



NUCLEAR ENERGY INSTITUTE

James W. Davie
DIRECTOR
OPERATIONS DEPARTMENT
REGULATORY SERVICES

September 15, 2000

Dr. William D. Beckner, Branch Chief
Technical Specifications Branch
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: Forwarding of TSTFs

PROJECT NUMBER: 689

Dear Dr. Beckner:

Enclosed is the Technical Specification NUREGs NEI Technical Specification Task Force (TSTF) Traveler TSTF-358, Revision 2. This Traveler modifies Technical Specification 3.0.3 to allow a risk-informed evaluation of an unintentionally missed surveillance. The results of the risk-informed evaluation may be used to reschedule the surveillance, commensurate with the plant configuration management requirements of 10 CFR 50.65(a)(4) and its implementation guidance, Regulatory Guide 1.182. (The revisions to 10 CFR 50.65 become effective on November 23, 2000. Surveillance testing is explicitly identified in the rule as a maintenance activity subject to the (a)(4) provisions.)

The proposed change will not involve permanent changes to plant risk metrics, and is expected to be infrequently utilized. Rescheduling of missed surveillances pursuant to Regulatory Guide 1.182 ensures the necessary provisions for managing the risk impact, in accordance with other ongoing plant configuration changes. The missed surveillance would be treated as an emergent condition, in the same fashion as other unplanned maintenance activities. This regulatory guide endorses industry guidance that references the permanent change guidelines of Regulatory Guide 1.174 with regard to the aggregate impact of plant configuration changes (including missed surveillances).

The proposed change is not intended to allow intentional missing of surveillance requirements. All missed surveillances would be included in, and treated in accordance with, the plant corrective action program.

Dr. William D. Beckner

September 15, 2000

Page 2

Please contact me at (202) 739-8105 or Biff Bradley at (202) 739-8138 if you have any questions or need to meet with industry experts on these recommended changes.

Sincerely,

James W. Davis

Enclosure

c: Patricia Coates
Stewart L. Magruder, NRR/DRPM
Technical Specification Task Force

Industry/TSTF Standard Technical Specification Change Traveler

Missed Surveillance Requirements

Classification: 3) Improve Specifications

NUREGs Affected: 1430 1431 1432 1433 1434

Description:

ITS SR 3.0.3 currently allows a delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is less, to perform a missed Surveillance prior to having to declare the equipment inoperable. The proposed change will modify SR 3.0.3 to allow a delay period of 24 hours or up to the Surveillance Frequency interval, whichever is longer. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours. The risk evaluation may be qualitative or quantitative. Missed Surveillances for components not modeled in the plant's PSA or low safety significance components may be analyzed qualitatively. A missed Surveillance for important components, or multiple missed Surveillances for components which affect the PSA should be analyzed quantitatively. The missed Surveillance will be performed at the next opportunity. Any missed Surveillance requiring a change in MODE or plant conditions for performance would be performed at the first reasonable opportunity. This change will reduce the need to apply for regulatory relief for the performance of missed Surveillances. Failure to meet a Surveillance Frequency would be documented in the licensee's 10 CFR 50, Appendix B, Corrective Action Program, and would be available for NRC review.

The proposed change includes an explanation in the Bases, which states it is expected that the missed Surveillance will be performed at the first reasonable opportunity and that the determination of the first reasonable opportunity should include the effect on plant risk and accident analysis assumptions, along with consideration of unit conditions, planning, availability of personnel and the actual time required to perform the Surveillance. The Bases also clarify that for Surveillances with a Frequency not based on time intervals that the missed Surveillance shall be performed at the first reasonable opportunity. Determination of the first reasonable opportunity should consider the Code of Federal Regulations (CFR) requirements and allowances when the missed Surveillance Frequency is specified in terms of a CFR requirement. The Bases make clear that the allowance specified in SR 3.0.3 shall not be construed to supersede the CFR requirements.

Justification:

Background

ITS SR 3.0.3 is based on NRC Generic Letter 87-09. GL 87-09 was published to address three specific issues with the application of Technical Specifications. One of those issues was missed Surveillances. The Generic Letter states, "The second problem involves unnecessary shutdowns caused by Specification 4.0.3 when surveillance intervals are inadvertently exceeded. The solution is to clarify the applicability of the Action Requirements, to specify a specific acceptable time limit for completing a missed surveillance in certain circumstances, and to clarify when a missed surveillance constitutes a violation of the Operability Requirements of an LCO. 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. Because the allowable outage time limits of some Action Requirements do not provide an appropriate time for performing a missed surveillance before Shutdown Requirements apply, the TS should include a time limit that allows a delay of required actions to permit the performance of the missed surveillance based on consideration of plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, and, of course, the safety significance of the delay in completing the surveillance. The staff has concluded that 24 hours is an acceptable time limit for completing a missed surveillance when the allowable outage times of the Action Requirements are less than this limit, or when time is needed to obtain a temporary waiver of the Surveillance Requirement."

The ITS implements the staff's recommendations in GL 87-09 as SR 3.0.3. ITS Surveillance Requirement 3.0.3 states, "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

9/14/00

the specified Frequency, whichever is less. This delay period is permitted to allow performance of the Surveillance."

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

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

Need for Change

Surveillances which have a Frequency less than 24 hours can typically be performed when missed, because they are frequent, typically straightforward, monitoring activities. However, there are other Surveillances that cannot be adequately performed in 24 hours. Performance of Surveillances requires planning, personnel, preparation, and appropriate plant conditions. Some Surveillances, when discovered missed, may require a change in the state or MODE of the facility to perform the Surveillance. When faced with a missed Surveillance that may require a change in state or MODE, a licensee would have to either 1) declare the LCO not met and enter the Actions, which could ultimately require a plant shutdown, 2) determine a method to perform the SR in the current state or MODE, or 3) request a Notice of Enforcement Discretion - all potentially in the space of 24 hours.

A survey of licensees indicates that in the 1996 to present time frame, more than 10 NOEDs regarding missed Surveillances have been processed. In some cases, the approval of the NOED was followed by a NRC request for an exigent Technical Specifications change. This is an unnecessary use of NRC and industry resources. The basis for approval of the NOEDs was 1) the historical reliability of the component or system during past Surveillance testing, 2) the likelihood that the Surveillance will pass when performed, 3) for Surveillances that can be performed at power, the short time period requested for extension. These arguments are equally applicable to the proposed change.

Proposed Change

The proposed change revises SR 3.0.3 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 longer. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours."

The Bases are revised to state, "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 shall 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."

The following information is added to the Bases, "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 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 assessed and managed pursuant to 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

9/14/00

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."

This proposed change will not allow equipment known to be inoperable to be considered OPERABLE until the missed Surveillance is performed. If it is known that the missed Surveillance could not be met, ITS SR 3.0.1 would require that the LCO be declared not met and the appropriate Condition(s) entered. In addition, the Bases for SR 3.0.3 states that 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, but only for performance of the missed Surveillance.

The risk evaluation can be qualitative for a missed Surveillance for a component that is either not modeled in the plant's PSA or has been shown to be of low importance in the plant's IPE, PSA, and / or Maintenance Rule results. A quantitative risk evaluation should be performed for a missed Surveillance of a potentially high risk importance component, and for missed Surveillances involving more than one PSA affecting component.

Justification

Effect on Safety Analyses

The accident analyses presented in the UFSAR do not address the performance of Surveillance Requirements. The accident analyses assume that the necessary equipment is available and then, in most cases, assumes the single most limiting active failure occurs. Therefore, this proposal to extend the time allowed to perform a missed Surveillance would not affect the accident analyses, as long as the equipment was, in fact, OPERABLE.

Effect on Risk Informed Analysis

Plant specific Probabilistic Safety Assessments (PSAs) consider the time between Surveillances as the longest period that a particular component may be inoperable without detection. This time period may be used in determining the component basic event (BE) failure probabilities for standby components. To evaluate the potential impact of a missed Surveillance on plant risk, the component failure probability can be increased proportionally to the time interval from the last test to the next expected test of the component. This new component failure probability can then be factored into the PRA model and the impact on CDF and/or LERF can be determined.

It is expected that missed Surveillances on only a few standby components could result in a significant impact on plant risk as measured by CDF and LERF. In one example, doubling component failure probabilities, assuming the Surveillance test interval doubled, results in only a few plant components providing a significant impact on risk. The vast majority of the components have little or no impact on risk. Those components that have a significant impact are located outside containment and can be easily tested within a short time if a Surveillance is missed, such as, auxiliary feedwater pumps, high pressure safety injection pumps, and emergency diesel generators.

Additionally, the number of missed Surveillances is a very small fraction of the total number of Surveillances performed at a nuclear power plant in a year. When this is combined with the very rare occurrence of the missed Surveillance determining that the equipment being testing is inoperable, the increase in risk to the plant is very small.

For those Surveillances that are potentially risk-significant, the requirement to perform a risk evaluation if it is extended beyond 24 hours will ensure the risk remains acceptable. So even though the historical data and typical PSA results show an overall small risk increase for this change, the risk evaluation requirements will ensure that the risk increase for a given Surveillance extension is also acceptable.

Performance of some Surveillances require the associated component to be made temporarily inoperable (due to required system configuration, etc.) while other Surveillances require specific plant configurations. Having equipment not available or having to manipulate the plant configuration carries with it a finite risk. This may include equipment down time, misconfiguration, equipment wear, radiation exposure, burden on plant personnel, and the potential for plant

9/14/00

transients (Reference 1). Additionally, if the plant is required to shut down in order to complete the Surveillance, the transition from full power to shutdown provides a risk increase. Overall, due to the avoidance of unnecessary shutdowns, the low number of potentially risk-significant Surveillances, and the requirements for a risk evaluation if a Surveillance is extended, the change is considered a risk reduction to risk neutral. Additionally, the change represents a burden reduction for both the plant and the NRC.

Supporting Data

As stated in Generic Letter 87-09, the vast majority of Surveillances do in fact demonstrate that systems or components are OPERABLE. A review of Licensee Event Reports (LERs) between the years 1995 and 1998 supports this assertion. A total of 11,393 LERs were searched for events related to missed Surveillances. Of these LERs, 170 LERs related to missed Surveillances. A review of the 170 LERs found twelve instances in which the Surveillance, when performed, failed. However, all of these failures were associated with tests which had never been previously performed on the equipment. These failures represent design failure, procedural oversights, or long term maintenance oversights. Examining the missed Surveillances which are applicable to the proposed change, there were no instances in which a normally performed Surveillance was missed and when subsequently performed, failed.

These results are not surprising. Since 1992, the NRC and Industry have been working together to establish good maintenance practices. Since the implementation of the Maintenance Rule and other NRC and Industry initiatives, equipment availability has increased. In addition, Surveillance procedures and programs have been the subject of several NRC and Industry initiatives, resulting in improved performance and scheduling of Surveillances. Still, Surveillances may be missed for a variety of reasons. While the current version of SR 3.0.3 provides some allowance for these events, there are Surveillances that cannot be performed in 24 hours and still others that require a change in the state or MODE of the facility to perform the Surveillance.

Determination of No Significant Hazards Considerations

A change is proposed to the Improved Technical Specifications, NUREGs 1430 - 1434, Surveillance Requirement 3.0.3, to allow a longer period of time to perform a missed Surveillance. The time is extended from the current limit of up to 24 hours or up to the limit of the specified Frequency, whichever is less; to up to 24 hours or up to the limit of the specified Frequency, whichever is greater.

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

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

The proposed change relaxes the time allowed to perform a missed Surveillance. The time between Surveillances is not an initiator to any accident previously evaluated. Consequently, the probability of an accident previously evaluated is not significantly increased. The equipment being tested is still required to be OPERABLE and capable of performing the accident mitigation functions assumed in the accident analysis. As a result, the consequences of any accident previously evaluated are not significantly affected. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The proposed change does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

The relaxed time allowed to perform a missed Surveillance does not result in a significant reduction in the margin of

9/14/00

safety. As supported by the historical data, the likely outcome of any Surveillance is verification that the LCO is met. Failure to perform a Surveillance within the prescribed Frequency does not cause equipment to become inoperable. The only effect of the additional time allowed to perform a missed Surveillance on the margin of safety is the extension of the time until inoperable equipment is discovered to be inoperable by the missed Surveillance. However, given the rare occurrence of inoperable equipment, and the rare occurrence of a missed Surveillance, a missed Surveillance on inoperable equipment would be very unlikely. This must be balanced against the real risk of manipulating the plant equipment or condition to perform the missed Surveillance. In addition, parallel trains and alternate equipment are typically available to perform the safety function of the equipment not tested. Thus, there is confidence that the equipment can perform its assumed safety function. Therefore, this change does not involve a significant reduction in a margin of safety.

Reference

1) NUREG/CR-6141, "Handbook of Methods for Risk-Based Analyses of Technical Specifications," US NRC, December 1994.

Industry Contact:	Clarkson, Noel	(864) 855-3077	ntclarks@duke-energy.com
NRC Contact:	Gilles, Nan	301-415-1180	nvg@nrc.gov

Revision History

OG Revision 0 Revision Status: Closed

Revision Proposed by: RITSTF

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 30-Aug-99

Owners Group Comments
(No Comments)

Owners Group Resolution: Superceded Date:

OG Revision 1 Revision Status: Closed

Revision Proposed by: RITSTF

Revision Description:

Revision 1 was created to incorporate comments of the RITSTF. The major changes include (1) deletion of the Missed Surveillance Report, (2) reliance on the Bases to address informing the NRC of any missed Surveillances, and (3) the addition of a paragraph to explain that the requirements of the Code of Federal Regulations (CFR) must be considered in the determination of the first reasonable opportunity to perform the missed Surveillance, and that SR 3.0.3 does not supersede any CFR requirements.

TSTF Review Information

TSTF Received Date: 25-Oct-99 Date Distributed for Review

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:
(No Comments)

9/14/00

OG Revision 1 **Revision Status: Closed**

TSTF Resolution: Superceded Date:

OG Revision 2 **Revision Status: Closed**

Revision Proposed by: TSTF

Revision Description:

Revision 2 was created to incorporate comments of the TSTF and the industry. The major changes include 1) deletion of the Bases requirement to inform the NRC of the missed Surveillance and to indicate reliance upon appropriate licensee action and the reporting requirements of 10 CFR 50.73, 2) the deletion of the paragraph regarding SR 3.0.3 superceding any CFR requirements because the industry feels it is clear without making this statement, and 3) other justification enhancements and editorial changes.

TSTF Review Information

TSTF Received Date: 26-Oct-99 Date Distributed for Review 26-Oct-99

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Superceded Date:

OG Revision 3 **Revision Status: Closed**

Revision Proposed by: TSTF

Revision Description:

Revision 3 was created to incorporate further comments of the TSTF and the Industry. The major changes include (1) consistent use of the term "first" reasonable opportunity, and (2) change of Industry contact to a TSTF Chairman.

TSTF Review Information

TSTF Received Date: 08-Nov-99 Date Distributed for Review 08-Nov-99

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved Date: 09-Nov-99

NRC Review Information

NRC Received Date: 17-Nov-99

NRC Comments:

(No Comments)

Final Resolution: Superceded by Revision

Final Resolution Date:

TSTF Revision 1 **Revision Status: Closed**

9/14/00

TSTF Revision 1**Revision Status: Closed**

Revision Proposed by: TSTF

Revision Description:

The Description and Justification are completely replaced to address the NRC's request for sufficient information to support creation of an SER for this change.

TSTF Review Information

TSTF Received Date: 15-Feb-00 Date Distributed for Review

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Superceded Date: 26-Jun-00

TSTF Revision 2**Revision Status: Closed**

Revision Proposed by: TSTF

Revision Description:

Revised Description and Justification based on Industry comments. Put requirement to perform risk evaluation of SRs extended greater than 24 hours in SR 3.0.3. Expanded the Bases description of the requirement evaluation.

TSTF Review Information

TSTF Received Date: 26-Jun-00 Date Distributed for Review 26-Jul-00

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

NOTE - Revision 2 was never provided to the NRC for review.

TSTF Resolution: Superceded Date: 16-Aug-00

TSTF Revision 3**Revision Status: Closed**

Revision Proposed by: RITSTF

Revision Description:

Revised the "Proposed Change" section of the justification, second paragraph, to state, "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." Eliminated reference to the San Onofre IPE.

TSTF Review Information

TSTF Received Date: 16-Aug-00 Date Distributed for Review 16-Aug-00

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

9/14/00

TSTF Revision 3**Revision Status: Closed**

TSTF Resolution: Superseded Date: 21-Aug-00

TSTF Revision 4**Revision Status: Closed**

Revision Proposed by: RITSTF

Revision Description:

Made several editorial improvements. Added a discussion of Insert 1 to the "Proposed Change" section of the justification.

TSTF Review Information

TSTF Received Date: 23-Aug-00 Date Distributed for Review

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Superseded Date: 06-Sep-00

TSTF Revision 5**Revision Status: Active****Next Action: NRC**

Revision Proposed by: RITSTF

Revision Description:

Revised the justification section, "Effect on Risk Analysis." Revised the Bases and insert to state all missed Surveillances will, rather than "shall", be placed in the licensee's Corrective Action Program.

TSTF Review Information

TSTF Received Date: 06-Sep-00 Date Distributed for Review 06-Sep-00

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved Date: 14-Sep-00

NRC Review Information

NRC Received Date: 14-Sep-00

NRC Comments:

(No Comments)

Final Resolution: NRC Action Pending

Final Resolution Date:

Incorporation Into the NUREGs

File to BBS/LAN Date:

TSTF Informed Date:

TSTF Approved Date:

NUREG Rev Incorporated:

9/14/00

Affected Technical Specifications

SR 3.0.3 SR Applicability

SR 3.0.3 Bases SR Applicability

9/14/00

Insert 1

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 shall 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.

Insert 2

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 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 assessed and managed pursuant to 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.

Insert 3

A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours.

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 Required Action requires performance of a surveillance or its Completion Time requires periodic performance on a "once per . . ." basis, the above Frequency extension applies to each performance after the initial performance.

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is ~~less~~. This delay period is permitted to allow performance of the Surveillance. ^{greater}

Insert 3

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

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

(continued)

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1 SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

SR 3.0.2 The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

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

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

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is ~~less~~. This delay period is permitted to allow performance of the Surveillance.

Insert 3

greater

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

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

(continued)

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1 SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

SR 3.0.2 The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

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

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

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is ~~less~~. This delay period is permitted to allow performance of the Surveillance ~~greater~~.

Insert 3

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

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

(continued)

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1 SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

SR 3.0.2 The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

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

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

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is ~~less~~. This delay period is permitted to allow performance of the Surveillance.

Insert?

Greater

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

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

(continued)

TSTF-358 REVS

3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

SR 3.0.1 SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO. Failure to perform a Surveillance within the specified Frequency shall be failure to meet the LCO except as provided in SR 3.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

SR 3.0.2 The specified Frequency for each SR is met if the Surveillance is performed within 1.25 times the interval specified in the Frequency, as measured from the previous performance or as measured from the time a specified condition of the Frequency is met.

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

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

Exceptions to this Specification are stated in the individual Specifications.

SR 3.0.3 If it is discovered that a Surveillance was not performed within its specified Frequency, then compliance with the requirement to declare the LCO not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified Frequency, whichever is ~~less~~. This delay period is permitted to allow performance of the Surveillance.

Insert 3

Greater

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

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

(continued)

TSTF-358 REV 5

BASES

SR 3.0.2
(continued)

Therefore, there is a Note in the Frequency stating, "SR 3.0.2 is not applicable."

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

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

SR 3.0.3

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

greater

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

The basis for this delay period includes consideration of unit 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

(continued)

BASES

SR 3.0.3
(continued)

probable result of any particular Surveillance being performed is the verification of conformance with the requirements.

Insert 1

When a Surveillance with a Frequency based not on time intervals, but upon specified unit conditions or operational situations, is discovered not to have been performed when specified, SR 3.0.3 allows the full delay period of 24 hours to perform the Surveillance. SR 3.0.3 also provides a time limit for completion of Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

Insert 2

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

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

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

SR 3.0.4

SR 3.0.4 establishes the requirement that all applicable SRs must be met before entry into a MODE or other specified condition in the Applicability.

This Specification ensures that system and component OPERABILITY requirements and variable limits are met before entry into MODES or other specified conditions in the Applicability for which these systems and components ensure safe operation of the unit. The provisions of this Specification should not be interpreted as endorsing the

(continued)

BASES

SR 3.0.2
(continued)

Therefore, there is a Note in the Frequency stating, "SR 3.0.2 is not applicable."

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

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

SR 3.0.3

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

greater

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

The basis for this delay period includes consideration of unit 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

(continued)

TSTF-358 REV5

BASES

SR 3.0.3
(continued)

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 or operational situations, is discovered not to have been performed when specified, SR 3.0.3 allows the full delay period of 24 hours to perform the Surveillance.

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

Insert 1

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.

Insert 2

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

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

SR 3.0.4

SR 3.0.4 establishes the requirement that all applicable SRs must be met before entry into a MODE or other specified condition in the Applicability.

This Specification ensures that system and component OPERABILITY requirements and variable limits are met before entry into MODES or other specified conditions in the Applicability for which these systems and components ensure safe operation of the unit.

(continued)

BASES

SR 3.0.3
(continued)

greater

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

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

The basis for this delay period includes consideration of unit 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 or operational situations, is discovered not to have been performed when specified, SR 3.0.3 allows the full delay period of 24 hours to perform the Surveillance.~~

Insert 1

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

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

Insert 2

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

(continued)

BASES

SR 3.0.3
(continued)

greater

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

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

The basis for this delay period includes consideration of unit 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.

Insert 1

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

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

Insert 2

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

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

(continued)

TSTF-358 REV 5

BASES

SR 3.0.2
(continued)

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

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

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

SR 3.0.3

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

greater

(continued)

BASES

SR 3.0.3
(continued)

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

The basis for this delay period includes consideration of unit 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.

Insert 1 → When a Surveillance with a Frequency based not on time intervals, but upon specified unit conditions or operational situations, is discovered not to have been performed when specified, SR 3.0.3 allows the full delay period of 24 hours to perform the Surveillance.

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

Insert 2 → Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3 is a flexibility which is not intended to be used as an operational convenience to extend Surveillance intervals.

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

(continued)