within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater, 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 adequate time to ~~perform complete~~ Surveillances that have been missed. This delay period permits the ~~performance completion~~ of a Surveillance before complying with Required Actions or other remedial measures that might preclude ~~completion~~ ~~performance~~ of the Surveillance.

BASES

SR 3.0.3 (continued)

The basis for this delay period includes consideration of unit 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 conditions, operating situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specified Frequency to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

SR 3.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

SR 3.0.3 is only applicable if there is a reasonable expectation the associated equipment is OPERABLE or that variables are within limits, and it is expected that the Surveillance will be met when performed. Many factors should be considered, such as the period of time since the Surveillance was last performed, or whether the Surveillance, or a portion thereof, has ever been performed, and any other indications, tests, or activities that might support the expectation that the Surveillance will be met when performed. An example of the use of SR 3.0.3 would be a relay contact that was not tested as required in accordance with a particular SR, but previous successful performances of the SR included the relay contact; the adjacent, physically connected relay contacts were tested during the SR performance; the subject relay contact has been tested by another SR; or historical operation of the subject relay contact has been successful. It is not sufficient to infer the behavior of the associated equipment from the performance of similar equipment. The rigor of determining whether there is a reasonable expectation a Surveillance will be met when performed should increase based on the length of time since the last performance of the Surveillance. If the Surveillance has been performed recently, a review of the Surveillance history and equipment performance may be sufficient to support a reasonable expectation that the Surveillance will be met when performed. For Surveillances that have not been performed for a long period or that have never been performed, a rigorous evaluation based on objective evidence should provide a high degree of confidence that the equipment is OPERABLE. The evaluation should be documented in sufficient detail

to allow a knowledgeable individual to understand the basis for the determination.

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 ~~repeatedly as an operational convenience~~ to extend Surveillance intervals. While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action thresholds, and risk management action up to and including plant

1.0 USE AND APPLICATION

1.3 Completion Times

PURPOSE	The purpose of this section is to establish the Completion Time convention and to provide guidance for its use.
BACKGROUND	Limiting Conditions for Operation (LCOs) specify minimum requirements for ensuring safe operation of the unit. The ACTIONS associated with an LCO state Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and Completion Time(s).
DESCRIPTION	<p>The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO.</p> <p><i>Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered. The "otherwise specified" exceptions are varied, such as a Required Action Note or Surveillance Requirement Note that provides an alternative time to perform specific tasks, such as testing, without starting the Completion Time. While utilizing the Note, should a Condition be applicable for any reason not addressed by the Note, the Completion Time begins. Should the time allowance in the Note be exceeded, the Completion Time begins at that point. The exceptions may also be incorporated into the Completion Time. For example, LCO 3.8.1, "AC Sources - Operating," Required Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator, inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case the Completion Time does not begin until the conditions in the Completion Time are satisfied.</i></p> <p>Required Actions must be completed prior to the expiration of the specified Completion Time. An ACTIONS Condition remains in effect and the Required Actions apply until the Condition no longer exists or the unit is not within the LCO Applicability.</p> <p>If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time. When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the time of</p>

discovery of the situation that required entry into the Condition, *unless otherwise specified*.

Once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition, unless specifically stated. The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition, *unless otherwise specified*.

However, when a subsequent division, subsystem, component, or variable expressed in the Condition is discovered to be inoperable or not within limits, the Completion Time(s) may be extended. To apply this Completion Time extension, two criteria must first be met. The subsequent inoperability:

- a. Must exist concurrent with the first inoperability and
- b. Must remain inoperable or not within limits after the first inoperability is resolved.

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, LCO 3.0.7, LCO 3.0.8, and LCO 3.0.9.

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 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 unit, as applicable, in:

- a. MODE 2 within [7] hours,
- b. MODE 3 within 13 hours, and
- c. MODE 4 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, and 3.

-----REVIEWER'S NOTE-----
The brackets around the time provided to reach MODE 2 allow a plant to extend the time from 7 hours to a plant specific time. Before the time can be changed, plant specific data must be provided to support the extended time.

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

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

LCO Applicability

LCO 3.0.4 (continued)

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

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

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.

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 5.5.12, "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 Operations LCOs in Section 3.10 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 Special Operations LCOs is optional. When a Special Operations LCO is desired to be met but is not met, the ACTIONS of the Special Operations LCO shall be met. When a Special Operations 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 greater. This delay period is permitted to allow performance of the Surveillance. *The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed.* A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the 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.

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 3.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

LCOs	LCO 3.0.1 through LCO 3.0.9 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 unit is in the MODES or other specified conditions of the Applicability statement of each Specification).
LCO 3.0.2	<p>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, <i>unless otherwise specified</i>. 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:</p> <ol style="list-style-type: none"> Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification and Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified. <p>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 place the unit 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.) 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.</p> <p>Completing the Required Actions is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.</p>

BASES

LCO 3.0.2 (continued)

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 3.4.10, "RCS 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/divisions of a safety function are inoperable and limits the time conditions exist which may result in LCO 3.0.3 being entered. Individual Specifications may specify a time limit for performing 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 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.

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 unit 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 unit. 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.

BASES

LCO 3.0.3 (continued)

This Specification delineates the time limits for placing the unit 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 unit 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~~*enter* 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 unit, assuming that only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the Reactor 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.

A unit 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. The LCO is no longer applicable,*
- ~~c.~~ A Condition exists for which the Required Actions have now been performed, or
- de.* 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 LCO 3.0.3 allow 37 hours for the unit to be in MODE 4 when a shutdown is required during MODE 1 operation. If the unit is in a lower MODE of operation when a shutdown is required, the time limit for ~~reaching~~*entering* the next lower MODE applies. If a lower MODE is ~~reached~~*entered* in less time than allowed, however, the total allowable time to ~~reach~~*enter* MODE 4, or other applicable MODE, is not reduced. For example, if MODE 2 is ~~reached~~*entered* in 2 hours, then the time allowed for ~~reaching~~*entering* MODE 3 is the next 11 hours, because the total time for

~~re~~*ach*~~en~~*ter*ing MODE 3 is not reduced from the allowable limit of 13 hours. Therefore, if

|

BASES

LCO 3.0.3 (continued)

remedial measures are completed that would permit a return to MODE 1, a penalty is not incurred by having to ~~reacher~~ a lower MODE of operation in less than the total time allowed.

In MODES 1, 2, and 3, 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 4 and 5 because the unit 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, or 3) 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 shutdown, in accordance with LCO 3.0.3, would not provide appropriate remedial measures for the associated condition of the unit. An example of this is in LCO 3.7.8, "Spent Fuel Storage Pool Water Level." LCO 3.7.8 has an Applicability of "During movement of irradiated fuel assemblies in the spent fuel storage pool." Therefore, this LCO can be applicable in any or all MODES. If the LCO and the Required Actions of LCO 3.7.8 are not met while in MODE 1, 2, or 3, there is no safety benefit to be gained by placing the unit in a shutdown condition. The Required Action of LCO 3.7.8 of "Suspend movement of irradiated fuel assemblies in the spent 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.

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 allows placing the unit in a MODE or other specified condition stated in that Applicability (e.g., the Applicability desired to be entered) when unit conditions are such that the requirements of the LCO would not be met, in accordance with *either* LCO 3.0.4.a, LCO 3.0.4.b, or LCO 3.0.4.c.

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

BASES

LCO 3.0.4 (continued)

For example, LCO 3.0.4.a may be used when the Required Action to be entered states that an inoperable instrument channel must be placed in the tripped condition within the Completion Time. Transition into a MODE or other specified condition in the Applicability may be made in accordance with LCO 3.0.4 and the channel is subsequently placed in the tripped condition within the Completion Time, which begins when the Applicability is entered. If the instrument channel cannot be placed in the tripped condition and the subsequent default ACTION ("Required Action and associated Completion Time not met") allows the OPERABLE train to be placed in operation, use of LCO 3.0.4.a is acceptable because the subsequent ACTIONS to be entered following entry into the MODE include ACTIONS (place the OPERABLE train in operation) that permit safe plant operation for an unlimited period of time in the MODE or other specified condition to be entered.

LCO 3.0.4.b allows entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate.

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

requirements of the LCO would be met prior to the expiration of ACTIONS Completion Times that would require exiting the Applicability.

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

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

BASES

LCO 3.0.4 (continued)

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

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

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.

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. In this context, a unit shutdown is defined as a change in MODE or other specified condition in the Applicability associated with transitioning from MODE 1 to MODE 2, MODE 2 to MODE 3, and MODE 3 to MODE 4.

BASES

LCO 3.0.4 (continued)

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

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, utilizing LCO 3.0.4 is not a violation of SR 3.0.1 or SR 3.0.4 for Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

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. *LCO 3.0.5 should not be used in lieu of other practicable alternatives that comply with Required Actions and that do not require changing the MODE or other specified conditions in the Applicability in order to demonstrate equipment is OPERABLE. LCO 3.0.5 is not intended to be used repeatedly.*

An example of demonstrating equipment is OPERABLE with the Required Actions not met is opening a manual valve that was closed to comply with Required Actions to isolate a flowpath with excessive Reactor Coolant System (RCS) Pressure Isolation Valve (PIV) leakage in order to perform testing to demonstrate that RCS PIV leakage is now within limit.

~~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.~~

Examples of demonstrating equipment OPERABILITY include instances in which it is necessary to take an inoperable channel or trip system out of a tripped condition that was directed by a Required Action, if there is no Required Action Note for this purpose. An example of verifying OPERABILITY of equipment removed from service is taking a tripped channel out of the tripped condition to permit the logic to function and indicate the appropriate response during performance of required testing on the inoperable channel. Examples ~~An example~~ of demonstrating the OPERABILITY of other equipment ~~are~~is taking an inoperable channel or trip system out of the tripped condition 1) to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system, or 2). ~~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.

The administrative controls in LCO 3.0.5 apply in all cases to systems or components in Chapter 3 of the Technical Specifications, as long as the testing could not be conducted while complying with the Required Actions. This includes the realignment or repositioning of redundant or alternate equipment or trains previously manipulated to comply with ACTIONS, as well as equipment removed from service or declared inoperable to comply with ACTIONS.

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 unit 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 examples of this process are:

- a. Control Rod Drive maintenance during refueling that requires scram testing at > [800 psi]. However, if other appropriate testing is satisfactorily completed and the scram time testing of SR 3.1.4.3 is satisfied, the control rod can be considered OPERABLE. This allows startup to proceed to reach [800 psi] to perform other necessary testing.
- b. High pressure coolant injection (HPCI) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with HPCI 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. The requirements of regulations take precedence over the TS. An example of where SR 3.0.2 does not apply is in the Primary Containment Leakage Rate Testing Program. This program establishes testing requirements and Frequencies in accordance with the requirements of regulations. The TS cannot in and of themselves extend a test interval specified in the regulations.

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 ~~performed completed~~ within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater, 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 adequate time to ~~complete~~ *perform* Surveillances that have been missed. This delay period permits the ~~performance completion~~ of a Surveillance before complying with Required Actions or other remedial measures that might preclude *performance completion* of the Surveillance.

The basis for this delay period includes consideration of unit 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 conditions, operating situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specified Frequency to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

SR 3.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

SR 3.0.3 is only applicable if there is a reasonable expectation the associated equipment is OPERABLE or that variables are within limits, and it is expected that the Surveillance will be met when performed. Many factors should be considered, such as the period of time since the Surveillance was last performed, or whether the Surveillance, or a portion thereof, has ever been performed, and any other indications, tests, or activities that might support the expectation that the Surveillance will be met when performed. An example of the use of SR 3.0.3 would be a relay contact that was not tested as required in accordance with a particular SR, but previous successful performances of the SR included the relay contact; the adjacent, physically connected relay contacts were tested during the SR performance; the subject relay contact has been tested by another SR; or historical operation of the subject relay contact has been successful. It is not sufficient to infer the behavior of the associated equipment from the performance of similar equipment. The rigor of determining whether there is a reasonable expectation a Surveillance will be met when performed should increase based on the length of time since the last performance of the Surveillance. If the Surveillance has been performed recently, a review of the Surveillance

history and equipment performance may be sufficient to support a reasonable expectation that the Surveillance will be met when performed. For Surveillances that have not been performed for a long period or that have never been performed, a rigorous evaluation based on objective evidence should provide a high degree of confidence that the equipment is OPERABLE. The evaluation should be documented in sufficient detail to allow a knowledgeable individual to understand the basis for the determination.

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 ~~repeatedly as an operational convenience~~ to extend Surveillance intervals. While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." This Regulatory Guide addresses consideration of temporary and

1.0 USE AND APPLICATION

1.3 Completion Times

PURPOSE	The purpose of this section is to establish the Completion Time convention and to provide guidance for its use.
BACKGROUND	Limiting Conditions for Operation (LCOs) specify minimum requirements for ensuring safe operation of the unit. The ACTIONS associated with an LCO state Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and Completion Time(s).
DESCRIPTION	<p>The Completion Time is the amount of time allowed for completing a Required Action. It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an ACTIONS Condition unless otherwise specified, providing the unit is in a MODE or specified condition stated in the Applicability of the LCO.</p> <p><i>Unless otherwise specified, the Completion Time begins when a senior licensed operator on the operating shift crew with responsibility for plant operations makes the determination that an LCO is not met and an ACTIONS Condition is entered. The "otherwise specified" exceptions are varied, such as a Required Action Note or Surveillance Requirement Note that provides an alternative time to perform specific tasks, such as testing, without starting the Completion Time. While utilizing the Note, should a Condition be applicable for any reason not addressed by the Note, the Completion Time begins. Should the time allowance in the Note be exceeded, the Completion Time begins at that point. The exceptions may also be incorporated into the Completion Time. For example, LCO 3.8.1, "AC Sources - Operating," Required Action B.2, requires declaring required feature(s) supported by an inoperable diesel generator, inoperable when the redundant required feature(s) are inoperable. The Completion Time states, "4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)." In this case the Completion Time does not begin until the conditions in the Completion Time are satisfied.</i></p> <p>Required Actions must be completed prior to the expiration of the specified Completion Time. An ACTIONS Condition remains in effect and the Required Actions apply until the Condition no longer exists or the unit is not within the LCO Applicability.</p> <p>If situations are discovered that require entry into more than one Condition at a time within a single LCO (multiple Conditions), the Required Actions for each Condition must be performed within the associated Completion Time. When in multiple Conditions, separate Completion Times are tracked for each Condition starting from the time of</p>

discovery of the situation that required entry into the Condition, *unless otherwise specified*.

Once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition, unless specifically stated. The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition, *unless otherwise specified*.

However, when a subsequent division, subsystem, component, or variable expressed in the Condition is discovered to be inoperable or not within limits, the Completion Time(s) may be extended. To apply this Completion Time extension, two criteria must first be met. The subsequent inoperability:

- a. Must exist concurrent with the first inoperability and
- b. Must remain inoperable or not within limits after the first inoperability is resolved.

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, LCO 3.0.7, LCO 3.0.8, and LCO 3.0.9.

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 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 unit, as applicable, in:

- a. MODE 2 within 7 hours,
- b. MODE 3 within 13 hours, and
- c. MODE 4 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, and 3.

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

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
 - b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; (exceptions to this Specification are stated in the individual Specifications); or
 - c. When an allowance is stated in the individual value, parameter, or other Specification.
-

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 greater. This delay period is permitted to allow performance of the Surveillance. *The delay period is only applicable when there is a reasonable expectation the surveillance will be met when performed.* A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the 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.

SR 3.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 3.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

SR Applicability

SR 3.0.4 (continued)

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.

B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

LCOs	LCO 3.0.1 through LCO 3.0.9 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 unit is in the MODES or other specified conditions of the Applicability statement of each Specification).
LCO 3.0.2	<p>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, <i>unless otherwise specified</i>. 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:</p> <ol style="list-style-type: none"> Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification and Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified. <p>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 place the unit 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.) 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.</p> <p>Completing the Required Actions is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.</p>

BASES

LCO 3.0.2 (continued)

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 3.4.11, "RCS 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/divisions of a safety function are inoperable and limits the time conditions exist which may result in LCO 3.0.3 being entered. Individual Specifications may specify a time limit for performing 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 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.

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 unit 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 unit. 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.

BASES

LCO 3.0.3 (continued)

This Specification delineates the time limits for placing the unit 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 unit 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 ~~enter 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 unit, assuming that only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the Reactor 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.

A unit 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. The LCO is no longer applicable,*
- ~~cb.~~ A Condition exists for which the Required Actions have now been performed, or
- de.* 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 LCO 3.0.3 allow 37 hours for the unit to be in MODE 4 when a shutdown is required during MODE 1 operation. If the unit 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 4, or other applicable MODE, is not reduced. For example, if MODE 2 is ~~reached~~ in 2 hours, then the time allowed for ~~reaching~~ MODE 3 is the next 11 hours, because the total time for

~~re~~*ach*~~en~~*ter*ing MODE 3 is not reduced from the allowable limit of 13 hours. Therefore, if

|

BASES

LCO 3.0.3 (continued)

remedial measures are completed that would permit a return to MODE 1, a penalty is not incurred by having to ~~re-enter~~ a lower MODE of operation in less than the total time allowed.

In MODES 1, 2, and 3, 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 4 and 5 because the unit 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, or 3) 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 shutdown, in accordance with LCO 3.0.3, would not provide appropriate remedial measures for the associated condition of the unit. An example of this is in LCO 3.7.7, "Fuel Pool Water Level." LCO 3.7.7 has an Applicability of "During movement of irradiated fuel assemblies in the associated fuel storage pool." Therefore, this LCO can be applicable in any or all MODES. If the LCO and the Required Actions of LCO 3.7.7 are not met while in MODE 1, 2, or 3, there is no safety benefit to be gained by placing the unit in a shutdown condition. The Required Action of LCO 3.7.7 of "Suspend movement of irradiated fuel assemblies in the associated fuel storage pool(s)" 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 allows placing the unit in a MODE or other specified condition stated in that Applicability (e.g., the Applicability desired to be entered) when unit conditions are such that the requirements of the LCO would not be met, in accordance with *either* LCO 3.0.4.a, LCO 3.0.4.b, or LCO 3.0.4.c.

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

BASES

LCO 3.0.4 (continued)

For example, LCO 3.0.4.a may be used when the Required Action to be entered states that an inoperable instrument channel must be placed in the trip condition within the Completion Time. Transition into a MODE or other specified in condition in the Applicability may be made in accordance with LCO 3.0.4 and the channel is subsequently placed in the tripped condition within the Completion Time, which begins when the Applicability is entered. If the instrument channel cannot be placed in the tripped condition and the subsequent default ACTION ("Required Action and associated Completion Time not met") allows the OPERABLE train to be placed in operation, use of LCO 3.0.4.a is acceptable because the subsequent ACTIONS to be entered following entry into the MODE include ACTIONS (place the OPERABLE train in operation) that permit safe plant operation for an unlimited period of time in the MODE or other specified condition to be entered.

LCO 3.0.4.b allows entry into a MODE or other specified condition in the Applicability with the LCO not met after performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate.

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

requirements of the LCO would be met prior to the expiration of ACTIONS Completion Times that would require exiting the Applicability.

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

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

BASES

LCO 3.0.4 (continued)

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

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

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.

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. In this context, a unit shutdown is defined as a change in MODE or other specified condition in the Applicability associated with transitioning from MODE 1 to MODE 2, MODE 2 to MODE 3, and MODE 3 to MODE 4.

BASES

LCO 3.0.4 (continued)

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

Surveillances do not have to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 3.0.1. Therefore, utilizing LCO 3.0.4 is not a violation of SR 3.0.1 or SR 3.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

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. *LCO 3.0.5 should not be used in lieu of other practicable alternatives that comply with Required Actions and that do not require changing the MODE or other specified conditions in the Applicability in order to demonstrate equipment is OPERABLE. LCO 3.0.5 is not intended to be used repeatedly.*

An example of demonstrating equipment is OPERABLE with the Required Actions not met is opening a manual valve that was closed to comply with Required Actions to isolate a flowpath with excessive Reactor Coolant System (RCS) Pressure Isolation Valve (PIV) leakage in order to perform testing to demonstrate that RCS PIV leakage is now within limit.

~~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.~~

Examples of demonstrating equipment OPERABILITY include instances in which it is necessary to take an inoperable channel or trip system out of a tripped condition that was directed by a Required Action, if there is no Required Action Note for this purpose. An example of verifying OPERABILITY of equipment removed from service is taking a tripped channel out of the tripped condition to permit the logic to function and indicate the appropriate response during performance of required testing on the inoperable channel. Examples ~~An example~~ of demonstrating the OPERABILITY of other equipment ~~are~~is taking an inoperable channel or trip system out of the tripped condition 1) to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system, or 2). ~~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.

The administrative controls in LCO 3.0.5 apply in all cases to systems or components in Chapter 3 of the Technical Specifications, as long as the testing could not be conducted while complying with the Required Actions. This includes the realignment or repositioning of redundant or alternate equipment or trains previously manipulated to comply with ACTIONS, as well as equipment removed from service or declared inoperable to comply with ACTIONS.

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 unit 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 examples of this process are:

- a. Control Rod Drive maintenance during refueling that requires scram testing at > [800 psi]. However, if other appropriate testing is satisfactorily completed and the scram time testing of SR 3.1.4.3 is satisfied, the control rod can be considered OPERABLE. This allows startup to proceed to reach [800 psi] to perform other necessary testing.
- b. Reactor Core Isolation Cooling (RCIC) maintenance during shutdown that requires system functional tests at a specified pressure. Provided other appropriate testing is satisfactorily completed, startup can proceed with RCIC 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. The requirements of regulations take precedence over the TS. An example of where SR 3.0.2 does not apply is in the Primary Containment Leakage Rate Testing Program. This program establishes testing requirements and Frequencies in accordance with the requirements of regulations. The TS cannot in and of themselves extend a test interval specified in the regulations.

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 ~~performed completed~~ within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater, 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 adequate time to ~~perform complete~~ Surveillances that have been missed. This delay period permits the ~~performance completion~~ of a Surveillance before complying with Required Actions or other remedial measures that might preclude ~~performance completion~~ of the Surveillance.

The basis for this delay period includes consideration of unit 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 conditions, operating situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.) is discovered to not have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specified Frequency to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

SR 3.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

SR 3.0.3 is only applicable if there is a reasonable expectation the associated equipment is OPERABLE or that variables are within limits, and it is expected that the Surveillance will be met when performed. Many factors should be considered, such as the period of time since the Surveillance was last performed, or whether the Surveillance, or a portion thereof, has ever been performed, and any other indications, tests, or activities that might support the expectation that the Surveillance will be met when performed. An example of the use of SR 3.0.3 would be a relay contact that was not tested as required in accordance with a particular SR, but previous successful performances of the SR included the relay contact; the adjacent, physically connected relay contacts were tested during the SR performance; the subject relay contact has been tested by another SR; or historical operation of the subject relay contact has been successful. It is not sufficient to infer the behavior of the associated equipment from the performance of similar equipment. The rigor of determining whether there is a reasonable expectation a Surveillance will be met when performed should increase based on the length of time since the last performance of the Surveillance. If the Surveillance has been performed recently, a review of the Surveillance history and equipment performance may be sufficient to support a reasonable expectation that the Surveillance will be met when performed.

For Surveillances that have not been performed for a long period or that have never been performed, a rigorous evaluation based on objective evidence should provide a high degree of confidence that the equipment is OPERABLE. The evaluation should be documented in sufficient detail to allow a knowledgeable individual to understand the basis for the determination.

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 ~~repeatedly as an operational convenience~~ to extend Surveillance intervals. While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on plant risk (from delaying the Surveillance as well as any plant configuration changes required or shutting the plant down to perform the Surveillance) and impact on any analysis assumptions, in addition to unit conditions, planning, availability of personnel, and the time required to perform the Surveillance. This risk impact should be managed through the program in place to implement 10 CFR 50.65(a)(4) and its implementation guidance, NRC Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants." This Regulatory Guide addresses consideration of temporary and aggregate risk impacts, determination of risk management action