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**Advanced Passive 1000 (AP1000)  
Generic Technical Specification Traveler (GTST)**

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**Title: Changes Related to SR 3.0, Surveillance Requirement (SR) Applicability**

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**I. Technical Specifications Task Force (TSTF) Travelers, Approved Since Revision 2 of STS NUREG-1431, and Used to Develop this GTST**

**TSTF Number and Title:**

TSTF-359-A, Rev 9, Increase Flexibility in MODE Restraints  
TSTF-434-A, Rev 0, Clarifying SR 3.0.1 Bases to state that Surveillance can be performed in steps

**STS NUREGs Affected:**

TSTF-359-A, Rev 9: NUREGs 1430, 1431, 1432, 1433, and 1434  
TSTF-434-A, Rev 0: NUREGs 1430, 1431, 1432, 1433, and 1434

**NRC Approval Date:**

TSTF-359-A, Rev 9: 12-May-03  
TSTF-434-A, Rev 0: 10-Oct-02

**TSTF Classification:**

TSTF-359-A, Rev 9: Technical Change  
TSTF-434-A, Rev 0: Change Bases

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**II. Reference Combined License (RCOL) Standard Departures (Std. Dep.), RCOL COL Items, and RCOL Plant-Specific Technical Specifications (PTS) Changes Used to Develop this GTST**

**RCOL Std. Dep. Number and Title:**

There are no Vogtle Electric Generating Plant Units 3 and 4 (Vogtle or VEGP) departures applicable to GTS SR 3.0.

**RCOL COL Item Number and Title:**

There are no Vogtle COL items applicable to GTS SR 3.0.

**RCOL PTS Change Number and Title:**

The VEGP License Amendment Request (LAR) proposed the following changes to the initial version of the PTS (referred to as the current TS by the VEGP LAR). These changes include Administrative Changes (A), Detail Removed Changes (D), Less Restrictive Changes (L), and More Restrictive Changes (M). These changes are discussed in Sections VI and VII of this GTST.

VEGP LAR DOC A005: Editorial Corrections

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### **III. Comments on Relations Among TSTFs, RCOL Std. Dep., RCOL COL Items, and RCOL PTS Changes**

This section discusses the considered changes that are: (1) applicable to operating reactor designs, but not to the AP1000 design; (2) already incorporated in the GTS; or (3) superseded by another change.

The justification for TSTF-359 is based on vendor-specific evaluations. For Westinghouse plants, that evaluation is in MUHP-3015, "Qualitative Risk Assessment Supporting Increased Flexibility in Mode Restraints," January 2002. This report evaluated "the key plant changes that occur during the Mode changes so it is possible to identify the initiating events that can occur and systems available for event detection, actuation, and mitigation." It also considered initiating events and equipment available to mitigate those events. Based on that evaluation, Notes were proposed for several systems to prohibit the use of LCO 3.0.4.b. These Notes were applied to LTOP, ECCS-Shutdown, AFW, and AC Sources - Operating. TSTF-359-A also removed existing Notes from the ISTS and revised SR 3.0.4. There is no technical basis for concluding that the analysis performed in support of TSTF-359-A and the high-risk configurations addressed by the Notes are applicable to AP1000 plants. TSTF-359-A is not implemented by this GTST and is deferred for future consideration.

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**IV. Additional Changes Proposed as Part of this GTST (modifications proposed by NRC staff and/or clear editorial changes or deviations identified by preparer of GTST)**

APOG Recommended Changes to Improve the Bases

In SR 3.0.1, fourth line, capitalize “surveillance” for editorial correctness. This is consistent with surveillance being a capitalized term.

In SR 3.0.3, change the first paragraph, fourth line, “which ever” to “whichever” for editorial correctness.

In the Bases for SR 3.0.2, third paragraph, fourth line, change “surveillance” to “Surveillance” for editorial correctness.

In the Bases for SR 3.0.2, fourth paragraph, fifth line, change “remedial action” to “other remedial action” for consistency with other STS NUREGs.

In the Bases for SR 3.0.3, first paragraph, last sentence, remove the comma after “not been performed.” In the second paragraph, third line, change “compliance” to “complying.” In the third paragraph, first line, change “Conditions” to “conditions.” These changes provide editorial correctness and consistency with NUREG-1431.

In the Bases for SR 3.0.3, third paragraph, insert a paragraph break before, “When a Surveillance with a Frequency based not on time intervals.” Change “unit Conditions or operationalituations” to “unit conditions, operatingituations.” In the same paragraph, insert a paragraph break before, “SR 3.0.3 provides a time limit for, and allowances for ...” In the next paragraph, change from single quotes to double quotes around the title of Regulatory Guide 1.182. These changes provide editorial correctness and consistency with NUREG-1431.

In the Bases for SR 3.0.3, penultimate paragraph, lines three and seven, add “the” before “Completion Times.” In the last paragraph, second line, change “specification” to “Specification.” Also on the second line, add a comma after “ACTIONS.” These changes provide editorial correctness and consistency with NUREG-1431.

In the Bases for SR 3.0.4, fifth paragraph, first sentence, change “changes in MODES” to “entry into MODES.” In the second sentence, change “LCO 3.0.4” to “SR 3.0.4.” In the sixth paragraph, eighth line, remove the comma after “Surveillance.” In the eleventh line, change “NOTE” to “Note.” These changes provide editorial correctness and consistency with NUREG-1431 prior to the incorporation of TSTF-359.

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**V. Applicability****Affected Generic Technical Specifications and Bases:**

Section 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

**Changes to the Generic Technical Specifications and Bases:**

The word “Conditions” in SR 3.0.1 is revised to be all lower case. This change is consistent with NUREG-1431, WOG STS Rev. 4. (DOC A005)

The SR 3.0.1 Bases are revised to state that Surveillances may be performed by means of any series of sequential, overlapping, or total steps. It is an accepted practice that any Surveillance can be performed by means of any series of sequential, overlapping, or total steps as long as the entire Surveillance is performed as specified in the TS. (TSTF-434-A)

SR 3.0.1 is revised to capitalize “surveillance” in the fourth line for consistency. (APOG Comment)

SR 3.0.3 is revised for editorial correctness. (APOG Comment)

SR 3.0.2 Bases is revised for editorial correctness and consistency with other STS NUREGs. (APOG Comment)

SR 3.0.3 Bases is revised to provide editorial correctness and consistency with NUREG-1431. (APOG Comment)

SR 3.0.4 Bases is revised to provide editorial correctness and consistency with NUREG-1431 prior to the incorporation of TSTF-359. (APOG Comment)

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## **VI. Traveler Information**

### **Description of TSTF changes:**

The SR 3.0.1 Bases are revised by TSTF-434-A, Rev. 0 to state that Surveillances may be performed by means of any series of sequential, overlapping, or total steps. This reflects an accepted industry practice. However, certain Surveillance related Definitions explicitly state that those Surveillances may be performed by any series of sequential, overlapping, or total steps. This infers that the practice must be explicitly allowed. To avoid confusion, the Bases of SR 3.0.1 are revised to explicitly acknowledge this practice.

### **Rationale for TSTF changes:**

The definitions related to instrument testing, such as CHANNEL CALIBRATION, CHANNEL FUNCTIONAL TEST, and CHANNEL OPERATIONAL TEST, contain a sentence stating that the tests may be performed by means of any series of sequential, overlapping, or total steps. TSTF-205, Rev. 3, which has been approved by the NRC, added this phrase to instrument testing-related definitions from which it had been omitted.

It is an accepted practice that any Surveillance can be performed by means of any series of sequential, overlapping, or total steps as long as the entire Surveillance is performed as specified in the TS. However, the inclusion of explicit allowances to perform CHANNEL CALIBRATIONS, CHANNEL FUNCTIONAL TESTS, and CHANNEL OPERATIONAL TESTS by means of any series of sequential, overlapping, or total steps implies that this allowance is not provided for any other types of surveillances. Without the proposed general clarification to SR 3.0.1, this practice could be construed to be a violation of some SRs.

### **Description of changes in RCOL Std. Dep., RCOL COL Item(s), and RCOL PTS Changes:**

DOC A005 revises SR 3.0.1 by rendering the word "Condition" to all lower case text.

A more detailed description of the changes by each of the above DOCs can be found in Reference 2, VEGP TSU LAR in Enclosure 1; the NRC staff safety evaluation can be found in Reference 3, VEGP LAR SER. The VEGP TSU LAR was modified in response to NRC staff RAIs (Reference 7) by Southern Nuclear Operating Company's RAI Response in Reference 8.

### **Rationale for changes in RCOL Std. Dep., RCOL COL Item(s), and RCOL PTS Changes:**

"Conditions" is initial capitalized when referring to the Action Column heading "Condition." Conditions of the Applicability are not referred to as a "titled" condition. This change is consistent with NUREG-1431 Standard TS.

**Description of additional changes proposed by NRC staff/preparer of GTST:**

The fourth line of SR 3.0.1 is revised to capitalize “surveillance.” (APOG Comment)

The first paragraph, fourth line of SR 3.0.3 is revised from, “which ever” to “whichever.” (APOG Comment)

In the third paragraph, fourth line of the Bases for SR 3.0.2, “surveillance” is revised to “Surveillance.” (APOG Comment)

In the fourth paragraph, fifth line of the Bases for SR 3.0.2, “remedial action” is revised to “other remedial action.” (APOG Comment)

In the first paragraph, last sentence of the Bases for SR 3.0.3, the comma after “not been performed” is removed. In the second paragraph, third line, “compliance” is revised to “complying.” In the third paragraph, first line, “Conditions” is revised to “conditions.” (APOG Comment)

In the third paragraph of the Bases for SR 3.0.3, a paragraph break is inserted before, “When a Surveillance with a Frequency based not on time intervals.” The phrase “unit Conditions or operationala situations” is revised to “unit conditions, operating situations” in the new paragraph. In the same paragraph, a paragraph break is inserted before, “SR 3.0.3 provides a time limit for, and allowances for ...” The single quotes are revised to double quotes around the title of Regulatory Guide 1.182 in the subsequent paragraph. (APOG Comment)

In the penultimate paragraph, lines three and seven of the Bases for SR 3.0.3, “the” is added before “Completion Times.” In the last paragraph, second line, “specification” is revised to “Specification.” Also on the second line, a comma is added after “ACTIONS.” (APOG Comment)

In the fifth paragraph, first sentence of the Bases for SR 3.0.4, “changes in MODES” is revised to “entry into MODES.” In the second sentence, “LCO 3.0.4” is revised to “SR 3.0.4.” In the sixth paragraph, eighth line, the comma after “Surveillance” is removed. In the eleventh line, “NOTE” is revised to “Note.” (APOG Comment)

**Rationale for additional changes proposed by NRC staff/preparer of GTST:**

The revision to SR 3.0.1 provides consistency.

The revision to SR 3.0.3 provides editorial correctness.

The revision to SR 3.0.2 Bases provides consistency.

The revision to SR 3.0.3 Bases provides editorial correctness and consistency with NUREG-1431.

The revision to SR 3.0.4 Bases provides editorial correctness and consistency with NUREG-1431.

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## **VII. GTST Safety Evaluation**

### **Technical Analysis:**

TSTF-434-A documents that Surveillances may be performed by means of any series of sequential, overlapping, or total steps. SR 3.0.1 is established to require that Surveillances be met. The Definitions of the terms “CHANNEL CALIBRATION,” “CHANNEL FUNCTIONAL TEST,” and “CHANNEL OPERATIONAL TEST” contain the sentence, “The [CHANNEL CALIBRATION, CHANNEL FUNCTIONAL TEST, or CHANNEL OPERATIONAL TEST] may be performed by means of any series of sequential, overlapping, or total channel steps.”

It is logical to infer that the inclusion of this statement in those definitions is necessary to allow the corresponding Surveillances to be performed in the manner described. Otherwise, there would be no reason to include the statements in the definitions. It is also logical to infer that the absence of such a qualification means that the allowance to perform other Surveillances in this manner is not available.

However, there is no reason why all Surveillances cannot be performed by means of a series of sequential, overlapping, or total channel steps. Surveillances are routinely performed in overlapping or sequential pieces for reasons such as avoiding the actuation of equipment which should not be run during power operation, improving scheduling and resource management, and reducing plant risk by scheduling when equipment is out of service.

The change to the SR 3.0.1 Bases does not provide any additional flexibility than is routinely assumed to apply currently, but clarifies that the existing practices are acceptable.

The remaining changes are editorial, clarifying, grammatical, or otherwise considered administrative. These changes do not affect the technical content, but improve the readability, implementation, and understanding of the requirements, and are therefore acceptable.

Having found that this GTST’s proposed changes to the GTS and Bases are acceptable, the NRC staff concludes that AP1000 STS Subsection SR 3.0 is an acceptable model Specification for the AP1000 standard reactor design.

### **References to Previous NRC Safety Evaluation Reports (SERs):**

None

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**VIII. Review Information****Evaluator Comments:**

None

Randy Belles  
Oak Ridge National Laboratory  
865-574-0388  
bellesrj@ornl.gov

**Review Information:**

Availability for public review and comment on Revision 0 of this traveler approved by NRC staff on 6/6/2014.

**APOG Comments (Ref. 7) and Resolutions:**

1. (Internal # 6) The GTST sections often repeat VEGP LAR DOCs, which reference “existing” and “current” requirements. The inclusion in the GTST of references to “existing” and “current,” are not always valid in the context of the GTS. Each occurrence of “existing” and “current” should be revised to be clear and specific to GTS, MTS, or VEGP COL TS (or other), as appropriate. Noted ambiguities are corrected in the GTST body.
2. (Internal # 7) Section VII, GTST Safety Evaluation, inconsistently completes the subsection “References to Previous NRC Safety Evaluation Reports (SERs)” by citing the associated SE for VEGP 3&4 COL Amendment 13. It is not clear whether there is a substantive intended difference when omitting the SE citation. This is resolved by removing the SE citation in Section VII of the GTST and ensuring that appropriate references to the consistent citation of this reference in Section X of the GTST are made.
3. (Internal # 11) The GTST incorporates TSTF-359-A, Rev. 9. The justification for TSTF-359 was based on vendor-specific evaluations. For Westinghouse plants, that evaluation was in MUHP-3015, “Qualitative Risk Assessment Supporting Increased Flexibility in Mode Restraints,” January 2002. This report evaluated “the key plant changes that occur during the Mode changes so it is possible to identify the initiating events that can occur and systems available for event detection, actuation, and mitigation.” It also considered initiating events and equipment available to mitigate those events. Based on that evaluation, Notes were proposed for several systems to prohibit the use of LCO 3.0.4.b. These Notes were applied to LTOP, ECCS-Shutdown, AFW, and AC Sources - Operating. TSTF-359-A also removed existing Notes from the ISTS and revised SR 3.0.4. There is no technical basis for concluding that the analysis performed in support of TSTF-359-A and the high-risk configurations addressed by the Notes are applicable to AP1000 plants. Remove TSTF-359-A from the GTST. Include TSTF-359-A in the reference disposition tables, as “TSTF deferred for future consideration”

Note: also reinstate LCO 3.0.4 “not applicable” Notes deleted in various Specifications as a result of incorporating TSTF-359. This is resolved by reversing all changes implemented by the initial application of TSTF-359-A to this GTST.

4. (Internal # 57) In SR 3.0.1, fourth line, capitalize “surveillance” for editorial correctness. This is consistent with surveillance being a capitalized term. This is resolved by making the requested change.
5. (Internal # 58) In SR 3.0.3, change the first paragraph, fourth line, “which ever” to “whichever” for editorial correctness. This is resolved by making the requested change.
6. (Internal # 59) In the Bases for SR 3.0.2, third paragraph, fourth line, change “surveillance” to “Surveillance” for editorial correctness. This is resolved by making the requested change.
7. (Internal # 60) In the Bases for SR 3.0.2, fourth paragraph, fifth line, change “remedial action” to “other remedial action” for consistency with other STS NUREGs. This is resolved by making the requested change.
8. (Internal # 61) In the Bases for SR 3.0.3, first paragraph, last sentence, remove the comma after “not been performed.” In the second paragraph, third line, change “compliance” to “complying.” In the third paragraph, first line, change “Conditions” to “conditions.” These changes provide editorial correctness and consistency with NUREG-1431. This is resolved by making the requested changes.
9. (Internal # 62) In the Bases for SR 3.0.3, third paragraph, insert a paragraph break before, “When a Surveillance with a Frequency based not on time intervals.” Change “unit Conditions or operational situations” to “unit conditions, operating situations.” In the same paragraph, insert a paragraph break before, “SR 3.0.3 provides a time limit for, and allowances for ...” In the next paragraph, change from single quotes to double quotes around the title of Regulatory Guide 1.182. These changes provide editorial correctness and consistency with NUREG-1431. This is resolved by making the requested changes.
10. (Internal # 63) In the Bases for SR 3.0.3, penultimate paragraph, lines three and seven, add “the” before “Completion Times.” In the last paragraph, second line, change “specification” to “Specification.” Also on the second line, add a comma after “ACTIONS.” These changes provide editorial correctness and consistency with NUREG-1431. This is resolved by making the requested changes.
11. (Internal # 64) In the Bases for SR 3.0.4, fifth paragraph, first sentence, change “changes in MODES” to “entry into MODES.” In the second sentence, change “LCO 3.0.4” to “SR 3.0.4.” In the sixth paragraph, eighth line, remove the comma after “Surveillance.” In the eleventh line, change “NOTE” to “Note.” These changes provide editorial correctness and consistency with NUREG-1431 prior to the incorporation of TSTF-359. This is resolved by making the requested changes.

**NRC Final Approval Date:** 12/7/2015

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**NRC Contact:**

Derek Scully  
United States Nuclear Regulatory Commission  
301-415-6972  
Derek.Scully@nrc.gov

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**IX. Evaluator Comments for Consideration in Finalizing Technical Specifications and Bases**

None

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**X. References Used in GTST**

1. AP1000 DCD, Revision 19, Section 16, "Technical Specifications," June 2011 (ML11171A500).
2. Southern Nuclear Operating Company, Vogtle Electric Generating Plant, Units 3 and 4, Technical Specifications Upgrade License Amendment Request, February 24, 2011 (ML12065A057).
3. NRC Safety Evaluation (SE) for Amendment No. 13 to Combined License (COL) No. NPF-91 for Vogtle Electric Generating Plant (VEGP) Unit 3, and Amendment No. 13 to COL No. NPF-92 for VEGP Unit 4, September 9, 2013, ADAMS Package Accession No. ML13238A337, which contains:
  - ML13238A355 Cover Letter - Issuance of License Amendment No. 13 for Vogtle Units 3 and 4 (LAR 12-002).
  - ML13238A359 Enclosure 1 - Amendment No. 13 to COL No. NPF-91
  - ML13239A256 Enclosure 2 - Amendment No. 13 to COL No. NPF-92
  - ML13239A284 Enclosure 3 - Revised plant-specific TS pages (Attachment to Amendment No. 13)
  - ML13239A287 Enclosure 4 - Safety Evaluation (SE), and Attachment 1 - Acronyms
  - ML13239A288 SE Attachment 2 - Table A - Administrative Changes
  - ML13239A319 SE Attachment 3 - Table M - More Restrictive Changes
  - ML13239A333 SE Attachment 4 - Table R - Relocated Specifications
  - ML13239A331 SE Attachment 5 - Table D - Detail Removed Changes
  - ML13239A316 SE Attachment 6 - Table L - Less Restrictive Changes

The following documents were subsequently issued to correct an administrative error in Enclosure 3:

- ML13277A616 Letter - Correction To The Attachment (Replacement Pages) - Vogtle Electric Generating Plant Units 3 and 4-Issuance of Amendment Re: Technical Specifications Upgrade (LAR 12-002) (TAC No. RP9402)
  - ML13277A637 Enclosure 3 - Revised plant-specific TS pages (Attachment to Amendment No. 13) (corrected)
4. TSTF-GG-05-01, "Writer's Guide for Plant-Specific Improved Technical Specifications," June 2005.
  5. RAI Letter No. 01 Related to License Amendment Request (LAR) 12-002 for the Vogtle Electric Generating Plant Units 3 and 4 Combined Licenses, September 7, 2012 (ML12251A355).
  6. Southern Nuclear Operating Company, Vogtle Electric Generating Plant, Units 3 and 4, Response to Request for Additional Information Letter No. 01 Related to License Amendment Request LAR-12-002, ND-12-2015, October 04, 2012 (ML12286A363 and ML12286A360)

7. APOG-2014-008, APOG (AP1000 Utilities) Comments on AP1000 Standardized Technical Specifications (STS) Generic Technical Specification Travelers (GTSTs), Docket ID NRC-2014-0147, September 22, 2014 (ML14265A493).
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**XI. MARKUP of the Applicable GTS Subsection for Preparation of the STS NUREG**

The entire section of the Specifications and the Bases associated with this GTST is presented next.

Changes to the Specifications and Bases are denoted as follows: Deleted portions are marked in strikethrough red font, and inserted portions in bold blue font.

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### 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

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SR 3.0.1            SRs shall be met during the MODES or other specified **conditions** ~~Conditions~~ in the Applicability of individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the **Surveillance** ~~surveillance~~ or between performances of the Surveillance, shall be a 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, which-ever 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.

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3.0 SR Applicability

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SR 3.0.4            Entry into a MODE or other specified condition in the Applicability of ~~an~~ ~~a~~ LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

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

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## B 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

## BASES

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SRs	SR 3.0.1 through SR 3.0.4 establish the general requirements applicable to all Specifications and apply at all times, unless otherwise stated.
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SR 3.0.1	<p>SR 3.0.1 establishes the requirement that SRs must be met during the MODES or other specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual SRs. This Specification ensures that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified Frequency, in accordance with SR 3.0.2, constitutes a failure to meet an LCO. <b>Surveillances may be performed by means of any series of sequential, overlapping, or total steps provided the entire Surveillance is performed within the specified Frequency. Additionally, the definitions related to instrument testing (e.g., CHANNEL CALIBRATION) specify that these tests are performed by means of any series of sequential, overlapping, or total steps.</b></p>
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Systems and components are assumed to be OPERABLE when the associated SRs have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when:

- a. The systems or components are known to be inoperable, although still meeting the SRs; or
- b. The requirements of the Surveillance(s) are known not to be met between required Surveillance performances.

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

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

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## 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 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.

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SR 3.0.2

SR 3.0.2 establishes the requirements for meeting the specified Frequency for Surveillances and any Required Actions 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** ~~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

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BASES

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## SR 3.0.2 (continued)

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.

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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 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 complete Surveillances that have been missed. This delay period permits the completion of a Surveillance before **complying compliance** 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 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.

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## SR 3.0.3 (continued)

When a Surveillance with a Frequency based not on time intervals, but upon specified unit ~~conditions, Conditions or operating~~ operational 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.

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 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.

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BASES

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## SR 3.0.3 (continued)

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**~~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 failure to exercise the good practice of restoring systems or component to OPERABLE status before entering an associated MODE or other specified condition in the Applicability.

However, in certain circumstances, failing to meet an SR will not result in SR 3.0.4 restricting a MODE change or other specified condition change. When a system, subsystem, division, component, device, or variable is inoperable or outside its specified limits, the associated SR(s) are not required to be performed, per SR 3.0.1, which states that surveillances do not have to be performed on inoperable equipment. When equipment is inoperable, SR 3.0.4 does not apply to the associated SR(s) since the requirement for the SR(s) to be performed is removed. Therefore, failing to perform the Surveillance(s) within the specified Frequency does not result in an SR 3.0.4 restriction to changing MODES or other specified conditions of the Applicability. However, since the LCO is not met in this instance, LCO 3.0.4 will govern any restrictions that may (or may not) apply to MODE or other specified condition changes.

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BASES

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## SR 3.0.4 (continued)

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

The precise requirements for performance of SRs are specified such that exceptions to SR 3.0.4 are not necessary. The specific time frames and conditions necessary for meeting the SRs are specified in the Frequency, in the Surveillance, or both. This allows performance of Surveillances when the prerequisite condition(s) specified in a Surveillance procedure require entry into a MODE or other specified condition in the Applicability of the associated LCO prior to the performance or completion of a Surveillance. A Surveillance, that could not be performed until after entering the LCO Applicability, would have its Frequency specified such that it is not "due" until the specific conditions needed are met. Alternately, the Surveillance may be stated in the form of a **Note NOTE** as not required (to be met or performed) until a particular event, condition, or time has been reached. Further discussion of the specific formats of SR's annotation is found in Section 1.4, Frequency.

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

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**XII. Applicable STS Subsection After Incorporation of this GTST's Modifications**

The entire subsection of the Specifications and the Bases associated with this GTST, following incorporation of the modifications, is presented next.

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### 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

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- SR 3.0.1                      SRs shall be met during the MODES or other specified conditions in the Applicability of 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 a 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.
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- 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.
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- 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. 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.
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### 3.0 SR Applicability

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SR 3.0.4            Entry into a MODE or other specified condition in the Applicability of an LCO shall not be made unless the LCO's Surveillances have been met within their specified Frequency. This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

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

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## B 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

## BASES

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SRs	SR 3.0.1 through SR 3.0.4 establish the general requirements applicable to all Specifications and apply at all times, unless otherwise stated.
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SR 3.0.1	<p>SR 3.0.1 establishes the requirement that SRs must be met during the MODES or other specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual SRs. This Specification ensures that Surveillances are performed to verify the OPERABILITY of systems and components, and that variables are within specified limits. Failure to meet a Surveillance within the specified Frequency, in accordance with SR 3.0.2, constitutes a failure to meet an LCO. Surveillances may be performed by means of any series of sequential, overlapping, or total steps provided the entire Surveillance is performed within the specified Frequency. Additionally, the definitions related to instrument testing (e.g., CHANNEL CALIBRATION) specify that these tests are performed by means of any series of sequential, overlapping, or total steps.</p>
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Systems and components are assumed to be OPERABLE when the associated SRs have been met. Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when:

- a. The systems or components are known to be inoperable, although still meeting the SRs; or
- b. The requirements of the Surveillance(s) are known not to be met between required Surveillance performances.

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

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

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BASES

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## 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 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.

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SR 3.0.2

SR 3.0.2 establishes the requirements for meeting the specified Frequency for Surveillances and any Required Actions 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 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

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BASES

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## SR 3.0.2 (continued)

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.

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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 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 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.

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BASES

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## 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.

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 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.

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BASES

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## SR 3.0.3 (continued)

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.

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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 failure to exercise the good practice of restoring systems or component to OPERABLE status before entering an associated MODE or other specified condition in the Applicability.

However, in certain circumstances, failing to meet an SR will not result in SR 3.0.4 restricting a MODE change or other specified condition change. When a system, subsystem, division, component, device, or variable is inoperable or outside its specified limits, the associated SR(s) are not required to be performed, per SR 3.0.1, which states that surveillances do not have to be performed on inoperable equipment. When equipment is inoperable, SR 3.0.4 does not apply to the associated SR(s) since the requirement for the SR(s) to be performed is removed. Therefore, failing to perform the Surveillance(s) within the specified Frequency does not result in an SR 3.0.4 restriction to changing MODES or other specified conditions of the Applicability. However, since the LCO is not met in this instance, LCO 3.0.4 will govern any restrictions that may (or may not) apply to MODE or other specified condition changes.

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BASES

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## SR 3.0.4 (continued)

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

The precise requirements for performance of SRs are specified such that exceptions to SR 3.0.4 are not necessary. The specific time frames and conditions necessary for meeting the SRs are specified in the Frequency, in the Surveillance, or both. This allows performance of Surveillances when the prerequisite condition(s) specified in a Surveillance procedure require entry into a MODE or other specified condition in the Applicability of the associated LCO prior to the performance or completion of a Surveillance. A Surveillance that could not be performed until after entering the LCO Applicability, would have its Frequency specified such that it is not "due" until the specific conditions needed are met. Alternately, the Surveillance may be stated in the form of a Note as not required (to be met or performed) until a particular event, condition, or time has been reached. Further discussion of the specific formats of SR's annotation is found in Section 1.4, Frequency.

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

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