Virgil C. Summer Nuclear Station, Units 2 and 3

Technical Specification Upgrade License Amendment Request

Enclosure 1

Basis for Proposed Change

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1.0 Summary Description

In accordance with the provisions of 10 CFR 50.90 of Title 10 of the Code of Federal Regulations, South Carolina Electric and Gas Company (SCE&G) is submitting a request for amendments to the Technical Specifications (TS), for Virgil C. Summer Nuclear Station, Units 2 and 3 (VCSNS). The proposed amendments update the TS for operator usability that more closely aligns with the form and content of other Improved Standard Technical Specifications NUREGs. Specifically, the changes result in closer alignment with the guidance of the Technical Specifications Task Force (TSTF) Writer's Guide for Plant-Specific Improved Technical Specifications, TSTF-GG-05-01, Revision 1, and with NUREG-1431, Standard Technical Specifications – Westinghouse Plants as updated by NRC approved generic changes.

With the focus on improved operator usability, one of the more extensive changes results in a reformat of TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," and TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," into multiple Specifications. The reformatting addresses inconsistencies in formatting and approach between TS 3.3.1 and TS 3.3.2. Simplification and clarity is proposed for each. In reformatting each current Specification into specific subsets of the Protection and Safety Monitoring System (PMS), improved human factored operator usability results. These improvements reflect the general approach currently in use in the Improved Standard Technical Specifications for Babcock and Wilcox Plants, NUREG 1430. That is, to separate the Functions for instrumentation, Manual Actuation, and Automatic Actuation Logic into separate Specifications. Furthermore, where the Actions for other individual Functions involve generally more complex presentation than other Functions, such that simple common Actions are not reasonable, these Functions are also provided with separate Specifications.

When Instrumentation Function Tables are utilized to reference Actions, the general format of the Specification is to provide the initial Actions that would be common to each Function (typically for bypassing and/or tripping one or two inoperable channels), then the “default” Action (i.e., Action applicable to failure to meet the initial Action[s]) would direct entry into the Table for follow-on Actions applicable to the specific inoperable Function. These follow-up Actions generally reflect the Actions to exit the Applicability for that Function. This format is also consistent with that presented in current TS 3.3.3, “Post Accident Monitoring (PAM) Instrumentation.” As such, there is no new or unusual format reflected; operator usability and general training on use and application are not impacted.

This reformatting eliminates referencing multiple Conditions to be entered for each Function in the Table. Furthermore, this format allows splitting the default Actions from the initial preferred Actions. This general approach is the standard format for other Specifications and for Instrumentation Specifications for other vendors’ Improved Standard Technical Specifications. The current presentation of “OR” –ing the default Required Actions following the initial compensatory Actions often results in options with differing Completion Times. This presentation is cumbersome since the longer Completion Time will always be the actual limitation. The proposed reformatting is consistent with the presentation for similar requirements provided in NUREG-1430, Standard Technical Specifications – Babcock and Wilcox Plants, Revision 3.1

The VCSNS TS markups are annotated with an alphanumeric designator to identify the changes to the TS. The designator corresponds to a Discussion of Change (DOC), which provides the description and justification of the change.

Each proposed change to the TS is classified into one of the following categories:

Designator	Category
A	ADMINISTRATIVE CHANGES - Changes to the TS that do not result in new requirements or change operational restrictions or flexibility. These changes are supported in aggregate by a single generic No Significant Hazards Consideration (NSHC).
M	MORE RESTRICTIVE CHANGES - Changes to the TS that result in added restrictions or reduced flexibility. These changes are supported in aggregate by a single generic NSHC.
R	RELOCATED SPECIFICATIONS - Changes to the TS that relocate Specifications that do not meet the selection criteria of 10 CFR 50.36(c)(2)(ii). These changes are supported in aggregate by a single generic NSHC.
D	DETAIL REMOVED CHANGES - Changes to the TS that eliminate and/or relocate details to licensee-controlled documents. Typically, this involves details of system design and function, parenthetical references, or procedural detail on methods of conducting a Surveillance Requirement. These changes are supported in aggregate by a single generic NSHC.
L	LESS RESTRICTIVE CHANGES - Changes to the TS that result in reduced restrictions or added flexibility. These changes are supported by a specific NSHC evaluation for each DOC

The DOCs are numbered sequentially within each letter designator. Each DOC also includes a cross reference listing of current TS page number where the change is applicable. Enclosure 2, Technical Specification Markup Pages, contains the revised pages that are annotated with each change and each change is labeled with the appropriate DOC number(s). The Enclosure 2 markup pages are provided in current TS page order. However, because the changes proposed for TS 3.3.1 and TS 3.3.2 resulted in reformatting into multiple Specifications, multiple TS 3.3.1 and TS 3.3.2 pages are provided in the markup. "Roadmap" pages for TS 3.3.1 and TS 3.3.2 are provided in Enclosure 2 to direct the reviewer to the appropriate new Specification markup that addresses each portion of the existing TS 3.3.1 and TS 3.3.2.

Other generic acronyms not previously defined that are used in this license amendment request include:

ESF	Engineered Safety Feature
LCO	Limiting Condition for Operation
SR	Surveillance Requirement

2.0 Detailed Descriptions

Detailed descriptions of each change proposed in this request are provided in the DOCs included in Attachments 1 through 5 to this enclosure.

3.0 Technical Evaluations

Technical evaluations of each change are provided in the DOCs included in Attachments 1 through 5 to this enclosure.

4.0 Regulatory Evaluation

4.1 No Significant Hazards Consideration (NSHC)

Attachment 6 contains the determination in accordance with 10 CFR 50.91(a)(1) using the criteria of 10 CFR 50.92(c) to support a finding of no significant hazards consideration for each change. However, due to the significant number of changes associated with the upgrade effort, similar changes have been grouped into the DOC categories presented previously to facilitate the significant hazards evaluations required by 10 CFR 50.92. Generic NSHC evaluations are provided for the Administrative, More Restrictive, Relocation, and Detail Removed categories. Each Less Restrictive change is addressed by a specific NSHC evaluation. Due to the large volume of changes, obvious editorial or administrative changes (e.g., formatting, page rolls, punctuation, etc.) do not always receive a DOC reference number but are considered to be addressed by the applicable generic NSHC evaluation for Administrative changes.

4.2 Applicable Regulatory Requirements/Criteria

Applicable regulatory requirement of 10 CFR 50.36(c)(2)(ii) is that an LCO be established in TS for each item meeting one or more of four criteria. The following changes are relocations of LCO requirements that do not meet the criteria for inclusion.

R1 TS 3.9.5, "Containment Penetrations," is relocated from the VCSNS TS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. The status of containment penetrations during movement of irradiated fuel assemblies within containment is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The Containment Penetrations Specification does not satisfy criterion 1.
2. The status of containment penetrations during movement of irradiated fuel assemblies within containment is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The Containment Penetrations Specification does not satisfy criterion 2.

3. The status of containment penetrations during movement of irradiated fuel assemblies within containment is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The Containment Penetrations Specification does not satisfy criterion 3.
4. The status of containment penetrations during movement of irradiated fuel assemblies within containment was found to be a non-significant risk contributor to core damage frequency and offsite releases. The status of containment penetrations during movement of irradiated fuel assemblies within containment does not contain constraints of prime importance in limiting the likelihood or severity of the accident sequences that are found to be important to public health and safety. The Containment Penetrations Specification does not meet criteria 4.

Therefore, TS 3.9.5 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the TS.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Containment Penetrations Specification during movement of irradiated fuel assemblies within containment may be relocated out of the Technical Specifications. SCE&G commits to relocate the Containment Penetrations during movement of irradiated fuel assemblies within containment Specification, and the associated Bases, to a document that is controlled in accordance with 10 CFR 52.98.

R2 TS 3.9.6, "Containment Air Filtration System (VFS)," is relocated from the VCSNS TS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. The VFS exhaust subsystem is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The VFS exhaust subsystem Specification does not satisfy criterion 1.
2. The VFS exhaust subsystem is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or Transient Analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The VFS exhaust subsystem Specification does not satisfy criterion 2.
3. The VFS exhaust subsystem is not a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The VFS exhaust subsystem Specification does not satisfy criterion 3.

4. The VFS exhaust subsystem was found to be a non-significant risk contributor to core damage frequency and offsite releases. The VFS exhaust subsystem does not contain constraints of prime importance in limiting the likelihood or severity of the accident sequences that are found to be important to public health and safety. The VFS exhaust subsystem does not meet criteria 4.

Therefore, TS 3.9.6 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the TS.

Since the 10 CFR 50.36(c)(2)(ii) criteria are not met, the VFS exhaust subsystem may be relocated out of the Technical Specifications. SCE&G commits to relocate the VFS exhaust subsystem Specification, and the associated Bases, to a document that is controlled in accordance with 10 CFR 52.98.

Certain other changes as discussed in the Attachments to this Enclosure that involve removal or relocation of specific detail within a TS (but not the entire TS LCO) are supported by regulatory commitments, which are summarized in Enclosure 5.

4.3 Precedent

Precedent is identified for the following change:

L02 Current TS 5.6, “Reporting Requirements," is revised to delete TS 5.6.1, “Occupational Radiation Exposure Report,” and TS 5.6.4, “Monthly Operating Reports.” These changes result in the renumbering of TS 5.6 sections, but do not revise technical or administrative requirements. The changes are consistent with NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-369, “Removal of Monthly Operating Report and Occupational Radiation Exposure Report,” Revision 1.

These changes are being made in accordance with the Consolidated Line Item Improvement Process (CLIIP) for NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-369, “Removal of Monthly Operating Report and Occupational Radiation Exposure Report,” Revision 1. SCE&G is not proposing variations or deviations from the NRC staffs model SE published on June 23, 2004 (69 FR 35067).

This change is consistent with the May 19, 2006, Amendment No. 175 to Facility Operating License NPF-12 for the Virgil C. Summer Nuclear Station, Unit No.1.

There are no identified precedents for the other changes in this request.

5.0 Environmental Consideration

The proposed amendment updates the TS for operator usability that more closely aligns with the form and content of other Improved Standard Technical Specifications NUREGs. SCE&G has determined that the proposed amendment would change a requirement with respect to the installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, facility construction and operation following implementation of the proposed amendment does not involve: (i) a significant hazards consideration, (ii) a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, SCE&G evaluation of the proposed amendment has determined that the proposal meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9), in that:

(i) There is no significant hazards consideration.

As discussed in Section 4.1, the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92, “Issuance of amendment.” The Significant Hazards Consideration determined that (1) the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated; (2) the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated; and (3) the proposed amendment does not involve a significant reduction in a margin of safety. Therefore, it is concluded that the proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of “no significant hazards consideration” is justified.

(ii) There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

The proposed amendment updates the TS for operator usability that more closely aligns with the form and content of other Improved Standard Technical Specifications NUREGs. The proposed change does not affect the source term, containment isolation, or radiological release assumptions used in evaluating the radiological consequences of an accident previously evaluated. The changes will not change the as-built configuration of the plant and thus do not introduce any changes to effluent types (e.g., effluents containing chemicals or biocides, sanitary system effluents, and other effluents) or affect any plant radiological or non-radiological effluent release quantities. Furthermore, these changes do not diminish the functionality of any design or operational features that are credited with controlling the release of effluents during plant operation. Therefore, it is concluded that the proposed amendment does not involve a significant change in the types or a significant increase in the amounts of any effluents that may be released offsite.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed amendment updates the TS for operator usability that more closely aligns with the form and content of other Improved Standard Technical Specifications NUREGs. This requested change will not change the as-built configuration of the plant.

These changes do not alter or prevent the ability of structures, systems, and components from performing their intended function, and therefore do not affect plant effluent or radiation controls. Consequently, these changes have no effect on individual or cumulative occupational radiation exposure during plant operation. Therefore, it is concluded that the proposed amendment does not involve a significant increase in individual or cumulative occupational radiation exposure.

Based on the above review of the proposed amendment, SCE&G has determined that the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in the individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment of the proposed amendment is not required.

6.0 References

1. TSTF-GG-05-01, Technical Specifications Task Force (TSTF) Writer's Guide for Plant-Specific Improved Technical Specifications, Revision 1.

2. NUREG-1431, Standard Technical Specifications – Westinghouse Plants.

3. NUREG-1430, Standard Technical Specifications – Babcock and Wilcox Plants.

4. March 19, 2006, Virgil C. Summer Nuclear Station, Unit No.1, Issuance of Amendment Regarding Elimination of Monthly Operating Reports and Certain Annual Reports (TAC NO. MC9155) (Accession No. ML060180034).

5. December 7, 2006 letter from T. J. Kobetz (NRC), Safety Evaluation for TSTF-471, Revision 1, “Eliminate Use Of Term Core Alterations In Actions And Notes” (Accession No. ML062860320).

6. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-006, Rev. 1, “Add Exception for LCO 3.0.7 to LCO 3.0.1.”

7. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-135, Rev. 3, “3.3 - RPS and ESFAS Instrumentation.”

8. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-153, Rev. 0, “Clarify Exception Notes to be Consistent with the Requirement Being Excepted.”

9. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-205, Rev. 3, “Revision of Channel Calibration, Channel Functional Test, and Related Definitions.”

10. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-258, Rev. 4, “Changes to Section 5.0, Administrative Controls.”

11. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-295, Rev. 0, “Modify Note 2 to Actions of PAM Table to Allow Separate Condition Entry for Each Penetration.”

12. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-369, Rev. 1, “Removal of Monthly Operating Report and Occupational Radiation Exposure Report.”

13. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-419, Rev. 0, “Revise PTLR Definition and References in ISTS 5.6.6, RCS PTLR.”

14. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-438, Rev. 0, “Clarify Exception Notes to be Consistent with the Requirement Being Excepted.”

15. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-439, Rev. 2, “Eliminate Second Completion Times Limiting Time From Discovery of Failure To Meet an LCO.”

16. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-471, Rev. 1, “Eliminate use of term CORE ALTERATIONS in ACTIONS and Notes.”

17. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-479, Rev. 0, “Changes to Reflect Revision of 10 CFR 50.55a.”

18. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-497, Rev. 0, “Limit Inservice Testing Program Application to Frequencies of 2 Years or Less.”

19. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler TSTF-491, Rev. 2, “Removal of Main Steam and Main Feedwater Valve Isolation Times From Technical Specifications.”

Attachment 1

Detailed Description of Changes and Technical Evaluations

Administrative Changes

The following changes are designated as Administrative:

DOC / Affected Pages	Detailed Description and Technical Justification
A001	**Detailed Description**
1.1-1 1.1-2 1.1-6	The TS definitions for Actuation Logic Test, Channel Calibration, Channel Operational Test (COT), and Trip Actuating Device Operational Test (TADOT) are revised to reflect standard wording in NUREG-1431, as previously revised by TSTF-205, Revision 3. The phrase in the definition of Actuation Logic Test is revised from : "in conjunction with each possible interlock logic state" ...to add the phrase “required for OPERABILITY of a logic circuit” so that it reads: "in conjunction with each possible interlock logic state required for OPERABILITY of a logic circuit" The first sentence of the definition for Channel Calibration is revised from: "A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel so that it responds within the required range and accuracy to known values of the parameter that the channel monitors." ...to replace “so” with “output such” and to replace “required” with “necessary” so that it reads: "A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors." The phrase in the definition of COT is revised from: "to verify the OPERABILITY of all devices" ...to eliminate the word “the” so that it reads: "to verify OPERABILITY of all devices" The second sentence of the definition for TADOT is revised from: "The TADOT shall include adjustment, as necessary, of the trip actuating device so that it actuates at the required setpoint within the required accuracy." ...to replace “required” with “necessary” so that it reads: "The TADOT shall include adjustment, as necessary, of the trip actuating device so that it actuates at the required setpoint within the necessary accuracy."

Technical Evaluation

As presented in TSTF-205, in a meeting between the NRC and the NEI TSTF on April 17, 1997, the NRC described problems that had been found with the Standard TS definitions of Channel Calibration, Channel Functional Test, and related definitions. The NRC proposed revised definitions for these terms. Based on the NRC's suggestions, revised definitions of these terms were developed.

While many of the changes reflected in TSTF-205 have been included in the AP1000 GTS (and therefore these TS), the above described minor changes were overlooked.

As concluded in TSTF-205, these changes will clarify the requirements and allow for consistent application of the definitions, tests, and calibrations. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A002 Detailed Description

1.1-2 The TS definition of Core Operating Limits Report (COLR) is revised to reflect standard wording in NUREG-1431. The last sentence is revised from:

> "Plant operation within these parameter limits is addressed in individual Specifications."

...to delete the word “parameter” such that it reads:

> "Plant operation within these limits is addressed in individual Specifications."

Technical Evaluation

The editorial deletion of “parameter” establishes consistency with all Improved Standard Technical Specifications NUREGs for all reactor vendor-types. The limits are “cycle specific parameter limits” as the definition states. Concluding the definition with the more generic “these limits” adequately infers the previously stated “cycle specific parameter limits.” This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A003 Detailed Description

1.1-4
5.5-9 The TS references to various Chapters and Sections of the Final Safety Analysis Report (FSAR) are revised to include “FSAR” consistent with standard wording in NUREG-1431.

The definition of Physics Tests, item a, is revised to:

> "Described in Chapter 14, Initial Test Program, of the FSAR"

TS 5.5.9, System Level OPERABILITY Testing Program, second sentence is revised to:

> "specified in FSAR Section 3.9.6 and FSAR Table 3.9-17,"

TS 5.5.10, Component Cyclic or Transient Limit, reference to Table 3.9-1A is revised to include “FSAR.”

Technical Evaluation

The editorial addition of “FSAR” provides clarification and eliminates ambiguity, which facilitates use and application. These changes also result in consistency with Improved Standard Technical Specifications for the same requirements.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A004 Detailed Description

1.1-5 The TS definition for Pressure and Temperature Limits Report (PTLR) is revised to reflect standard wording in NUREG-1431, as previously revised by TSTF-419, Revision 3.

The definition is revised to delete the last sentence that stated:

> "Plant operation within these operating limits is addressed in LCO 3.4.3, “RCS Pressure and Temperature (P/T) Limits” and LCO 3.4.14, “Low Temperature Overpressure Protection (LTOP) System.”"

Technical Evaluation

The sentence being deleted does not provide any requirement or clarification. It is a simple cross-reference to where requirements associated with using the definition are found. Cross-references are judged to be extraneous and excess verbiage that is generally inconsistent with standard TS form and content. Furthermore, the TS that are associated with the use of PTLR limitations are listed in current TS 5.6.6 (new TS 5.6.4), “Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR).”

Deleting the cross-references is editorial and establishes consistency with NUREG-1431. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A005 Detailed Description

LCO 3.0.1 is revised to include an exception for LCO 3.0.7.

3.0-1
3.0-4
3.3.3-1 SR 3.0.1 is revised to make “Conditions” lower case in the phrase “specified Conditions in the Applicability.”

TS 3.3.3, “Post Accident Monitoring (PAM) Instrumentation,” Actions Note 1 is revised to add “is.”

Technical Evaluation

LCO 3.0.1 states “LCOs shall be met during the MODES or other specified conditions in the Applicability, except as provided in LCO 3.0.2.” LCO 3.0.7 was added to NUREG-1431 in Revision 1 to address test exceptions. The current TS also include LCO 3.0.7, which provides exceptions in LCO 3.1.8 for not meeting other TS LCOs. The intent of LCO 3.0.7 is to provide an exception to LCO 3.0.1. Subsequent to including LCO 3.0.7 in NUREG-1431, it was revised by TSTF-006, to add an exception for LCO 3.0.7 to LCO 3.0.1. This clarifying change clarifies the intent of the allowance of LCO 3.0.7 consistent with the presentation in NUREG-1431.

“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.

These changes, and the change correcting the grammar of TS 3.3.3 Actions Note, are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A006 Detailed Description

3.1.2-1 The LCO statement for TS 3.1.2, "Core Reactivity," is revised to delete “normalized” as the modifier to “predicted values;" such that is states: “The measured core reactivity shall be within ±1% Δk/k of the predicted values.”

Technical Evaluation

SR 3.1.2.1 requires an initial beginning of cycle measurement of core reactivity and a comparison to predicted values. “Normalization” is allowed (but not required) up to 60 effective full power days (EFPD) after each fuel loading. The LCO requirement is not intended to be explicitly tied solely to “normalized” predicted values. Even if normalization of predicted values is made, this simply becomes the new predicted value. Therefore, eliminating “normalized” as the modifier to “predicted values” in the LCO statement provides the more appropriate intent and clarifies such as to preclude potential misapplication.

The overall intent of the current LCO and associated SR is considered to be consistent with the proposed revision. The current Bases are consistent with this change. Furthermore, this change results in consistency with the LCO 3.1.2 statement in NUREG-1431. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A007 Detailed Description

3.1.2-2 The second surveillance frequency for TS 3.1.2, "Core Reactivity," SR 3.1.2.1 has a Note that is revised to include the phrase “to be performed"; such that it states: “Only required to be performed after 60 EFPD.”

Technical Evaluation

As described in TSTF-GG-05-01, Section 4.1.7.f, when a Surveillance is noted as "only required" or "not required" it must be accompanied by either "to be met" or "to be performed." The frequency for SR 3.1.2.1 is vague in not explicitly providing the requisite clarifier. "To be performed" is the appropriate intent since the exception is intended solely to convey the timing of the SR performance and not an exception to meeting the core reactivity acceptance criterion. This is appropriately described in the Bases for SR 3.1.2.1.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A008 Detailed Description

3.1.2-2
3.1.3-1
3.1.4-4
3.4.18-2

This following Surveillance Frequencies are being revised to add "Once" as the lead in:

- TS 3.1.2, "Core Reactivity," SR 3.1.2.1 Frequency states: "Prior to entering MODE 1 after each refueling."
- TS 3.1.3, "Moderator Temperature Coefficient (MTC)," SR 3.1.3.1 Frequency states: "Prior to entering MODE 1 after each refueling";
- TS 3.1.4, "Rod Group Alignment Limits," SR 3.1.4.3 Frequency states: "Prior to reactor criticality after each removal of the reactor head, and after each earthquake requiring plant shutdown";
- Current TS 3.4.18, "Steam Generator (SG) Tube Integrity," SR 3.4.18.2 Frequency states: "Prior to entering MODE 4 following a SG tube inspection"

Technical Evaluation

As described in TSTF-GG-05-01, Section 4.1.7.a, the frequency of performance is always implied as "once per" unless otherwise stated. The above frequencies are vague in not explicitly stating "once." TS Section 1.4, Frequency, Example 1.4-2 describes that "The use of 'Once' indicates a single performance will satisfy the specified Frequency."

Since the described SRs do not include the clarifier "once," a potential misreading of the frequency could lead to performance prior to establishing the stated condition (i.e., each entry into Mode 1; each criticality; each entry into Mode 4).

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A009 Detailed Description

3.1.3-2 TS 3.1.3, "Moderator Temperature Coefficient (MTC)," SR 3.1.3.2 is revised as follows:

- The Surveillance Frequency of “Once each cycle” is replaced with Surveillance Notes 1 and 2, which are moved to the Frequency Column and connected with logical connector “AND.”

These Notes are further editorially revised as follows:

- Note 1 lead-in stating
  "Not required to be performed until 7 effective full power days (EFPD) after”
  is revised to
  "Once within 7 effective full power days (EFPD) after ..."
- Note 2 is reworded from:
  "If the MTC is more negative than the 300 ppm Surveillance limit (not LCO limit) specified in the COLR, SR 3.1.3.2 shall be repeated once per 14 EFPD during the remainder of the fuel cycle."
  to:

  "14 EFPD thereafter when MTC is more negative than the 300 ppm Surveillance limit (not LCO limit) specified in the COLR"
- Note 3 becomes the sole note and the lead-in is revised from:
  "SR 3.1.3.2 need not be repeated if..."

  to:

  "Not required to be performed if..."
- Spelling out the acronym for “all rods out (ARO)” is in new SR 3.1.3.2 Note, and use of the acronym only is moved to the Frequency column.

Technical Evaluation

The current stated Frequency for SR 3.1.3.2 of “once each cycle” does not clearly express a specific time during the cycle at which the Surveillance must be performed. Note 1 provides an exception to having to perform the Surveillance within the first 7 effective full power days (EFPD) after reaching the equivalent of an equilibrium rated thermal power (RTP) all rods out (ARO) boron concentration of 300 ppm, and is intended to be the initial required performance. This format is generally reserved for providing conditional period of exception to performance, and not to impose a time limit on performance. Replacing the “once each cycle” Frequency with the required performance intended by Note 1 provides clarity which will avoid the appearance of allowing performance anytime during the cycle. The change to the wording of Note 1 as revised and presented in the Frequency, more clearly imposes the condition as a limitation on when the Surveillance must be performed.

Note 2 imposes a repetitive performance intended to be tied to the Note 1 condition. As a separate Note in the current format, it is not clearly tied to the Note 1 condition. Furthermore, the intended repetitive performance is potentially confusing with the current stated Frequency of “once each cycle.” By moving Note

2 to the Frequency column, combining it with “AND” to the moved Note 1, editorially rewording it to more clearly convey the intent of its association with Note 1, and eliminating the “once each cycle” current Frequency, the overall requirement is presented in a more human factored fashion that is intended to reduce potential misapplication.

The overall intent of the current SR is considered to be consistent with the proposed revision. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A010 Detailed Description

3.1.4-1 The Completion Time for TS 3.1.4, "Rod Group Alignment Limits," Required Action B.1 is revised to swap the order (to list the 1-hour time before the 8-hour time) and replace the “OR” with “AND.” The 8 hour Completion Time is revised to delete “with OPDMS OPERABLE.”

Technical Evaluation

The convention for presentation of Required Actions is to list the shortest Completion Times first. For human-factors considerations, the operator should be presented the more immediate requirements prior to requirements with longer times to complete.

As outlined in TS Section 1.2, Logical Connectors, use of “OR” reflects alternative choices where only one of which must be performed. For TS 3.1.4, Required Action B.1 the Completion Time would not allow an arbitrary choice to be made. While one Completion Time could be more limiting, based on the status of OPDMS, consideration of both Completion Times is appropriate. As such, the appropriate logical connector is “AND.” The proposed 8 hour Completion Time is revised to eliminate “with OPDMS OPERABLE,” which remains consistent with the intent of the current requirements. The change is not deemed to result in any change in implementation requirements.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A011 Detailed Description

3.1.4-1
3.1.4-2
3.1.4-3
3.1.6-1
3.2.1-1
3.2.2-1
3.2.2-3
3.2.3-1
3.2.4-1
3.2.5-1

Various statements referring to “OPDMS OPERABLE” are revised to refer to “OPDMS monitoring parameters.” Various statements referring to “OPDMS inoperable” are revised to refer to “OPDMS not monitoring parameters.” These changes are applied to following current locations:

- TS 3.1.4, “Rod Group Alignment Limits,” LCO Note
- TS 3.1.4, Required Action B.1 Completion Times
- TS 3.1.4, Required Action B.2.4 Note
- TS 3.1.4, Required Action B.2.5 Note
- TS 3.1.6, “Control Bank Insertion Limits,” Applicability Note 2

- TS 3.2.1, “Heat Flux Hot Channel Factor ($F_Q(Z)$) (F_Q Methodology),” Applicability
- TS 3.2.2, “Nuclear Enthalpy Rise Hot Channel Factor ($F^N_{\Delta H}$),” Applicability
- TS 3.2.2, SR 3.2.2.1 Note
- TS 3.2.3, “AXIAL FLUX DIFFERENCE (AFD) (Relaxed Axial Offset Control (RAOC) Methodology),” Applicability
- TS 3.2.4, “QUADRANT POWER TILT RATIO (QPTR),” Applicability
- TS 3.2.5, “On-Line Power Distribution Monitoring System (OPDMS)-Monitored Parameters,” Applicability

In addition, TS 3.1.6, Applicability Note 2 is revised to replace "OPDMS" with "On-Line Power Distribution Monitoring System."

Technical Evaluation

The On-Line Power Distribution Monitoring System (OPDMS) is not safety related and does not have a safety function. OPDMS is an advanced core monitoring and support package. With OPDMS operating, the power distribution parameters are continuously computed and displayed, and compared against their limit. The TS definition of Operable is applied to assure a system is “capable of performing its specified safety function(s).” As such the use of the defined term is not appropriate for the OPDMS. Additionally, there is no requirement for maintaining its non-safety related capability.

The online monitoring capability of OPDMS is utilized when complying with TS 3.2.5, OPDMS-Monitored Parameters. The parameters required to meet LCO 3.2.5 are only applicable when OPDMS is providing the monitoring for compliance with the applicable limits. When OPDMS is not being utilized, the limits of TS 3.1.6, 3.2.1, 3.2.2, 3.2.3, and 3.2.4 are applicable (note that certain Actions of TS 3.1.4 also impose requirements of TS 3.2.1 and 3.2.2 when OPDMS is not being utilized). The current use of “OPERABLE” (and “inoperable”) in referencing whether OPDMS is being utilized, is misleading and is more appropriately revised to “monitoring” (and “not monitoring”).

Replacing "OPDMS" with "On-Line Power Distribution Monitoring System," is consistent with the guidance on use of acronyms provided in TSTF-GG-05-01, subsection 3.2.2.a. "OPDMS" is not defined in TS 3.1.6 prior to its use in Note 2.

The proposed wording change continues to provide appropriate TS controls with no change in implementation requirements. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A012 Detailed Description

3.1.6-1 TS 3.1.6, "Control Bank Insertion Limits," Required Action A.2 requirement stating “Restore control bank(s) to within limits” is revised to “Restore control bank(s) to within insertion limits” (adding “insertion”).

Technical Evaluation

LCO 3.1.6 imposes requirements for “insertion, sequence, and overlap limits.”

Condition B is Applicable to sequence and overlap limits, and its Required Action B.2 clearly establishes the requirement to restore sequence and overlap limits. Condition A is applicable only to “insertion” limits, however, its Required Action A.2 is inconsistent in requiring restoration of limits; implying all limits. The restoration action is intended to align with correcting the Condition. As such, the intent of Required Action A.2 is that the restoration be of insertion limits.

There is no change in the intent by adding the clarification of “insertion” to Required Action A.2. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A013 Detailed Description

3.1.6-1
3.1.6-2

TS 3.1.6, "Control Bank Insertion Limits," Required Actions (A.1.2 and B.1.2) stating “Initiate boration to restore SDM to within limit” are revised to make “limit” plural (i.e., “limits”).

Technical Evaluation

The alternative Required Actions A.1.1 and B.1.1 immediately preceding Required Actions A.1.2 and B.1.2 reference SDM “limits” (i.e., plural). For consistency the reference is also made plural in the optional Required Actions. There is no change in the implementation of the requirement for SDM to meet limits specified in the COLR. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A014 Detailed Description

3.1.7-3

TS 3.1.7, "Rod Position Indication," SR 3.1.7.1 Frequency states: “Prior to criticality after each removal of the reactor head.” This frequency is being revised to add “Once” as the lead in.

Technical Evaluation

As described in the TSTF-GG-05-01, Section 4.1.7.a, the frequency of performance is always implied as "once per" unless otherwise stated. The frequency for SR 3.1.7.1 is vague in not explicitly stating “once.” TS Section 1.4,

Frequency, Example 1.4-2 describes that “The use of ‘Once’ indicates a single performance will satisfy the specified Frequency.”

Since SR 3.1.7.1 does not include the clarifier “once,” a potential misreading of the frequency could lead to performance prior to each criticality after removal of the reactor head.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and

are acceptable because they do not result in technical changes to the TS.

A015 Detailed Description

3.1.8-1 TS 3.1.8, "PHYSICS TESTS Exceptions - Mode 2," Condition A and Required Action A.1 requirements related to SDM “within limit” are revised to make “limit” plural (i.e., “limits”).

Technical Evaluation

LCO 3.1.8.b and SR 3.1.8.4 require SDM to be within “limits” (i.e., plural). For consistency the reference to the SDM requirement is also made plural in Condition A and Required Action A.1. These changes are consistent with TSTF-GG-05-01, subsection 4.1.6.f guidance on the use of "within limits" in Condition and Required Actions statements. These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A016 Detailed Description

3.1.9-1
3.1.9-2 TS 3.1.9, "Chemical and Volume Control System (CVS) Demineralized Water Isolation Valves and Makeup Line Isolation Valves," uses the term "makeup line isolation" in numerous locations. Specifically, LCO 3.1.9, Condition A (two locations), Required Action A.1, Condition B (one location), and SR 3.1.9.1. This term is changed to "CVS makeup line isolation" in all locations.

Condition B, first Condition states "Required Action and associated Completion Time of Condition not met." This Condition is revised to be "Required Action and associated Completion Time of Condition A not met."

Required Action B.1, in part, states to "Isolate the flow path ...." Required Action B.1 is changed to state "Isolate the affected flow path(s)...."

Technical Evaluation

The change to Condition A, Required Action A.1, Condition B and SR 3.1.9.1 provides clarification that the valves are the CVS valves.

The change to the first Condition of Condition B is made for consistency with TSTF-GG-05-01, subsection 4.1.6.i.5.ii, which states to use a listing of applicable Conditions if the Condition is entered for failure of only some of the Required Actions.

The change to Required Action B.1 is also made since the Action could apply to multiple flow paths at the same time. This is clearly identified in the Note to the Required Action, which uses the term "flow path(s)."

These changes are designated as administrative changes and are acceptable

because they do not result in any technical changes to the TS.

A017 Detailed Description

3.1.9-1
3.1.9-2

TS 3.1.9, "Chemical and Volume Control System (CVS) Demineralized Water Isolation Valves and Makeup Line Isolation Valves," includes a Note to Required Action B.1 that states "Flow path(s) may be unisolated intermittently under administrative controls." This Note is moved to the beginning of the Actions Table.

Technical Evaluation

This change is made to provide more consistency with other Notes of this type in other isolation valve TS where this Note is most commonly located at the beginning of the Actions Table. For example, TS 3.6.3, "Containment Isolation Valves," includes this type of Note at the beginning of the Actions Table. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A018 Detailed Description

3.2.1-3
3.2.1-4

TS 3.2.1, "Heat Flux Hot Channel Factor ($F_Q(Z)$) (F_Q Methodology)," SR 3.2.1.1 and SR 3.2.1.2 each have three Frequencies, which require verification of $F_Q^W(Z)$ [for SR 3.2.1.1] and $F_Q^C(Z)$ [for SR 3.2.1.2] limits:

"Once after each refueling prior to THERMAL POWER exceeding 75% RTP

<u>AND</u>

Once within 12 hours after achieving equilibrium conditions after exceeding, by ≥ 10% RTP, the THERMAL POWER at which [$F_Q^C(Z)$][$F_Q^W(Z)$] was last verified

<u>AND</u>

31 effective full power days (EFPD) thereafter"

SR 3.2.1.1 and SR 3.2.1.2 are revised to split each of them into two Surveillances; one pair of SRs with the “Once after each refueling prior to THERMAL POWER exceeding 75% RTP” Frequency (i.e., new SR 3.2.1.1 and SR 3.2.1.2), and the remaining pair of SRs with the remaining two Frequencies (i.e., new SR 3.2.1.3 and SR 3.2.1.4).

Currently, there are two Notes applicable to both SR 3.2.1.1 and SR 3.2.1.2, which state:

"1. During power escalation at the beginning of each cycle, THERMAL POWER may be increased until a power level for extended operation has been achieved at which a power distribution map is obtained."

"2. If the OPDMS becomes inoperable while in MODE 1 these surveillances must be performed within 31 days of the last verification of OPDMS

parameters."

The existing Note 1 is replaced as follows: the new SRs 3.2.1.1 and 3.2.1.2 with the “Once after each refueling prior to THERMAL POWER exceeding 75% RTP” Frequency, will include a new Note stating:

"Not required to be performed if OPDMS was monitoring parameters upon exceeding 75% RTP."

Existing Note 2 will not be applied to new SRs 3.2.1.1 and 3.2.1.2, and existing Note 1 will not be applied to new SRs 3.2.1.3 and 3.2.1.4. However, for new SRs 3.2.1.3 and 3.2.1.4, existing Note 2 is reworded as SR 3.2.1.3 Note and SR 3.2.1.4 Note 1 stating:

"Not required to be performed until 31 days after the last verification of OPDMS parameters."

Current SR 3.2.1.2 Note will not be included with new SR 3.2.1.2 and is renumbered as Note 2 in new SR 3.2.1.4.

Technical Evaluation

TS 3.2.1, and therefore its SRs, is currently only applicable when the Online Power Distribution Monitoring System (OPDMS) is “inoperable” (revised to “not monitoring parameters”). (Note that references to OPDMS "OPERABLE" and "inoperable" throughout TS are revised to "monitoring parameters" and "not monitoring parameters," respectively, as discussed in DOC A011. Therefore, the remainder of this justification will refer to "monitoring parameters" and "not monitoring parameters" in lieu of "OPERABLE" and "inoperable," respectively, except where current requirements are explicitly quoted.)

In accordance with SR 3.0.1, SRs are required to be met when the TS is applicable, i.e., immediately on OPDMS not monitoring parameters, and failure to perform a Surveillance within the specified Frequency is a failure to meet the LCO and would constitute a violation of SR 3.0.4. As such, the TS 3.2.1 SRs must be stated such that they are "required to be performed" only after an appropriate allowance when OPDMS was not monitoring and/or is no longer monitoring parameters.

The Surveillance Frequency “Once after each refueling prior to THERMAL POWER exceeding 75% RTP” for proposed SRs 3.2.1.1 and 3.2.1.2 is associated solely with the beginning of cycle startup after a refueling and would have a unique exception related to whether OPDMS was monitoring parameters or not. As described in the current TS 3.2.1 Bases, the existing SRs Note 1 applies to the situation where the OPDMS is inoperable at the beginning of cycle startup after a refueling allowing an equilibrium power level to be achieved at which time a power distribution map can be obtained. The proposed replacement Note will exclude the initial post-refueling flux map and verification of $F_Q(Z)$ when that startup was performed with OPDMS monitoring its associated parameters as power is increased above 75% RTP. If OPDMS ceases to monitor parameters at some point after initial power escalation above 75%, it would be inappropriate to consider this SR not performed and therefore the LCO not met. Appropriate core

monitoring was provided for the transition above 75% RTP, and further $F_Q(Z)$ monitoring is adequately addressed by proposed SRs 3.2.1.3 and 3.2.1.4. This is an explicit clarification of the intent of the current stated Frequency and the current SR Note 1 as outlined in the Bases. Therefore, this change is deemed an administrative clarification with no resultant technical change to the current TS.

The Frequencies that are split out into proposed SRs 3.2.1.3 and 3.2.1.4 relate to the periodic verification that is appropriate without the continuous monitoring capability of OPDMS. Additionally, verification is required following a power increase and subsequent equilibrium condition which is more than 10% RTP above the prior verification. This will ensure that $F_Q(Z)$ is verified as soon as RTP (or any other level for extended operation) is achieved. The current SR Note 2 provides an explicit 31-day exception to performing the Surveillance (i.e., for not meeting these Frequencies) when OPDMS is initially not monitoring parameters. The rewording of this allowance in revised SR 3.2.1.3 Note and SR 3.2.1.4 Note 1 provides the same intent, but is worded in accordance with TSTF-GG-05-01, subsection 4.1.7.f and 4.1.7.g. Therefore, this change is deemed an administrative clarification with no resultant technical change to the current TS.

Current SR 3.2.1.2 Note details requirements when one measurement has increased over a previous measurement. Since the Frequency of “Once after each refueling prior to THERMAL POWER exceeding 75% RTP” is a first performance requirement, there would be no previous measurement to compare to. As such, not including the current SR 3.2.1.2 Note in the split out revised SRs 3.2.1.1 and 3.2.1.2, which contain the first performance Frequency, will not be included with new SR 3.2.1.2.

Note that certain Required Actions specify performance of current SR 3.2.1.1 and SR 3.2.1.2 (i.e., TS 3.1.4 Required Action B.2.4; TS 3.2.1 Required Action A.4; TS 3.2.1 Required Action B.4; TS 3.2.4 Required Action A.3; and TS 3.2.4 Required Action A.6). Current SR 3.2.1.1 and SR 3.2.2 require verification of $F_Q^C(Z)$ and $F_Q^W(Z)$, respectively. These verifications are consistent with the new TS 3.2.1 SRs. The new SR 3.2.1.3 and SR 3.2.1.4 similarly require the same verifications. The differences being associated with performance timing Frequencies and Notes; however, when directed by other Required Actions, those Frequencies are not applicable. Continuing to specify only new SR 3.2.1.1 and SR 3.2.1.2 in these Required Actions retains the current intent and requirements.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A019 Detailed Description

3.2.2-3 TS 3.2.2, "Nuclear Enthalpy Rise Hot Channel Factor ($F_{\Delta H}^N$)," SR 3.2.2.1 has two Frequencies, which require verification of $F_{\Delta H}^N$ limits:

"Once after each refueling prior to THERMAL POWER exceeding 75% RTP

<u>AND</u>

31 effective full power days (EFPD) thereafter"

SR 3.2.2.1 is revised to split into two Surveillances; one with the “Once after each refueling prior to THERMAL POWER exceeding 75% RTP” Frequency (i.e., new SR 3.2.2.1), and the other with the remaining Frequency of 31 EFPD (deleting “thereafter”) (i.e., new SR 3.2.2.2).

Currently, SR 3.2.2.1 is modified by a Note, which states:

"If the OPDMS becomes inoperable while in MODE 1 these Surveillances must be performed within 31 days of the last verification of OPDMS parameters."

This Note is replaced for new SR 3.2.2.1 by including a Note stating:

"Not required to be performed if OPDMS was monitoring parameters upon exceeding 75% RTP."

This Note is replaced for new SR 3.2.2.2 by including a Note stating:

"Not required to be performed until 31 days after the last verification of OPDMS parameters."

Technical Evaluation

TS 3.2.2, and therefore its SR, is currently only applicable when the Online Power Distribution Monitoring System (OPDMS) is “inoperable” (revised to “not monitoring parameters”). (Note that references to OPDMS "OPERABLE" and "inoperable" throughout TS are revised to "monitoring parameters" and "not monitoring parameters," respectively, as discussed in DOC A011. Therefore, the remainder of this justification will refer to "monitoring parameters" and "not monitoring parameters" in lieu of "OPERABLE" and "inoperable," respectively, except where current requirements are explicitly quoted.)

In accordance with SR 3.0.1, SRs are required to be met when the TS is applicable, i.e., immediately on OPDMS not monitoring parameters, and failure to perform a Surveillance within the specified Frequency is a failure to meet the LCO and would constitute a violation of SR 3.0.4. As such, the TS 3.2.2 SRs must be stated such that they are "required to be performed" only after an appropriate allowance when OPDMS was not monitoring and/or is no longer monitoring parameters.

The Surveillance Frequency “Once after each refueling prior to THERMAL POWER exceeding 75% RTP” for proposed SR 3.2.2.1 is associated solely with the beginning of cycle startup after a refueling. It currently has no exception related to whether OPDMS was monitoring parameters or not during the escalation above 75%. As such, if OPDMS ceased to monitor parameters (i.e., when TS 3.2.2 becomes applicable) at some point after initial power escalation above 75%, this SR 3.2.2.1 would not have been performed and it could be interpreted as not meeting SR 3.0.1.

The Note included with revised SR 3.2.2.1 will exclude this required performance when that startup was performed with OPDMS monitoring its associated parameters as power is increased above 75% RTP. It would be inappropriate to consider this SR not performed and therefore the LCO not met when appropriate

core monitoring was provided for the transition above 75% RTP. This is an explicit clarification of the intent. Therefore, this change is deemed an administrative clarification with no resultant technical change to the current TS.

The second Frequency that is split out into proposed SR 3.2.2.2 relates to the periodic verification that is appropriate without the continuous monitoring capability of OPDMS. The current SR 3.2.2.1 Note provides an explicit 31-day exception to performing the Surveillance (i.e., for not meeting these Frequencies) when OPDMS is initially not monitoring parameters. The rewording of this allowance in revised SR 3.2.2.1 Note provides the same intent, but is worded in accordance with TSTF-GG-05-01, subsection 4.1.7.f and 4.1.7.g.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A020 Detailed Description

3.2.3-1 TS 3.2.3, "AXIAL FLUX DIFFERENCE (AFD) (Relaxed Axial Offset Control (RAOC) Methodology)," SR 3.2.3.1 is revised to include a new Note stating:

> "Not required to be performed until 7 days after the last verification of OPDMS parameters."

Technical Evaluation

TS 3.2.3, and therefore its SR, is currently only applicable when the Online Power Distribution Monitoring System (OPDMS) is “inoperable” (revised to “not monitoring parameters”). (Note that references to OPDMS "OPERABLE" and "inoperable" throughout TS are revised to "monitoring parameters" and "not monitoring parameters," respectively, as discussed in DOC A011. Therefore, the remainder of this justification will refer to "monitoring parameters" and "not monitoring parameters" in lieu of "OPERABLE" and "inoperable," respectively, except where current requirements are explicitly quoted.)

In accordance with SR 3.0.1, SRs are required to be met when the TS is applicable, i.e., immediately on OPDMS not monitoring parameters, and failure to perform a Surveillance within the specified Frequency is a failure to meet the LCO and would constitute a violation of SR 3.0.4. As such, the TS 3.2.3 SR must be stated such that it is "required to be performed" only after an appropriate allowance when OPDMS was not monitoring and/or is no longer monitoring parameters.

Current SR 3.2.3.1 does not provide an explicit exception to performing the Surveillance (i.e., for not meeting these Frequencies) when OPDMS is initially not monitoring parameters. The inclusion of an allowance in the new Note for SR 3.2.3.1 provides the same intent that existed for the SRs in TS 3.2.1 and TS 3.2.2, but was inadvertently omitted from the SR for TS 3.2.3. Since OPDMS had been verifying core parameters, including core peaking factor, at the time it ceases to monitor it is reasonable to assume that the AFD would be within limits. As such, applying the periodic verification Frequency for AFD (i.e., 7 days) for

allowing the initial performance of SR 3.2.3.1 is appropriate. Additionally, as noted in the SR 3.2.3.1 Bases, the AFD is monitored by a computer and any deviation from requirements is alarmed.

Since the intent to presume core parameters are within limits at the time of ceasing to monitor via OPDMS is seen in TS 3.2.1 and TS 3.2.2, it is consistent to assume AFD is also within limits at this time. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A021 Detailed Description

3.2.4-3 TS 3.2.4, "QUADRANT POWER TILT RATIO (QPTR)," SRs are revised to include a new Note stating:

> "Not required to be performed until 12 hours after the last verification of OPDMS parameters."

Technical Evaluation

TS 3.2.4, and therefore its SRs, is currently only applicable when the Online Power Distribution Monitoring System (OPDMS) is “inoperable” (revised to “not monitoring parameters”). (Note that references to OPDMS "OPERABLE" and "inoperable" throughout TS are revised to "monitoring parameters" and "not monitoring parameters," respectively, as discussed in DOC A011. Therefore, the remainder of this justification will refer to "monitoring parameters" and "not monitoring parameters" in lieu of "OPERABLE" and "inoperable," respectively, except where current requirements are explicitly quoted.)

In accordance with SR 3.0.1, SRs are required to be met when the TS is applicable, i.e., immediately on OPDMS not monitoring parameters, and failure to perform a Surveillance within the specified Frequency is a failure to meet the LCO and would constitute a violation of SR 3.0.4. As such, the TS 3.2.4 SRs must be stated such that they are "required to be performed" only after an appropriate allowance when OPDMS was not monitoring and/or is no longer monitoring parameters.

Current TS 3.2.4 SRs do not provide an explicit exception to performing the Surveillances (i.e., for not meeting these Frequencies) when OPDMS is initially not monitoring parameters. The inclusion of an allowance in the new Note for TS 3.2.4 SRs provides the same intent that existed for the SRs in TS 3.2.1 and TS 3.2.2, but was inadvertently omitted from the SRs for TS 3.2.4. Since OPDMS had been verifying core parameters at the time it ceases to monitor it is reasonable to assume that the QPTR would be within limits. As such, applying the allowed Frequency for the QPTR surveillance SR 3.2.4.2 (i.e., 12 hours) for allowing the initial performance of the TS 3.2.4 SRs is appropriate.

Since the intent to presume core parameters are within limits at the time of ceasing to monitor via OPDMS is seen in TS 3.2.1 and TS 3.2.2, it is consistent to assume QPTR is within limits at this time also. This change is designated as an

administrative change and is acceptable because it does not result in technical changes to the TS.

A022 Detailed Description

3.2.5-1 TS 3.2.5, "On-Line Power Distribution Monitoring System (OPDMS)-Monitored Parameters," LCO Item 'a' lists "Peak kw/ft(Z)" as a required parameter. This is revised to "Peak Linear Power Density."

Technical Evaluation

The stated "kw/ft(Z)" is a reference to the units for the monitored linear power density. The Bases discuss this parameter and the associated units. For clarity and consistency with other stated parameters, the revision replaces the units "kw/ft(Z)" with "Linear Power Density.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A023 Detailed Description

3.2.5-1 TS 3.2.5, "On-Line Power Distribution Monitoring System (OPDMS)-Monitored Parameters," Required Action B.1 Note is deleted. This note currently states:

> "If the power distribution parameters are restored to within their limits while power is being reduced, operation may continue at the power level where this occurs."

Technical Evaluation

LCO 3.2.5 lists four parameters to be maintained within limits. The Actions apply when one of the parameters is not within its limits, i.e., not meeting the LCO. Action B is associated with one of three parameters being not within LCO limits and not restored within the 1 hour allowance of Action A. Required Action B.1 requires reducing power to $\leq$ 50% RTP.

TS LCO 3.0.2 states, in part, "If the LCO is met, or is no longer applicable prior to expiration of the specified Completion Time(s), completion of the Required Action(s) is not required." As a result of restoring the parameters associated with Action B to within limits, TS 3.2.5 Action B would be exited. Once Action B is exited, the Required Action B.1 Note will no longer apply.

Furthermore, once the action to reduce power is exited, there is no restriction from TS 3.2.5 on operating power level. As such, the intent of the Required Action B.1 Note allowing "If the power distribution parameters are restored to within their limits while power is being reduced, operation may continue at the power level where this occurs" is extraneous and can be deleted with no impact. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A024 Detailed Description

3.1.8-1
3.1.8-2
3.3.1-1
through
3.3.1-15
3.3.5-1

TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," is reformatted into multiple Specifications as follows:

- 3.3.1, “Reactor Trip System (RTS) Instrumentation”;
- 3.3.2, “Reactor Trip System (RTS) Source Range Instrumentation”;
- 3.3.3, “Reactor Trip System (RTS) Intermediate Range Instrumentation”;
- 3.3.4, “Reactor Trip System (RTS) Engineered Safety Feature Actuation System (ESFAS) Instrumentation”;
- 3.3.5, “Reactor Trip System (RTS) Manual Actuation”;
- 3.3.6, “Reactor Trip System (RTS) Automatic Trip Logic”; and
- 3.3.7, “Reactor Trip System (RTS) Trip Actuation Devices.

Note that the markup of the current TS accompanying this License amendment request provides eight separate markups of current TS 3.3.1 – one for each of the seven reformatted new TS and the first one representing a "roadmap" of where various items from current TS 3.3.1 are being reformatted into the new TS. This "roadmap" provides no actual revisions, but right-hand margin labels indicate where specific new TS address the current requirements – often a current requirement is common to more than one new TS.

Reformatting current TS 3.3.1 results in various renumbering changes, which are not listed here for brevity.

TS 3.1.8, "PHYSICS TESTS Exceptions – MODE 2," LCO listing of current TS 3.3.1 Functions 2, 3, 6, and 16.b is revised to list new Functions 1, 2, and 3 (current Function 16.b is removed per DOC A033). Additionally, SR 3.1.8.1 requirement “on power range and intermediate range channels per SR 3.3.1.8 and SR 3.3.1.9” is revised to accurately reflect power range and intermediate range channel nomenclature and to reflect changes in referenced SR numbering.

Technical Evaluation

The reformatting, except where addressed in other Discussion of Changes, addresses inconsistencies in formatting and approach between current TS 3.3.1 and TS 3.3.2. Simplification and clarification are proposed for each. In breaking down each current Specification into specific subsets of the Protection and Safety Monitoring System (PMS) function, improved human factored operator usability results.

These improvements also reflect the general approach currently in use in the Improved Standard Technical Specifications for Babcock and Wilcox Plants, NUREG-1430. That is to separate the functions for instrumentation, Manual Actuation, Trip Logic, and Trip Actuation Devices (i.e., Reactor Trip Breakers (RTBs)) into separate Specifications. Furthermore, where the Actions for other individual Functions involve generally more complex presentation than other Functions, such that simple common Actions are not reasonable, these Functions are also provided with separate Specifications.

When Instrumentation Function Tables are utilized to reference Actions, the

general format of the Specification is to provide the initial Actions that would be common to each Function (typically for bypassing and/or tripping one or two inoperable channels), then the "default" Action (i.e., Action applicable to failure to meet the initial Action(s)) would direct entry into the Table for follow-on Actions applicable to the specific inoperable Function. These follow-up Actions generally reflect the actions to exit the Applicability for that Function. This format is also consistent with that presented in current TS 3.3.3, Post Accident Monitoring Instrumentation. As such, there is no new or unusual format reflected; operator usability and general training on use and application are not impacted.

This format also allows splitting the default Actions from the initial preferred actions. This general approach is the standard format for other Specifications and for Instrumentation Specifications for other vendors' Improved Standard Technical Specifications. The current presentation of "OR" –ing the default Required Actions following the initial compensatory actions often results in options with differing Completion Times. This presentation is cumbersome since the longer Completion Time will always be the actual limitation.

<u>New TS 3.3.1, Reactor Trip System (RTS) Instrumentation</u>

New TS 3.3.1 retains most of the automatic RTS actuation Functions, i.e., those that have a common 6-hour allowance for bypassing and/or tripping one and two inoperable channels. The remaining automatic Functions not retained in TS 3.3.1 are addressed following the discussion of new TS 3.3.1.

Current TS Actions E and K contain common Required Actions for bypassing and/or tripping one and two inoperable channels. As such, they are presented once in new Actions A and B. This reformatting also provides one Action for one inoperable channel (Action A) and a separate Action for two inoperable channels (Action B). Current Required Actions E.1.2 and K.1.2 each contain two actions (i.e., bypass one channel and trip the other channel) not currently separated with the appropriate logical connector. The reformatting splits these Required Actions into New Required Action B.1 and B.2, which also addresses TSTF-GG-05-01, subsection 4.1.6.i.1, for separating discrete items within actions.

Current Action A is revised to new Action C to direct entry into Table 3.3.1-1 for identifying the default Action associated with the inoperable Function(s) when inoperable channels were not bypassed and/or tripped in the required time, or as addressed in DOC M02, when one or more Functions has three or more inoperable channels.

The current default Required Actions of E.2 and K.2 are reformatted as Actions D and E. The reformatted Completion Time is expressed as "6 hours" since the initial 6 hours is provided in new Actions A and B, which combined maintain the current 12 hour allowance.

The other current TS 3.3.1 Actions are reformatted into other TS as appropriate for current Table 3.3.1-1 Functions that are reformatted into new Specifications. Current Actions D and M are deleted as discussed in DOC L08 and DOC L10. SRs not referenced in new Table 3.3.1-1 for retained Functions are similarly reformatted into other TS as indicated in the mark-ups.

Current SR 3.3.1.8 (renumbered as new SR 3.3.1.6 for TS 3.3.1) contains a Note that is applicable solely to Source Range instrumentation. As such, that provision is administratively not retained in TS 3.3.1.

Current SR 3.3.1.9 is associated with three RTS Functions: Power Range Neutron Flux, Intermediate Range Neutron Flux, and Source Range Neutron Flux High Setpoint. However, only the Power Range Neutron Flux Function is retained in reformatted TS 3.3.1. Since the current SR 3.3.1.9 (renumbered for new TS 3.3.1 as SR 3.3.1.7) contains provisions in the Note and Frequencies applicable solely to the Intermediate Range Neutron Flux, and Source Range Neutron Flux High Setpoint Functions, those provisions are not required in new SR 3.3.1.7. Interlock P-6 is not applicable to Power Range Neutron Flux channels and therefore not stating those provisional details in new SR 3.3.1.7 is administrative. The editorial changes to new SR 3.3.1.7 to replace “Four” with “4” and delete “Every” corrects conventions for Frequency presentation consistent with TSTF-GG-05-01, subsections 3.3.3.a.3 and 4.1.7.a.

<u>New TS 3.3.2, Reactor Trip System (RTS) Source Range Instrumentation</u>

The reformatting of current Table 3.3.1-1, Function 5, Source Range Neutron Flux High Setpoint, into new TS 3.3.2 simplifies the Specification without utilizing a Table. Requirements for this Function currently in Table 3.3.1-1 (and not addressed with other Discussion of Changes) are reformatted into new TS 3.3.2. Details of the Function name and number of Required Channels are reformatted to the LCO Statement. The Applicable Modes or Other Specified Conditions are reformatted into the Applicability statement. Actions Note is not applicable since this Specification is for only one Function and is therefore deleted.

Current Actions I and J are reformatted as new TS 3.3.2 Actions C and F, respectively, while current Action Q is reformatted and split as new TS 3.3.2, Actions D and E.

Current SR 3.3.1.8 requires the same Surveillance as current SR 3.3.1.9; the differences being related to various Notes and Frequency differences. However, for new TS 3.3.2, all the Source Range instrumentation requirements are reformatted into new SR 3.3.2.2 by reformatting current SR 3.3.1.8 Note as new SR 3.3.2.2 Note 2. There is no technical change in this administrative reformatting.

Current SR 3.3.1.9 is associated with three RTS Functions: Power Range Neutron Flux, Intermediate Range Neutron Flux, and Source Range Neutron Flux High Setpoint. However, only the Source Range Neutron Flux Function is retained in reformatted TS 3.3.2. Since the current SR 3.3.1.9 (renumbered for new TS 3.3.2 as SR 3.3.2.2) contains a Frequency applicable solely to the Power Range and Intermediate Range Neutron Flux, that Frequency is not required in new SR 3.3.2.2. Additionally, the editorial changes to new SR 3.3.2.2 to replace “Four” with “4” and delete “Every” corrects conventions for Frequency presentation consistent with TSTF-GG-05-01, subsections 3.3.3.a.3 and 4.1.7.a.

<u>New TS 3.3.3, Reactor Trip System (RTS) Intermediate Range Instrumentation</u>

The reformatting of current Table 3.3.1-1, Function 4, Intermediate Range Neutron Flux, into new TS 3.3.3 simplifies the Specification without utilizing a Table.

Requirements for this Function currently in Table 3.3.1-1 (and not addressed with other Discussion of Changes) are reformatted into new TS 3.3.3. Details of the Function name and number of Required Channels are reformatted to the LCO Statement. The Function name is revised to be consistent with the description in FSAR Section 7.2.1.1.1. The Applicable Modes or Other Specified Conditions are reformatted into the Applicability statement. The current Function 4 Mode 2 Applicabilities (i.e., Mode 2 above the P-6 interlock and Mode 2 below the P-6 interlock) are combined to simply state "MODE 2." Actions Note is not applicable since this Specification is for only one Function and is therefore deleted.

Current TS 3.3.1 Action F contains Required Actions for bypassing and/or tripping one and two inoperable channels. This Action is presented in new TS 3.3.3 Actions A and B. This reformatting provides one Action for one inoperable channel (Action A) and a separate Action for two inoperable channels (Action B). Current Required Action F.1.2 contains two actions (i.e., bypass one channel and trip the other channel) not currently separated with the appropriate logical connector. The reformatting splits these Required Actions into New Required Action B.1 and B.2, which is based on the TSTF-GG-05-01, subsection 4.1.6.i.1, for separating discrete items within actions. The current TS 3.3.1 Required Actions F.2 and F.3 are reformatted as new TS 3.3.3 Required Actions A.2 and A.3, and repeated as new TS 3.3.3 Required Actions B.2 and B.3 due to splitting up of current TS 3.3.1 Action A as described earlier.

Current TS 3.3.1 Action G for three inoperable channels with thermal power between P-6 and P-10 is reformatted as new TS 3.3.3 Action D, as modified by DOC M02. Current TS 3.3.1 Action H is reformatted as new TS 3.3.3 Action C.

Current SR 3.3.1.9 is associated with three RTS Functions: Power Range Neutron Flux, Intermediate Range Neutron Flux, and Source Range Neutron Flux High Setpoint. However, only the Intermediate Range Neutron Flux Function is retained in reformatted TS 3.3.3. Since the current SR 3.3.1.9 (renumbered for new TS 3.3.3 as SR 3.3.3.2) contains a Frequency applicable solely to the Source Range Neutron Flux, that Frequency is not required in new SR 3.3.3.2. Additionally, the editorial changes to new SR 3.3.3.2 to replace “Four” with “4” and delete “Every” corrects conventions for Frequency presentation consistent with TSTF-GG-05-01, subsections 3.3.3.a.3 and 4.1.7.a.

<u>New TS 3.3.4, Reactor Trip System (RTS) Engineered Safety Feature Actuation System (ESFAS) Instrumentation</u>

The following current TS Table 3.3.1-1 Functions are reformatted into the new TS 3.3.4:

- 15.b, Safeguards Actuation Input from Engineered Safety Feature Actuation System – Automatic
- 20.b, ADS Stages 1, 2, and 3 Actuation input from engineered safety feature actuation system – Automatic
- 21.b, Core Makeup Tank Actuation input from engineered safety feature actuation system – Automatic

These Functions reference current TS 3.3.1, Action L for Modes 1 and 2, and Action P for Modes 3, 4, and 5, which have Required Actions L.1 and P.1 to "Restore three of four channels/divisions to OPERABLE status" in 6 hours and in 48 hours respectively. These are reformatted as TS 3.3.4, Required Actions A.1 and C.1, and retain only "channel" since this is the appropriate terminology for these Functions.

The current TS 3.3.1 Required Actions L.2 and P.2 are reformatted as new TS 3.3.4 Actions B and D. The reformatted Completion Times are expressed as "6 hours" and "1 hour" respectively, since the initial times are provided in new TS 3.3.4 Actions A and C; which combined maintains the current Completion Time allowances of 12 hours and 49 hours respectively.

Note that changes to the current Required Action P.2 to open RTBs are addressed in DOC L07.

<u>New TS 3.3.5, Reactor Trip System (RTS) Manual Actuation</u>

The following current TS Table 3.3.1-1 Functions are reformatted into the new TS 3.3.5:

- 1, Manual Reactor Trip
- 15.a, Safeguards Actuation Input from Engineered Safety Feature Actuation System – Manual
- 20.a, ADS Stages 1, 2, and 3 Actuation input from engineered safety feature actuation system – Manual
- 21.a, I Core Makeup Tank Actuation input from engineered safety feature actuation system – Manual

These Functions reference current TS 3.3.1, Action B and/or Action C, which have Required Actions B.1 and C.1 to "Restore manual initiation device to OPERABLE status" in 48 hours. Since these Required Actions are common, they are presented once in new TS 3.3.5 Required Action A.1.

The current Mode 1 or 2 TS 3.3.1 Required Actions are B.2.1 ("Be in MODE 3" in "54 hours;" i.e., 6 hours after expiration of the 48 hour restoration time) and B.2.2 ("Open reactor trip breakers (RTBs)" in 55 hours; i.e., 1 hour after the action to be in Mode 3). The current Mode 3, 4, or 5 TS 3.3.1 Required Action for is C.2 ("Open RTBs" in 49 hours; i.e., 1 hour after expiration of the 48 hour restoration time Mode 3). These are reformatted as new TS 3.3.5 Actions B (for Mode 1 or 2) and C (for Mode 3, 4, or 5). The reformatted Completion Time for new TS 3.3.5 Required Action B.1 ("Be in MODE 3") is expressed as "6 hours" and the reformatted Completion Times for new TS 3.3.5 Required Actions C.1 and C.2 (which replaces the "Open RTBs") is expressed as "1 hour." Since the initial times are provided in new TS 3.3.5 Action A, when combined with the new default Actions B and C, this maintains the intent of the current Completion Time allowances.

Note that changes to the current TS 3.3.1 Required Actions B.2.2 and C.2 to open RTBs are addressed in DOC L07.

New TS 3.3.6, Reactor Trip System (RTS) Automatic Trip Logic

The reformatting of current Table 3.3.1-1, Function 19, Automatic Trip Logic, into new TS 3.3.6 simplifies the Specification without utilizing a Table. Requirements for this Function currently in Table 3.3.1-1 (and not addressed with other Discussion of Changes) are reformatted into new TS 3.3.6. Details of the Function name and number of Required Channels are reformatted to the LCO Statement. The Applicable Modes or Other Specified Conditions are reformatted into the Applicability statement. Actions Note is not applicable since this Specification is for only one Function and is therefore deleted.

The Automatic Trip Logic Function references current TS 3.3.1, Action L for Modes 1 and 2, and Action P for Modes 3, 4, and 5, which have Required Actions L.1 and P.1 to “Restore three of four channels/divisions to OPERABLE status” in 6 hours and in 48 hours respectively. These are reformatted as TS 3.3.6, Required Actions A.1 and C.1 and retain only “divisions” since this is the appropriate terminology for this Function.

The current TS 3.3.1 Required Actions L.2 and P.2 are reformatted as new TS 3.3.4 Actions B and D. The reformatted Completion Times are expressed as “6 hours” and “1 hour” respectively, since the initial times are provided in new TS 3.3.6 Actions A and C; which combined maintains the current Completion Time allowances of 12 hours and 49 hours respectively.

Note that changes to the current Required Action P.2 to open RTBs are addressed in DOC L07.

New TS 3.3.7, Reactor Trip System (RTS) Trip Actuation Devices

The following current TS Table 3.3.1-1 Functions are reformatted into the new TS 3.3.7 LCO statement:

- Function 17, Reactor Trip Breakers
- Function 18, Reactor Trip Breaker (RTB) Undervoltage and Shunt Trip Mechanisms

Current Function 18, Required Channels is revised for consistency with Current Function 17 by adding "4 divisions." This is consistent with current Conditions N and O that are based on "division" Operability, not individual component Operability.

These Functions reference current TS 3.3.1, Action N, which has Required Action N.1 to “Open RTBs in inoperable division” in 8 hours. This is reformatted as TS 3.3.7, Required Action A.1. These Functions also reference current TS 3.3.1, Action O, which has Required Action O.1 to "Restore three of four divisions to OPERABLE status" in 1 hour. This is reformatted as TS 3.3.7, Required Action B.1 and editorially reworded for consistency as “Restore one division to OPERABLE status.”

The current TS 3.3.1 default actions of Required Actions N.2.1 and O.2.1 are reformatted as new TS 3.3.7 Action C. The reformatted Completion Time is expressed as “6 hours” since the initial times are provided in new Actions A and B; which combined maintains the current Completion Time allowances of 14 hours

and 7 hours respectively.

Note that changes to the current Required Action N.2.2 and O.2.2 to open RTBs are addressed in DOC L07.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A025 Detailed Description

3.3.1-10
3.3.2-12

Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," current SR 3.3.1.10 Note, and current TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," current SR 3.3.2.4 Note, are revised to change the phrase “the prescribed values” to “within limits.”

Technical Evaluation

The TS (including NUREG-1431) have numerous examples of requirements being referenced to being “within limit.” This phrasing applies even when the limit is not included explicitly within the TS and/or Bases. Utilizing “prescribed values” in only two locations is inconsistent with numerous similar requirements. The revision to “within limits” provides a consistent presentation for this type of requirement. Since there are no stated “prescribed values” the current wording is potentially misleading.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide for consistency. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A026 Detailed Description

3.3.1-10

Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," current SR 3.3.1.9 Frequency Note stating “Only required when not performed within previous 92 days” is moved to the Surveillance column as a Note stating "Only required to be performed when not performed within previous 92 days” (current Note is deleted per DOC L10).”

Technical Evaluation

As described TSTF-GG-05-01, subsection 4.1.7.e, Notes are not to be used in the Frequency column unless the Note is located directly above the last Frequency when there is more than one Frequency. As such, this Note is reformatted to the Surveillance column as a Note. As described in TSTF-GG-05-01, subsection 4.1.7.f, when a Surveillance is noted as "only required" or "not required" it must be accompanied by (in this circumstance) "to be performed."

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with

TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A027 Detailed Description

3.1.9-2
3.4.11-2
3.4.16-1
3.5.2-2
3.5.4-3
3.7.10-2

TS 3.1.9, "Chemical and Volume Control System (CVS) Demineralized Water Isolation Valves and Makeup Line Isolation Valves," SR 3.1.9.1 is revised from "... are OPERABLE by stroking the valve" to "...stroke."

TS 3.4.11, "Automatic Depressurization System (ADS) – Operating," SR 3.4.11.2 is revised from "... is OPERABLE by stroking them" to "... strokes."

TS 3.4.16, "Reactor Vessel Head Vent (RVHV)," SR 3.4.16.1 is revised from "... is OPERABLE by stroking it" to "... strokes."

TS 3.5.2, "Core Makeup Tanks (CMTs) – Operating," SR 3.5.2.6 is revised from " is OPERABLE by stroking it" to "... strokes."

TS 3.5.4, "Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Operating," current SR 3.5.4.5 is revised from "... valves are OPERABLE by stroking open the valves" to "... valves stroke open."

TS 3.7.10, "Steam Generator (SG) Isolation Valves," SR 3.7.10.1 is revised from "... is OPERABLE by stroking the valve" to "... strokes."

Technical Evaluation

Satisfactory performance of SRs is directly tied to meeting the LCO in accordance with SR 3.0.1. TSTF-GG-05-01, subsection 4.1.7.a, states that the Surveillance statement should be as brief as possible but should also fully identify those requirements appropriate to ensure compliance with the LCO. Including the phrase "are OPERABLE by" is inconsistent with standard convention within other SRs, and inconsistent with Writer's Guide guidance. As an overarching principle established by SR 3.0.1, restating within an SR "are OPERABLE by" is unnecessary.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A028 Detailed Description

3.3.2-1
through
3.3.2-26
3.3.3-1
3.3.3-2
3.3.3-3
3.3.4-1
3.3.4-2
3.3.5-1

Current TS 3.3.2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation, is reformatted into multiple Specifications as follows:

- TS 3.3.8, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation";
- TS 3.3.9, "Engineered Safety Feature Actuation System (ESFAS) Manual Initiation";
- TS 3.3.10, "Engineered Safety Feature Actuation System (ESFAS) Reactor Coolant System (RCS) Hot Leg Level Instrumentation";

3.3.5-2
3.3.5-3
5.6-5

- TS 3.3.11, “Engineered Safety Feature Actuation System (ESFAS) Startup Feedwater Flow Instrumentation”;
- TS 3.3.12, “Engineered Safety Feature Actuation System (ESFAS) Reactor Trip Initiation”;
- TS 3.3.13, “Engineered Safety Feature Actuation System (ESFAS) Control Room Air Supply Radiation Instrumentation”;
- TS 3.3.14, “Engineered Safety Feature Actuation System (ESFAS) Spent Fuel Pool Level Instrumentation”;
- TS 3.3.15, “Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Operating”; and
- TS 3.3.16, “Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Shutdown.”

Note that the markup of the current TS accompanying this License amendment request provides ten (10) separate markups of current TS 3.3.2 – one for each of the nine reformatted new TS and the first one representing a "roadmap" of where various items from current TS 3.3.2 are being reformatted into new TS. This "roadmap" provides no actual revisions, but right-hand margin labels indicate where specific new TS address the current requirements

– often a current requirement is common to more than one new TS.

TS 3.3.2 Actions Note 2 is deleted.

The reformatting of current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," discussed in DOC A024) and current TS 3.3.2, discussed in this DOC, result in renumbering subsequent TS as follows:

- Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," is renumbered as TS 3.3.17,
- Current TS 3.3.4, "Remote Shutdown Workstation (RSW)," is renumbered as TS 3.3.18, and
- Current TS 3.3.5, "Diverse Actuation System (DAS) Manual Controls," is renumbered as TS 3.3.19.

Reformatting also results in various other renumbering changes, which are not listed here for brevity. This also includes various acronyms defined on first use and subsequent revision to use only the defined acronym.

Technical Evaluation

The reformatting, except where addressed in other Discussion of Changes, addresses inconsistencies in formatting and approach between current TS 3.3.1 and current TS 3.3.2. Simplification and clarification are proposed for each. In breaking down each current Specification into specific subsets of the Protection and Safety Monitoring System (PMS) function, improved human factored operator usability results.

These improvements also reflect the general approach currently in use in the Improved Standard Technical Specifications for Babcock and Wilcox Plants, NUREG-1430. That is, to separate the functions for instrumentation, Manual

Actuation, and Automatic Actuation Logic into separate Specifications. Furthermore, where the Actions for other individual Functions involve generally more complex presentation than other Functions, such that simple common Actions are not reasonable, these Functions are also provided with separate Specifications.

When Instrumentation Function Tables are utilized to reference Actions, the general format of the Specification is to provide the initial Actions that would be common to each Function (typically for bypassing and/or tripping one or two inoperable channels), then the "default" Action (i.e., Action applicable to failure to meet the initial Action(s)) would direct entry into the Table for follow-on Actions applicable to the specific inoperable Function. These follow-up Actions generally reflect the actions to exit the Applicability for that Function. This format is also consistent with that presented in current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation." As such, there is no new or unusual format reflected; operator usability and general training on use and application are not impacted.

This reformatting eliminates referencing multiple Conditions to be entered for each Function in the Table. This supports deleting the TS 3.3.2 Actions Note 2 that provides rules of usage for this presentation.

Furthermore, this format allows splitting the default Actions from the initial preferred actions. This general approach is the standard format for other Specifications and for Instrumentation Specifications for other vendors' Improved Standard Technical Specifications. The current presentation of "OR" –ing the default Required Actions following the initial compensatory actions often results in options with differing Completion Times. This presentation is cumbersome since the longer Completion Time will always be the actual limitation.

The following discussion focuses on the reformatting only. Refer to other discussions for various changes to the specifics of the reformatted components.

<u>New TS 3.3.8, Engineered Safety Feature Actuation System (ESFAS)</u>

<u>Instrumentation</u>

New TS 3.3.8 retains most of the automatic ESFAS actuation Functions, i.e., those that have a common 6-hour allowance for bypassing and/or tripping one and two inoperable channels. The remaining automatic Functions not retained in TS 3.3.8 are addressed following the discussion of new TS 3.3.8. The reformatting of Functions listed in new Table 3.3.8-1 is also discussed in DOC A032 and DOC A033.

Current TS 3.3.2 Table 3.3.2-1 Function 7.d, Reactor Coolant Average Temperature (T_{avg}) – Low 2, presents the Required Channels as "2 per loop." The logic for this Function (refer to TS Bases, FSAR Table 7.3-1, and FSAR Figure 7.2-1 Sheet 10 of 21 for supporting details) is 2-out-of-4 without regard to which loop is indicating low T_{avg}. This standard logic arrangement is consistently presented with the Required Channels as "4" -- except in this instance. For consistency, the Required Channels is editorially revised to indicate "4" which will provide appropriate clarification.

Current TS 3.3.2 Actions B and I contain common Required Actions for bypassing and/or tripping one and two inoperable channels. As such, they are presented once

in new Actions A and B. This reformatting provides one Action for one inoperable channel (Action A) and a separate Action for two inoperable channels (Action B). Current Required Actions B.2 and I.2 each contain two actions (i.e., bypass one channel and trip the other channel) not currently separated with the appropriate logical connector. The reformatting splits these Required Actions into New Required Action B.1 and B.2, which also addresses the TSTF-GG-05-01, subsection 4.1.6.i.1 for separating discrete items within actions.

New TS 3.3.8 Action C directs the entry into Table 3.3.8-1 for identifying the default Action associated with the inoperable Function(s). Current TS 3.3.2 Actions A and B include excessive wording “or division” in the Condition and Required Action. This phrase is deleted in new TS 3.3.8 Actions A, B, and C since “channel” adequately conveys the feature. This is consistent with current Table 3.3.2-1 column heading “Required Channels” use of “channel” for the applicable Functions.

Other current TS 3.3.2 Actions are reformatted into other TS as appropriate to the current Table 3.3.2-1 Functions that are reformatted into new Specifications. Current Action J is deleted as discussed in DOC L10 and current TS 3.3.2 Actions R, S, and Z are deleted as discussed in DOC L12. Also discussed in DOC L12 is the revision of current TS 3.3.2 Action Q to new TS 3.3.8 Action I, and the revision of current TS 3.3.2 Action T to new TS 3.3.8 Action O.1.

Current TS 3.3.2 Actions L, M, N, O, V, and CC are reformatted as new TS 3.3.8 Actions D, E, G, H, J, and P respectively. Current Required Action V.1 (“Restore the inoperable channel(s) -- OR”) is superfluous in accordance with TSTF-GG-05-01, subsection 4.1.6.g, since “restoration” is always implicitly available to exit the Condition, and is deleted. It is included only when it is the sole Required Action. Current TS 3.3.2 Actions X and Y are each split into two new Actions based on Mode differences; new TS 3.3.8 Actions K and L, and new TS 3.3.8 Actions M and N respectively. New TS 3.3.8 Required Actions M.2, M.3, and N.2 delete the extraneous phrases “If in MODE 4,” “If in MODE 4 or 5,” and “If in MODE 6,” respectively. These are the Modes in which these Actions would be entered; therefore there is no “if” consideration. Current Required Action CC.2 “Be in MODE 5” contains non-standard extraneous option “or 6"; which is deleted from new Required Action P.2. The TS are consistent in implicit understanding for the allowance of lower Modes. For example, many shutdown Actions contain requirements for being both in Mode 3 and in Mode 5; however, there is no conflict in exiting Mode 3 and achieving Mode 4 in route to Mode 5.

Since the Functions retained in new TS 3.3.8 each require the same set of SRs, the SRs column listing in new Table 3.3.8-1 is deleted as is the SRs Note referencing the Table to identify applicable SRs. As such, each SR retained in new TS 3.3.8 is inherently applicable to each Function. Current SRs 3.3.2.1, 3.3.2.4, 3.3.2.5, and 3.3.2.6 are renumbered as new SRs 3.3.8.1, 3.3.8.3, 3.3.8.2, and 3.3.8.4, respectively. Other SRs not retained in new TS 3.3.8 are addressed in other new TS or other discussed changes. Note that new SR 3.3.8.4 is editorially revised from “Verify ESFAS RESPONSE TIMES are within limit” to “Verify ESF RESPONSE TIME is within limit” to match the defined term ENGINEERED SAFETY FEATURE (ESF) RESPONSE TIME.

New TS 3.3.9, Engineered Safety Feature Actuation System (ESFAS) Manual Initiation

New TS 3.3.9 retains the manual ESFAS actuation Functions.

Current TS 3.3.2 Actions E and G are retained as new TS 3.3.9 Actions A and B to provide restoration times applicable to specific Functions as provided in new Notes included with the new Conditions A and B. New TS 3.3.9 Action C directs the entry into Table 3.3.9-1 for identifying the default Action associated with the inoperable Function(s). Current TS 3.3.2 Action N, O, U, and CC are reformatted as new TS 3.3.9 Actions D, E, G, and L respectively. Current TS 3.3.2 Required Actions A.1, E.1, and G.1 include excessive wording (i.e., "division" and/or "switch and switch set"). These phrases are deleted in new TS 3.3.9 Required Actions C.1, A.1, and B.1, respectively, since "channel" adequately conveys the feature. This is consistent with current Table 3.3.2-1 column heading "Required Channels" use of "channel" for the applicable Functions. Current TS 3.3.2 Actions X and Y are each split into two new Actions based on Mode differences; new TS 3.3.9 Actions H and I, and new TS 3.3.9 Actions J and K, respectively. New TS 3.3.9 Required Actions J.2, J.3, and J.4 delete the extraneous phrases "If in MODE 4," "If in MODE 4 or 5," and "If in MODE 6," respectively. These are the Modes in which these Actions would be entered; therefore there is no "if" consideration. Also discussed in DOC L12 is the revision of current TS 3.3.2 Action Q to new TS 3.3.9 Action F. Current Required Action CC.2 "Be in MODE 5" contains non-standard extraneous option "or 6;" which is deleted from new Required Action L.2. The TS are consistent in implicit understanding for the allowance of lower Modes. For example, many shutdown Actions contain requirements for being both in Mode 3 and in Mode 5; however, there is no conflict in exiting Mode 3 and achieving Mode 4 in route to Mode 5.

Since the Functions retained in new TS 3.3.9 each require the same current SR 3.3.2.3 (renumbered as new SR 3.3.9.1), the SRs column listing in new Table 3.3.9-1 is deleted as is the SRs Note referencing the Table to identify applicable SRs. As such, new SR 3.3.9.1 is inherently applicable to each Function. Other SRs not retained in new TS 3.3.9 are addressed in other new TS or other discussed changes.

New TS 3.3.10, Engineered Safety Feature Actuation System (ESFAS) Reactor Coolant System (RCS) Hot Leg Level Instrumentation

The following current Table 3.3.2-1 Functions are reformatting into the new Table 3.3.10-1:

- Function 10.c, Coincident RCS Loop 1 and 2 Hot Leg Level -- Low 2; and
- Function 28.a, Hot Leg Level – Low 1

Current Function 10.c is reformatted as new Table 3.3.10-1 Function 1, with editorial removal of "RCS" for consistency with current Function 28.a. "Coincident" describing the trip logic detail is also editorially removed since the logic is reformatted as part of new TS 3.3.15 and TS 3.3.16 (as described in DOC A035). Editorial removal of "Loop 1 and Loop 2" is also consistent with current Function 28.a. This reformatting provides clarification and consistency with other instrument Functions.

Current TS 3.3.2 Actions C and BB are retained as new TS 3.3.10 Action A, which

reformats the current TS 3.3.2 Required Action BB.2 as new TS 3.3.10 Required Action A.2 and its associated Note. New TS 3.3.10 Action B directs the entry into Table 3.3.10-1 for identifying the default Action associated with the inoperable Function(s). Current TS 3.3.2 Actions Y and AA are each split into two new Actions based on Mode differences; new TS 3.3.10 Actions C and D, and new TS 3.3.10 Actions E and F, respectively. New TS 3.3.10 Required Actions C.2, C.3, D.2, E.2.1, E.2.2, and F.1 delete the extraneous phrases "If in MODE 4," "If in MODE 4 or 5," and "If in MODE 6." These are the Modes in which these Actions would be entered; therefore there is no "if" consideration.

Since the Functions retained in new TS 3.3.10 each require the same set of SRs, the SRs column listing in new Table 3.3.10-1 is deleted as is the SRs Note referencing the Table to identify applicable SRs. As such, each SR retained in new TS 3.3.10 is inherently applicable to each Function. Current SRs 3.3.2.1, 3.3.2.4, 3.3.2.5, and 3.3.2.6 are renumbered as new SRs 3.3.10.1, 3.3.10.3, 3.3.10.2, and 3.3.10.4, respectively. Other SRs not retained in new TS 3.3.10 are addressed in other new TS or other discussed changes. Note that new SR 3.3.10.4 is editorially revised from "Verify ESFAS RESPONSE TIMES are within limit" to "Verify ESF RESPONSE TIME is within limit" to match the defined term ESF RESPONSE TIME.

<u>New TS 3.3.11, Engineered Safety Feature Actuation System (ESFAS) Startup Feedwater Flow Instrumentation</u>

The reformatting of current Table 3.3.2-1, Function 13.b, Startup Feedwater Flow – Low, into new TS 3.3.11 simplifies the Specification without utilizing a Table. Requirements for this Function currently in Table 3.3.2-1 (and not addressed with other Discussion of Changes) are reformatted into new TS 3.3.11. Details of the Function name and number of Required Channels are reformatted to the LCO statement. The Applicable Modes or Other Specified Conditions are reformatted into the Applicability statement. Actions Note 1 is revised from "for each Function" to state "for each startup feedwater line" since this Specification is for only a specific Function and the revised wording more clearly presents the allowance.

Current TS 3.3.2 Actions H and N are retained as new TS 3.3.11 Actions A and B.

Each SR retained in new TS 3.3.11 is inherently applicable to the Function. The SRs column listing is not utilized and the SRs Note referencing the Table to identify applicable SRs is deleted. As such, current SRs 3.3.2.1, 3.3.2.4, 3.3.2.5, and 3.3.2.6 are renumbered as new SRs 3.3.11.1, 3.3.11.3, 3.3.11.2, and 3.3.11.4, respectively. Other SRs not retained in new TS 3.3.11 are addressed in other new TS or other discussed changes. Note that new SR 3.3.11.4 is editorially revised from "Verify ESFAS RESPONSE TIMES are within limit" to "Verify ESF RESPONSE TIME is within limit" to match the defined term ESF RESPONSE TIME.

<u>New TS 3.3.12, Engineered Safety Feature Actuation System (ESFAS) Reactor Trip Initiation</u>

The reformatting of current Table 3.3.2-1, Function 18.b, Reactor Trip, P-4, and supported Function 8.d, Startup Feedwater Isolation logic "coincident with Reactor Trip, P-4," into new TS 3.3.12 simplifies the Specification without utilizing a Table. Details of the Function name and number of Required Channels are reformatted to the LCO statement. The Applicable Modes or Other Specified Conditions are

reformatted into the Applicability statement, and reflect the more restrictive Applicability for current Table 3.3.2-1 Function 8.d, SG Narrow Range Water Level High (reformatted as Table 3.3.8-1 Function 22) of Modes 1, 2, 3, and 4, as modified by DOC L12 (which deleted current Footnote (i)). Since this actuation requires concurrent P-4, the requirements for P-4 Applicability in new TS 3.3.12 are made consistent with the Applicability this function and reflect Modes 1, 2, 3, and 4. Current TS 3.3.2 Actions Note 1 is not applicable since this Specification is for only one Function and is therefore deleted.

Current TS 3.3.2 Actions D and M for current Function 18.b are retained as new TS 3.3.12 Actions A and B. New TS 3.3.12 Action B is modified as a result of the necessary support for the current Function 8.d (see change in the Applicability resulting from consistency with current Function 8.d as discussed above). Consistent with capturing this support relationship, new TS 3.3.12 Action B includes Required Action B.1 to "Declare affected isolation valve(s) inoperable" "Immediately" consistent with current Function 8.d reformatted as Table 3.3.8-1 Function 22.

Since the Function retained in new TS 3.3.12 requires only current SR 3.3.2.3 (renumbered as new SR 3.3.12.1), the SRs column listing in new Table 3.3.12-1 is deleted as is the SRs Note referencing the Table to identify applicable SRs. As such, new SR 3.3.12.1 is inherently applicable to each Function. The Note for current SR 3.3.2.3 is not incorporated since this function is not a manual initiation function. Other SRs not retained in new TS 3.3.12 are addressed in other new TS or other discussed changes.

<u>New TS 3.3.13, Engineered Safety Feature Actuation System (ESFAS) Control Room Air Supply Radiation Instrumentation</u>

The reformatting of current Table 3.3.2-1, Function 20.a, Control Room Air Supply Radiation – High 2, into new TS 3.3.13 simplifies the Specification without utilizing a Table. Requirements for this Function currently in Table 3.3.2-1 (and not addressed with other Discussion of Changes) are reformatted into new TS 3.3.13. Details of the Function name and number of Required Channels are reformatted to the LCO statement. The Applicable Modes or Other Specified Conditions are reformatted into the Applicability statement. Actions Note 1 is not applicable since this Specification is for only one Function and is therefore deleted.

Current TS 3.3.2 Actions F, G, K, and O are retained as new TS 3.3.13 Actions A, B, D, and C, respectively. New Conditions A and B are modified to reflect the appropriate operating condition (i.e., "in MODE 1, 2, 3, or 4" for Condition A and "during movement of irradiated fuel assemblies" for Condition B); consistent with current Applicability associated with these Conditions for this Function. The subsequent default (i.e., "Required Action and associated Completion Time not met") Conditions C and D are also modified (i.e., adding "of Condition A" and "of Condition B" respectively prior to "not met") to associate each with its corresponding predecessor. Current Required Action F.1 ("Restore channel to OPERABLE status") is superfluous in accordance with TSTF-GG-05-01, subsection 4.1.6.g, since "restoration" is always implicitly available to exit the Condition. It is included only when it is the sole Required Action. As such, reformatted new TS 3.3.13 Action A deletes current TS 3.3.2 Required Action F.1. Current TS 3.3.2 Action G

includes excessive wording “switch, switch set” and “or division” in the Condition and Required Action. These phrases are deleted in new TS 3.3.13 Condition B and Required Action B.1 since “channel” adequately conveys the feature. This is consistent with current Table 3.3.2-1 column heading “Required Channels” and consistent with current TS 3.3.2 Condition F (and new TS 3.3.13 Condition A) use of “channel” for the same Function.

Each SR retained in new TS 3.3.13 is inherently applicable to the Function. The SRs column listing is not utilized and the SRs Note referencing the Table to identify applicable SRs is deleted. As such, current SRs 3.3.2.1, 3.3.2.4, 3.3.2.5, and 3.3.2.6 are renumbered as new SRs 3.3.13.1, 3.3.13.3, 3.3.13.2, and 3.3.13.4, respectively. Other SRs not retained in new TS 3.3.13 are addressed in other new TS or other discussed changes. Note that new SR 3.3.13.4 is editorially revised from “Verify ESFAS RESPONSE TIMES are within limit” to “Verify ESF RESPONSE TIME is within limit” to match the defined term ESF RESPONSE TIME.

<u>New TS 3.3.14, Engineered Safety Feature Actuation System (ESFAS) Spent Fuel Pool Level Instrumentation</u>

The reformatting of current Table 3.3.2-1, Function 24.a, Spent Fuel Pool Level – Low, into new TS 3.3.14 simplifies the Specification without utilizing a Table. Requirements for this Function currently in Table 3.3.2-1 are reformatted into new TS 3.3.14. Details of the Function name and number of Required Channels are reformatted to the LCO statement. The Applicable Modes or Other Specified Conditions are reformatted into the Applicability statement. Actions Note 1 is not applicable since this Specification is for only one Function and is therefore deleted.

Current TS 3.3.2 Actions H and P are retained as new TS 3.3.14 Actions A and B.

Each SR retained in new TS 3.3.14 is inherently applicable to the Function. The SRs column listing is not utilized and the SRs Note referencing the Table to identify applicable SRs is deleted. As such, current SRs 3.3.2.1, 3.3.2.4, 3.3.2.5, and 3.3.2.6 are renumbered as new SRs 3.3.14.1, 3.3.14.3, 3.3.14.2, and 3.3.14.4, respectively. Other SRs not retained in new TS 3.3.14 are addressed in other new TS or other discussed changes. Note that new SR 3.3.14.4 is editorially revised from “Verify ESFAS RESPONSE TIMES are within limit” to “Verify ESF RESPONSE TIME is within limit” to match the defined term ESF RESPONSE TIME.

<u>New TS 3.3.15, Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Operating</u>

The reformatting of current Table 3.3.2-1, Functions 25.a, Coincident Logic, and 26.a, ESF Actuation Subsystem, for operating Modes (i.e., Modes 1, 2, 3, and 4) into new TS 3.3.15 simplifies the Specification without utilizing a Table. Requirements for these Functions currently in Table 3.3.2-1 (and not addressed with other Discussion of Changes) are reformatted into new TS 3.3.15. Details of the Function names and number of Required Channels are reformatted to the LCO statement (as modified by DOC D15). The Applicable Modes or Other Specified Conditions are reformatted into the Applicability statement.

Current TS 3.3.2 Actions D and O are retained as new TS 3.3.15 Actions A and B. Condition A includes the phrase “one or more Functions with” to align with the Actions Note allowing separate condition entry for each Function. Because all four

divisions are required by the LCO, "required" is deleted from the Condition and Required Action. As stated in TSTF-GG-05-01, subsection 4.1.3.b, "required" is only used in instances where less than the full complement is required.

Since the Functions retained in new TS 3.3.15 each require the same current SR 3.3.2.2 (renumbered as new SR 3.3.15.1), the SRs column listing in current Table 3.3.2-1 is deleted as is the SRs Note referencing the Table to identify applicable SRs. As such, new SR 3.3.15.1 is inherently applicable to each Function. Other SRs not retained in new TS 3.3.15 are addressed in other new TS or other discussed changes.

New TS 3.3.16, Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Shutdown

The reformatting of current Table 3.3.2-1, Functions 25.a, Coincident Logic, and 26.a, ESF Actuation Subsystem, for shutdown Modes (i.e., Modes 5 and 6) into new TS 3.3.16 simplifies the Specification without utilizing a Table. Requirements for these Functions currently in Table 3.3.2-1 (and not addressed with other Discussion of Changes) are reformatted into new TS 3.3.16. Details of the Function names and number of Required Channels are reformatted to the LCO statement (as modified by DOC D15). The Applicable Modes or Other Specified Conditions are reformatted into the Applicability statement. Since current TS 3.3.2 Function 20.a includes Applicability of "During movement of irradiated fuel assemblies," (as reformatted in new TS 3.3.13), there is an implicit requirement for ESF Coincident Logic and ESF Actuation Operability. This Applicability is explicitly incorporated in new TS 3.3.16 consistent with the reformatting of the individual requirements. The new LCO Note also captures the requirements associated with current TS 3.3.2 Function 20.a, which would not necessitate all four divisions being operable if the reactor was defueled but there was movement of irradiated fuel.

Current TS 3.3.2 Action G is retained as new TS 3.3.16 Actions A. Current TS 3.3.2 Action W is split into two new Actions based on Mode differences; new TS 3.3.16 Actions B and C. New Condition A is editorially worded to be specific to the reformatted LCO, which reflects only "required divisions." Current TS 3.3.2 Action G includes excessive wording "switch, switch set, channel, or" in the Condition and Required Action. These phrases are deleted in new TS 3.3.16 Condition A and Required Action A.1 since "division" conveys the feature consistent with the LCO. New Condition A also includes the phrase "one or more Functions with" to align with the Actions Note allowing separate condition entry for each Function. "Required" is included in new Condition A to reflect the potential for fewer than four divisions being required during movement of irradiated fuel and not in Modes 1, 2, 3, 4, 5, and 6. New TS 3.3.16 Required Action C.2 deletes the extraneous phrase "If in MODE 5." This is the Mode in which the Action would be entered; therefore there is no "if" consideration. New TS 3.3.16 adds new ActionD to require exiting the added Applicability of "During movement of irradiated fuel assemblies." These Required Actions match those in new TS 3.3.13 for the inoperability of the ESFAS Control Room Air Supply Radiation Instrumentation, which this Applicability is associated with.

Since the Functions retained in new TS 3.3.16 each require the same current SR 3.3.2.2 (renumbered as new SR 3.3.16.1), the SRs column listing in current

Table 3.3.2-1 is deleted as is the SRs Note referencing the Table to identify applicable SRs. As such, new SR 3.3.16.1 is inherently applicable to each Function. Other SRs not retained in new TS 3.3.16 are addressed in other new TS or other discussed changes.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A029 Detailed Description

3.3.2-7 Current TS 3.3.2, “Engineered Safety Feature Actuation System (ESFAS) Instrumentation,” Required Action U.2 is revised in new TS 3.3.9, “Engineered Safety Feature Actuation System (ESFAS) Manual Initiation,” Required Action G.2 by deleting "and establish a pressurizer level ≥ 20%."

Technical Evaluation

Currently, TS 3.3.2 Action U applies to inoperability of the following Functions:

- Current Table 3.3.2-1 Function 2.a, Core Makeup Tank (CMT) Actuation - Manual Initiation, which has an Applicability of Mode 4 with the RCS being cooled by the RNS and Mode 5 with the RCS pressure boundary intact; and
- Current Table 3.3.2-1 Function 13.a, Passive Residual Heat Removal Heat Exchanger Actuation - Manual Initiation, which has an Applicability of in Mode 5 with the RCS pressure boundary intact.

Current TS 3.3.2 Required Action U.1 requires placing the unit in Mode 5, thus exiting the Mode 4 applicability referenced above. Current Required Action U.2 requires initiating action to open the RCS pressure boundary and establish a pressurizer level ≥ 20% within 12 hours. TS LCO 3.0.1 establishes that Actions are applicable during the Modes or other Specified Conditions specified for the TS. Therefore, the action to establish a pressurizer level ≥ 20% ceases to be applicable once the RCS pressure boundary is open as required by the first part of current Required Action U.2. As a result, deleting the portion of the Required Action to "establish a pressurizer level ≥ 20%," results in no operational difference from the current TS Action. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A030 Detailed Description

3.3.2-8 Current TS 3.3.2, “Engineered Safety Feature Actuation System (ESFAS) Instrumentation,” Required Action W.2 is revised in renumbered TS 3.3.16, “Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Shutdown,” Required Action B.3, to replace "If in MODE 5," with "Initiate action to."

Technical Evaluation

Current TS 3.3.2, including current TS Table 3.3.2-1, is being revised by breaking

the Specification into specific subsets of the Protection and Safety Monitoring System (PMS) function. The reformatting of current TS 3.3.2 and current TS Table 3.3.2-1 are discussed in DOC A028.

Currently, Condition W specifies the default actions required in the event either current Function 25.a, Coincidence Logic, or current Function 26.a, ESF Actuation Subsystem, is inoperable during operation in Mode 5 and 6. Currently, Required Action W.2 requires that if the unit is in Mode 5, the flow path from the demineralized water storage tank to the RCS must be immediately isolated by use of at least one closed and de-activated automatic valve or closed manual valve. However, the actions to isolate the associated flow path require actions that cannot be completed from the control room. That is, they require closure of manual valves, or deactivation of automatic valves. Therefore the physical actions cannot be performed "immediately."

TSTF-GG-05-01, subsection 4.1.6.j states that if the time necessary to complete an action may vary widely based on a number of unknowns, it may be inappropriate to require the completion of the action within a specific time. In this case, the acceptable presentation is for the Required Action to state "Initiate action to …" and state the Completion Time as "Immediately." TS 1.3 states that when "immediately" is used as a Completion Time, the Required Action should be pursued without delay and in a controlled manner. Therefore, there is no expectation that the actions of current TS 3.3.2, Required Action W.2 would be completed "immediately" only that the actions to isolate the flow path be pursued without delay and in a controlled manner.

This change is acceptable because the current requirements would only require that the actions to isolate the flow path be pursued without delay and in a controlled manner. In addition, the change is consistent with guidance provided in TSTF-GG-05-01. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A031 Detailed Description

The following Required Actions are revised:

3.3.2-8
3.3.2-9
3.3.2-11
3.4.12-1
3.5.7-2
3.5.8-2
3.6.8-2

Current TS 3.3.2, “Engineered Safety Feature Actuation System (ESFAS) Instrumentation,” Required Action W.1 (renumbered as TS 3.3.16, "Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Shutdown," Required Action B.2) is revised from “... initiate action to be MODE 5 with the RCS pressure boundary open and ≥ 20% pressurizer level,” to “Initiate action to open RCS pressure boundary and establish ≥ 20% pressurizer level."

Current TS 3.3.2, Required Action W.3 (renumbered as TS 3.3.16, Required Action C.1) is revised from “… initiate action to be in MODE 6 with the water level ≥ 23 feet above the top of the reactor vessel flange,” to “Initiate action to establish water level ≥ 23 feet above the top of the reactor vessel flange."

Current TS 3.3.2, Required Action X.1 (renumbered as TS 3.3.8, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Required Action K.2) is revised from “… initiate action to be MODE 5 with RCS open and ≥ 20%

pressurizer level," to "Initiate action to open RCS pressure boundary and establish ≥ 20% pressurizer level."

Current TS 3.3.2, Required Action X.2 (renumbered as TS 3.3.8, Required Action L.2) is revised from "… initiate action to be in MODE 6 with the upper internals removed," to "Initiate action to remove the upper internals."

Current TS 3.3.2, Required Action X.1 (renumbered as TS 3.3.9, "Engineered Safety Feature Actuation System (ESFAS) Manual Initiation," Required Action H.2) is revised from "… initiate action to be MODE 5 with RCS open and ≥ 20% pressurizer level," to "Initiate action to open RCS pressure boundary and establish ≥ 20% pressurizer level."

Current TS 3.3.2, Required Action X.2 (renumbered as TS 3.3.9, Required Action I.2) is revised from "… initiate action to be in MODE 6 with the upper internals removed," to "Initiate action to remove the upper internals."

Current TS 3.3.2, Required Action Y.4 (renumbered as TS 3.3.8, Required Action N.2) is revised from "… initiate action to be in MODE 6 with the water level ≥ 23 feet above the top of the reactor vessel flange," to "Initiate action to establish water level ≥ 23 feet above the top of the reactor vessel flange."

Current TS 3.3.2, Required Action Y.4 (renumbered as TS 3.3.9, Required Action K.2) is revised from "… initiate action to be in MODE 6 with the water level ≥ 23 feet above the top of the reactor vessel flange," to "Initiate action to establish water level ≥ 23 feet above the top of the reactor vessel flange."

Current TS 3.3.2, Required Action Y.4 (renumbered as TS 3.3.10, " Engineered Safety Feature Actuation System (ESFAS) Reactor Coolant System (RCS) Hot Leg Level Instrumentation," Required Action D.2) is revised from "… initiate action to be in MODE 6 with the water level ≥ 23 feet above the top of the reactor vessel flange," to "Initiate action to establish water level ≥ 23 feet above the top of the reactor vessel flange."

Current TS 3.3.2, Required Action AA.2.3 (renumbered as TS 3.3.10, Required Action F.1), is revised from "… initiate action to be in MODE 6 with the water level ≥ 23 feet above the top of the reactor vessel flange," to "Initiate action to establish water level ≥ 23 feet above the top of the reactor vessel flange."

Current TS 3.4.12, "Automatic Depressurization System (ADS) – Shutdown, RCS Intact," Required Action D.1 is revised from "Initiate action to be in MODE 5, with RCS open" to "Initiate action to open the RCS pressure boundary."

Current TS 3.5.7, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 5," Required Action F.1 is revised from "Initiate action to be in MODE 5 with the Reactor Coolant System (RCS) pressure boundary intact and ≥ 20% pressurizer level" to "Initiate action to establish ≥ 20% pressurizer level with the Reactor Coolant System (RCS) pressure boundary intact."

Current TS 3.5.8, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 6," Required Action F.1 is revised from " Initiate action to be in MODE 6 with the water level ≥ 23 feet above the top of the reactor vessel flange," to "Initiate action to establish water level ≥ 23 feet above the top of the reactor

vessel flange."

Current TS 3.6.8 (renumbered as TS 3.6.7 as discussed in DOC M13), "Containment Penetrations," Required Action B.1.1 is revised from "If in MODE 5, initiate action to be in MODE 5 with the Reactor Coolant System (RCS) pressure boundary intact and ≥ 20% pressurizer level" to "If in MODE 5, initiate action to establish ≥ 20% pressurizer level with the Reactor Coolant System (RCS) pressure boundary intact."

Current TS 3.6.8 (renumbered as TS 3.6.7 as discussed in DOC M13), "Containment Penetrations," Required Action B.1.2 is revised from "If in MODE 6, initiate action to be in MODE 6 with the water level ≥ 23 feet above the top of the reactor vessel flange," to "If in MODE 6, initiate action to establish water level ≥ 23 feet above the top of the reactor vessel flange."

Technical Evaluation

TSTF-GG-05-01, subsection 3.3.1.b, provides guidance to enhance TS clarity by using simple sentences and avoiding the use of superfluous words or phrases. For the Required Action revisions proposed above, there is a superfluous reference to the mode of applicability. When a Condition is only applicable in a single mode of applicability, it is unnecessary to refer to that mode in the associated Required Action. The Required Actions listed above are associated with Conditions for which there is a single mode of applicability. Therefore the reference to that mode in the Required Action is unnecessary and has been deleted. There are also editorial changes to the Required Actions to increase clarity and provide consistency in phrasing for similar actions. Note that the TS 3.4.12, Required Action D.1 revision associated with the phrase "and ≥ 20% pressurizer level" is addressed in DOC A055. Note that revisions to the TS 3.3.2 Required Actions W.1, W.3, X.1, X.2, Y.4, and AA.2.3 have additional changes addressed in DOC A033 and DOC A034.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A032 Detailed Description

3.3.2-3
3.3.2-6
3.3.2-14
3.3.2-16
3.3.2-17
3.3.2-18
3.3.2-19
3.3.2-20
3.3.2-21
3.3.2-22
3.3.2-23

Current TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.2-1, Engineered Safeguards Actuation System Instrumentation, is revised to eliminate duplicate instrumentation Function listings. The new Functions are as follows:

- TS 3.3.8, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.8-1, Engineered Safeguards Actuation System Instrumentation, Function 2, Containment Pressure – High 2, which combines this signal as shown for current:
    - Function 1.b, Safeguards Actuation;
    - Function 4.b, Steam Line Isolation; and

3.3.2-25

- Function 12.b, Passive Containment Cooling Actuation.

- TS 3.3.8, Table 3.3.8-1, Function 4, Containment Radioactivity – High 2 which combines this signal as shown for current:
  - Function 16.d, Chemical Volume and Control System Makeup Isolation; and
  - Function 17.a, Normal Residual Heat Removal System Isolation.
- TS 3.3.8, Table 3.3.8-1, Function 7, Pressurizer Water Level – Low 2, which combines this signal as shown for current:
  - Function 2.b, Core Makeup Tank (CMT) Actuation; and
  - Function 11.d, Reactor Coolant Pump Trip.
- TS 3.3.8, Table 3.3.8-1, Function 10, Pressurizer Water Level, High 3, which combines this signal as shown for current:
  - Function 13.f, Passive Residual Heat Removal Heat Exchanger Actuation; and
  - Function 27.b, Pressurizer Heater Trip.
- TS 3.3.8, Table 3.3.8-1, Function 11, RCS Cold Leg Temperature (T_{cold}) – Low which combines this signal as shown for current:
  - Function 1.e, Safeguards Actuation;
  - Function 4.d, Steam Line Isolation; and
  - Function 8.b, Startup Feedwater Isolation.
- TS 3.3.8, Table 3.3.8-1, Function 14, RCS Wide Range Pressure – Low which combines this signal as shown for current:
  - Function 10.a, ADS Stage 4 Actuation; and
  - Function 10.b, ADS Stage 4 Actuation.
- TS 3.3.8, Table 3.3.8-1, Function 19, on Reactor Coolant Pump Bearing Water Temperature – High which combines current:
  - Function 11.b, Reactor Coolant Pump Trip; and
  - Function 30.a, Component Cooling Water System Containment Isolation Valve Closure.
- TS 3.3.8, Table 3.3.8-1, Function 20, on SG Narrow Range Water Level – Low which combines this signal as shown for current:
  - Function 13.b, Passive Residual Heat Removal Heat Exchanger Actuation; and
  - Function 14.b, SG Blowdown Isolation.
- TS 3.3.8, Table 3.3.8-1, Function 22, SG Narrow Range Water Level High, which combines this signal as shown for current:
  - Function 8.d, Startup Feedwater Isolation; and
  - Function 16.g, Chemical Volume and Control System Makeup Isolation.
- TS 3.3.8, Table 3.3.8-1, Function 23, SG Narrow Range Water Level – High 2, which combines this signal as shown for current:
  - Function 5.b, Turbine Trip;
  - Function 6.b, Main Feedwater Control Valve Isolation;
  - Function 7.b, Main Feedwater Pump Trip and Valve Isolation;

  - Function 8.a, Startup Feedwater Isolation, and
  - Function 16.a, Chemical Volume and Control System Makeup Isolation.

- TS 3.3.8, Table 3.3.8-1, Function 24, Steam Line Pressure – Low, which combines this signal as shown for current:
  - Function 1.d, Safeguards Actuation;
  - Function 4.c.(1), Steam Line Isolation; and
  - Function 29.b, SG Power Operated Relief Valve and Block Valve Isolation.

Technical Evaluation

Current TS 3.3.2, including current Table 3.3.2-1, is being revised by breaking the Specification into specific subsets of the Protection and Safety Monitoring System (PMS) function. The reformatting of current TS 3.3.2 and current Table 3.3.2-1 are discussed in DOC A028. Current TS 3.3.2-1 often requires Operability of the same instrumentation channels in more than one Function. For example, Containment Pressure – High 2; is used as an actuation signal for current Function 1, Safeguards Actuation, current Function 4, Steam Line Isolation and current Function 12, Passive Containment Cooling Actuation.

Engineered safety features are initiated by the Protection and Safety Monitoring System (PMS). Four sensors normally monitor each variable used for an engineered safety feature actuation. Therefore, a trip condition generated for one variable can result in actuating multiple safeguards components. For example, upon detection of Containment Pressure – High 2 condition, the PMS would generate an actuation signal for current Function 1, current Function 4, and current Function 12. The same instrumentation is used by the PMS to determine if an actuation condition exists. Therefore, it is confusing and excessively complex to separately specify requirements for an instrumentation Function in multiple table entries, requiring the operator to enter all specified Actions concurrently. As such, the monitored parameter and associated actuation Function is only listed once in new Table 3.3.8-1. The various actuated systems are not retained as part of the nomenclature for each monitored parameter. As a further administrative and human-factored improvement, the Functions are rearranged to consecutively list Functions associated with the same variable (e.g., pressurizer parameters are listed sequentially).

In those instances where the applicable Modes for the current Functions are not identical, the more restrictive Mode is adopted. This is acceptable because an instrumentation signal used by PMS to actuate multiple system-level engineered safety features must be Operable in all applicable Modes. Therefore, the instrumentation must currently be Operable in the most restrictive Mode.

Each of the current Functions being combined provide references to Conditions that must be entered in the event the Function is inoperable. The most restrictive referenced Condition is adopted in the new requirements. This is acceptable because the same instrument channel is used to actuate the Functions being combined. For example, current Table 3.3.2-1, Function 1.b, Function 4.b, and Function 12.b are actuated on Containment Pressure – High 2, and are being

renumbered as new TS 3.3.8, Table 3.3.8-1, Function 2. In the event Containment Pressure – High 2 is inoperable, the current TS 3.3.2, Functions 1.b, 4.b and 12.b require entry into Condition B. In the event the Required Action and associated Completion Time of Condition B is not met, Functions 1.b and 12.b require entry into current TS 3.3.2, Condition O, while Function 4.b requires entry into current TS 3.3.2, Condition N. The Actions of current Condition N would allow continued operation in Mode 4, with RCS cooling provided by the RNS. The Actions of current Condition O would require that the unit be placed in Mode 5. Therefore, the Actions of current TS 3.3.2, Condition O are adopted for the new TS 3.3.8, Function 2 as new TS 3.3.8, Condition H.

For current Functions 4.c.(1) and 29, the referenced Conditions (current B,M and B,N, respectively) are combined to capture the more restrictive of both; i.e., three new Required Actions G.1 to "Be in MODE 3 – 6 hours", G.2 to "Be in MODE 4 – 12 hours, and G.3 to "Establish RCS cooling provided by RNS – 24 hours."

In the case of current Functions 11.b and 30.a, the referenced Conditions (current B,L and B,T, respectively) are combined to capture the more restrictive of both; i.e., current Required Action for Condition L (as it impacts the ability to trip the Reactor Coolant Pumps) to "Be in MODE 3 – 6 hours" is retained as new Required Action O.2, while the current Actions for Condition T (as revised by DOC L12) to "Declare affected isolation valve(s) inoperable – Immediately" is retained as new Required Action O.1.

Each of the remaining combined Functions was evaluated in the same manner, with the most restrictive Action(s) being specified for the revised Functions. Because the most restrictive actions would be required to be taken in the current TS, these changes are administrative.

Each of the current Functions being combined reference the same four current SRs (i.e., SR 3.3.2.1, SR 3.3.2.4, SR 3.3.2.5, and SR 3.3.2.6). Therefore, there is no change in the SRs associated with combining the Functions as described.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A033 Detailed Description

3.3.2-15 through 3.3.2-25

TS 3.3.2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation, Table 3.3.2-1, Engineered Safeguards Actuation System Instrumentation, is revised to eliminate entries that merely reference other Functions as follows:

- Function 2.c, Safeguards Actuation;
- Function 2.d, ADS Stages 1, 2, & 3 Actuation;
- Function 3.b, Manual Initiation of Passive Containment Cooling;
- Function 3.c, Safeguards Actuation;
- Function 5.a, Manual Main Feedwater Isolation;
- Function 5.c, Reactor Trip;
- Function 6.c, Safeguards Actuation;
- Function 6.d, Coincident signal on Reactor Trip;

- Function 7.a, Manual Initiation;
- Function 7.c, Safeguards Actuation;
- Function 7.d, Coincident signal on Reactor Trip;
- Function 8.c, Manual Initiation;
- Function 8.d, Coincident signal on Reactor Trip;
- Function 8.e, Manual Initiation;
- Function 9.b, Coincident with CMT Actuation;
- Function 10.a, ADS Stages 1, 2 & 3 Actuation;
- Function 10.b, Coincident with ADS Stages 1, 2 & 3 Actuation;
- Function 11.a, ADS Stages 1, 2 & 3 Actuation;
- Function 11.c, Manual CMT Actuation;
- Function 11.e, Safeguards Actuation;
- Function 13.d, ADS Stages 1, 2 & 3 Actuation;
- Function 13.e, CMT Actuation;
- Function 14.a, Passive Residual Heat Removal Heat Exchanger Actuation;
- Function 15.b, Reactor Trip;
- Function 16.b, Coincident signal on Safeguards Actuation;
- Function 16.f, Source Range Neutron Flux Doubling;
- Function 16.g, Coincident signal on Reactor Trip;
- Function 17.b, Safeguards Actuation;
- Function 19.b, Containment Isolation;
- Function 21.b, Manual Initiation;
- Function 22.b, ADS 4th Stage Actuation;
- Function 23.b, ADS Stage 4 Actuation; and
- Function 27.a, Core Makeup Tank Actuation.

Technical Evaluation

The current structure of TS 3.3.2, Table 3.3.2-1 includes certain Functions that reference other Functions in lieu of separately specifying the number of Required Channels, Conditions, SRs and, in some cases, Applicable Modes or Other Specified Conditions (Mode). Current TS 3.3.2, including current TS Table 3.3.2-1, is being revised by breaking the Specification into specific subsets of the Protection and Safety Monitoring System (PMS) function. The reformatting of current TS 3.3.2 and current TS Table 3.3.2-1 are discussed in DOC A028. The referencing Functions are not necessary as a result of the reformatting and are deleted.

Some of the referencing Functions refer to the referenced Function for all Applicable Modes or Other Specified Conditions, Required Channels, Conditions, and SRs. As such, there are no requirements being conveyed. The listing serves solely as information related to the design, which is appropriate for, and already provided in, the TS Bases. Deleting these Functions is administrative because no technical changes result. The following current Functions reference other Functions for all requirements, and are deleted:

- Function 7.a
- Function 8.c
- Function 8.d

- Function 8.e
- Function 9.b
- Function 10.a
- Function 11.a
- Function 11.c
- Function 11.e
- Function 13.e
- Function 15.b
- Function 16.f
- Function 16.g
- Function 19.b
- Function 22.b
- Function 23.b

The remaining deleted Functions are provided with a specific Applicable Modes or Other Specified Conditions entry that differs from the referenced Function, while continuing to provide a cross-reference for Required Channels, Conditions, and SRs. These Applicable Modes or Other Specified Conditions were compared to the referenced Function Applicable Modes or Other Specified Conditions to provide assurance that the referenced Function requirements encompass the deleted Function requirements. The following table provides a comparison of the Applicable Modes or Other Specified Conditions. Where the current referenced Function contains multiple Applicable Modes or Other Specified Conditions, the most restrictive Applicable Modes or Other Specified Conditions is shown.

Current Referenced Function (Fn) Applicability	**Current Referencing Function (Fn) Applicability (Being Deleted)**
Fn 1, Modes 1, 2, 3, 4, and 5	Fn 2.c – Modes 1, 2, 3, and 4, and Mode 5 with RCS pressure boundary intact Fn 3.c – Modes 1, 2, 3, and 4, and Mode 5 not applicable for valve isolation functions whose flow path is isolated Fn 6.c – Modes 1, 2, and 3, and Mode 4 not applicable for valve isolation Functions whose flow path is isolated Fn 7.c – Modes 1, 2, and 3, and Mode 4 not applicable for valve isolation Functions whose flow path is isolated Fn 16.b – Modes 1 and 2, and Mode 3 not applicable for valve isolation Functions whose flow path is isolated Fn 17.b – Modes 1 and 2, and Mode 3 not applicable for valve isolation Functions whose flow path is isolated
Fn 2, Modes 1, 2, 3, and 4, and Mode 5 with RCS pressure boundary intact	Fn 27.a – Modes 1, 2, and 3, and Mode 4 with RCS not being cooled by RNS or RCS pressure above the P-19 interlock

Fn 6.a, Modes 1, 2, 3, and 4 not applicable for valve isolation Functions whose associated flow path is isolated	Fn 5.a – Modes 1 and 2
Fn 9, Modes 1, 2, 3, 4, 5 with pressurizer level ≥ 20% and not applicable when required ADS valves are open, and 6, with upper internals in place and not applicable when required ADS valves are open *Note that A034 makes clarifying changes to this Applicability.*	Fn 2.d – Modes 1, 2, 3, and 4, and Mode 5 with RCS pressure boundary intact Fn 10.b – Modes 1, 2, 3, and 4, and Mode 5 with pressurizer level ≥ 20% and not applicable when required ADS valves are open Fn 13.d – Modes 1, 2, 3, and 4, and Mode 5 with RCS pressure boundary intact
Fn 12.a, Modes 1, 2, 3, and 4, Modes 5 and 6 with decay heat >6.0 Mwt	Fn 3.b – Modes 1, 2, 3, and 4, and Modes 5 and 6 with decay heat >6.0 Mwt and not applicable for valve isolation Functions whose associated flow path is isolated
Fn 13, Modes 1, 2, 3, 4, and Mode 5, with RCS pressure boundary intact	Fn 14.a – Modes 1, 2, and 3, and Mode 4 with RCS not being cooled by RNS and not applicable for valve isolation Functions whose associated flow path is isolated
Current Referenced Function (Fn) Applicability	**Current Referencing Function (Fn) Applicability (Being Deleted)**
Fn 16.e, Modes 1, 2, Modes 3 and 4 not applicable for valve isolation Functions whose associated flow path is isolated, and Mode 4 with RCS not being cooled by RNS and not applicable for valve isolation Functions whose associated flow path is isolated	Fn 21.b – Modes 1 and 2
Fn 18.b, Modes 1, 2, and 3 *Note that Mode 4 is added based on Applicability of Fn 8.d, Coincident P-4, as discussed in DOC A028 for new TS 3.3.12.*	Fn 5.c – Modes 1 and 2 Fn 6.d – Modes 1 and 2 Fn 7.d – Modes 1 and 2

Therefore, the individual Applicable Modes or Other Specified Conditions currently specified in the deleted Functions is less restrictive than the Applicable Modes or Other Specified Conditions currently specified for the referenced Function. These Applicabilities may be modified by other changes; however, the more restrictive Applicability of all related Functions is retained.

Since current TS Table 3.3.2-1, Function 6.a, also reflects current Functions 5.a, 7.a, and 8.e, the title for new Function 5 in TS Table 3.3.9-1 is editorially clarified to be “Feedwater Isolation – Manual Initiation.”

The referencing statement for deleted Function 27.a refers to Function 2, but

includes a statement that in addition to the requirements for Function 2, SR 3.3.2.9 also applies. Disposition of current SR 3.3.2.9 with respect to the Pressurizer Heater Trip Function is addressed in DOC L01.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A034 Detailed Description

3.3.2-8
3.3.2-9
3.3.2-18
3.3.2-19
3.3.2-24

The following Applicable Modes or Other Specified Conditions (and associated Footnotes) in current TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.2-1, are revised as follows in new Table 3.3.8-1, new Table 3.3.9-1, and new Table 3.3.10-1:

Current Table 3.3.2-1	New Table 3.3.8-1	New Table 3.3.9-1	New Table 3.3.10-1
Fn 9.a: 5[j],6[j,k]		Fn 6: 5[e]	
Fn 9.b: 5[j,l]	Fn 15: 5[i]		
Fn 10.a: 5[j],6[j,k]	Fn 14: 5,6[h]	Fn 7: 5,6[f]	
Fn 10.b: 5[j,l]	Fn 16: 5		
Fn 10.c: 5[j],6[j]			Fn 1: 5,6[b]
Fn 23.b: 5[j],6[j]	Fn 18: 5,6[h]		

- The associated current Footnotes from Table 3.3.2-1 are:

  (j) Not applicable when the required ADS valves are open. See LCO 3.4.12 and LCO 3.4.13 for ADS valve and equivalent relief area requirements.
  (k) With upper internals in place.
  (l) With pressurizer level ≥ 20%.

- The current footnotes are revised as follows for new TS 3.3.8, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.8-1:

  (h) With upper internals in place.
  (i) With RCS pressure boundary intact and with pressurizer level ≥ 20%.

- The current footnotes are revised as follows for new TS 3.3.9, "Engineered Safety Feature Actuation System (ESFAS) Manual Initiation," Table 3.3.9-1:

  (d) With RCS pressure boundary intact and with pressurizer level ≥ 20%.
  (e) With upper internals in place.

- The current footnotes are revised as follows for new TS 3.3.10, "Engineered Safety Feature Actuation System (ESFAS) Reactor Coolant System (RCS) Hot Leg Level Instrumentation," Table 3.3.10-1:

  (b) With upper internals in place.

Current TS 3.3.2 Required Action X.1 and W.1 lead in: "If in MODE 5 with RCS open and < 20% pressurizer level..." is deleted in new TS 3.3.8 Required Action K.2, new TS 3.3.9 Required Action H.2, and new TS 3.3.16, "Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Shutdown," Required Action B.2.

Current TS 3.3.2 Required Action X.2 lead-in: "If in MODE 6 with upper internals in place..." is deleted in new TS 3.3.8 Required Action L.2 and in new TS 3.3.9, Required Action I.2.

Technical Evaluation

Current TS 3.3.2, including current TS Table 3.3.2-1, is being revised by breaking the Specification into specific subsets of the Protection and Safety Monitoring System (PMS) function. The reformatting of current TS 3.3.2 and current TS Table 3.3.2-1 are discussed in DOC A028.

Current Table 3.3.2-1 Footnote (j) is applicable to Functions associated with ADS valve actuation instrumentation and refers to LCO 3.4.12 and LCO 3.4.13 for ADS valve and equivalent relief area requirements. The intent is to assure PMS actuation capability is Operable when the ADS valves require actuation signals to open. When ADS valves are required to be open (or Actions for equivalent relief area are imposed) then the intent is to not require actuation from PMS. LCO 3.4.12 requires that nine ADS flow paths (which includes ADS Stages 1, 2, 3, and 4) must be Operable (i.e., PMS actuation capability) during operation in Mode 5 with the RCS pressure boundary intact. LCO 3.4.13 applies during operation in Mode 5 with the RCS pressure boundary open or with pressurizer level < 20%, and in Mode 6 with the upper internals in place. LCO 3.4.13 requires two ADS stage 4 flow paths to be Operable (i.e., for actuation to open); however, ADS Stage 1, 2, and 3 flow paths are required to be open (i.e., RCS is required to be open, which will exit the Applicability of TS 3.4.12) and as such, no longer require PMS actuation capability. In Mode 6 with the upper internal removed, no ADS requirements are imposed. As a result, new Table 3.3.8-1 Function 15, Core Makeup Tank (CMT) Level – Low 1, (which actuates ADS Stages 1, 2, and 3), is only required in in Mode 5 when both RCS pressure boundary is intact and pressurizer level ≥ 20% -- i.e., new Footnote (i). Since ADS Stage 4 is required Operable in both TS 3.4.12 and 3.4.13, this captures all of Mode 5, therefore the PMS Functions 14, 16, and 18 (which are related to ADS Stage 4) are required Operable in all of Mode 5.

For current Table 3.3.2-1 Function 9.a (i.e., Manual actuation of ADS Stage 1, 2, and 3) the change deletes Mode 6 applicability as presented in new Table 3.3.9-1 Function 6. Because the ADS Stage 1, 2, and 3 flow paths are required to be open per LCO 3.4.13, the PMS capability to manually open the Stage 1, 2, and 3 ADS valves is moot. If any ADS Stage 1, 2, or 3 valve is not open, the Actions of TS 3.4.13 dictate a 72 hour restoration period. This action is mirrored in current TS 3.3.2 Action G for inoperable PMS capability. Therefore, deleting current TS 3.3.2 Mode 6 Applicability, and related actions for inoperability, for Stage 1, 2, and 3 ADS valves is administrative since the actions parallel those that exist in TS 3.4.13.

The changes also clarify the Applicabilities for the Stage 4 ADS valves to ensure that the required instrumentation is Operable consistent with the requirements of LCOs 3.4.12 and 3.4.13 during operation in Mode 5 (i.e., with the RCS pressure boundary intact, with the RCS pressure boundary open or with pressurizer level < 20%) and in Mode 6 with the upper internals in place. Replacing Footnote (j), and the various combination of Footnotes with (j), with requirements more explicitly aligned with LCO 3.4.12 and LCO 3.4.13, is a human-factored improvement for clarity and usability. Specifically, current Table 3.3.2-1 Functions 10.a and 10.b include requirements for RCS Wide Range Pressure – Low. Both current Footnotes "(j)" and "(l)" apply in Function 10.b. With "(j)" encompassing the condition of pressurizer level < 20% (per TS 3.4.13 Applicability) and "(l)" encompassing pressurizer level > 20%, the effect is equivalent to citing all of Mode 5 for the associated Applicability. In conjunction with combining duplicate Functions (refer to DOC A032), the more restrictive Actions of current Action X apply to the RCS Wide Range Pressure – Low Function. With these changes, the lead-in wording for current Required Action X.1 is deleted (as shown in new TS 3.3.8 Required Action K.2 and new TS 3.3.9 Required Action H.2) since it is entered from all Mode 5 conditions. Similarly, the lead-in wording for current Required Action W.1 is deleted (as shown in new TS 3.3.16 Required Action B.2) since this Action is entered from all Mode 5 conditions.

Similarly, for Mode 6 since ADS requirements (including PMS support requirements) apply only with upper internals in place, the lead-in wording for current Required Action X.2 is deleted (as shown in new TS 3.3.8 Required Action L.2 and new TS 3.3.9 Required Action I.1) since these Conditions are entered from Mode 6 with upper internals in place.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A035 Detailed Description

3.3.2-19
3.3.2-21
3.3.2-24

The following TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.2-1, is revised to delete design-related details, i.e., "coincident," from the following Function names:

- Function 10.c, ADS Stage 4 Actuation on Coincident RCS Loop 1 and 2 Hot Leg Level – Low 2
- Function 13.b, Passive Residual Heat Removal Heat Exchanger Actuation on SG Narrow Range Water Level – Low Coincident with Startup Feedwater Flow – Low
- Function 23.b, IRWST Containment Recirculation Valve Actuation on ADS Stage 4 Actuation Coincident with IRWST Level – Low 3

Technical Evaluation

Current TS 3.3.2, including current TS Table 3.3.2-1, is being revised by breaking the Specification into specific subsets of the Protection and Safety Monitoring System (PMS) function. The reformatting of current TS 3.3.2 and current TS Table

3.3.2-1 are discussed in DOC A028 The reformatting revises the format of the associated instrumentation tables to delete Function names based on system actuations with Function names based on the associated instrumentation. Because the new Functions now refer to the instrumentation in lieu of the system actuations, discussion of coincidence is no longer required. Therefore, the design-related details of which signals are combined in “coincident” logic are deleted.

Similar design-related details are addressed by combining Functions, as discussed in DOC A032, or by deleting references, as discussed in DOC A033.

The deletion of design-related details is designated as administrative because it does not result in technical changes to the TS. The revised Functions retain requirements that provide assurance that the required instrumentation is Operable, is appropriately tested, and that corrective actions are taken in the event an instrument Function is determined to be inoperable.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A036 Detailed Description

3.3.2-20
3.3.2-21
3.3.2-22

The following TS 3.3.2, “Engineered Safety Feature Actuation System (ESFAS) Instrumentation,” Table 3.3.2-1, footnote combinations are revised as follows:

- Current Footnote (b), "With the RCS not being cooled by the Normal Residual Heat Removal System (RNS)," when combined with current Footnote (l), "With pressurizer level ≥ 20%," are revised as new TS 3.3.8, “Engineered Safety Feature Actuation System (ESFAS) Instrumentation,” Footnote (f), "With RCS not being cooled by the RNS and with pressurizer level ≥ 20%."

- Current Footnote (b) "With the RCS not being cooled by the Normal Residual Heat Removal System (RNS)," when combined with current Footnote (m), “Above the P-19 (RCS Pressure) interlock," are revised as new TS 3.3.8 Footnote (g), "Above the P-19 (RCS Pressure) interlock with the RCS not being cooled by RNS."

Technical Evaluation

Current TS 3.3.2, including current TS Table 3.3.2-1, is being revised by breaking the Specification into specific subsets of the Protection and Safety Monitoring System (PMS) function. The reformatting of current TS 3.3.2 and current TS Table 3.3.2-1 are discussed in DOC A028.

The combination of current Footnote (b) and current Footnote (l) modify the Applicable Modes or Other Specified Conditions for current Function 11.d, Reactor Coolant Pump Trip on Pressurizer Water Level – Low 2, in Mode 5. The combination of current Footnote (b) and current Footnote (m) modify the Applicable Modes or Other Specified Conditions for:

- Current Function 13.f, Passive Residual Heat Removal Heat Exchanger

Actuation on Pressurizer Water Level, High 3, in Mode 4; and

- Current Function 16.c, Chemical Volume and Control System Makeup Isolation on Pressurizer Water Level – High 2, in Mode 4.

The current presentation of two footnotes is confusing in that it may not be readily apparent to the user that the subject footnotes are "anded." The revised footnotes clearly present the requirements, consistent with the description of the affected Functions in the associated Bases.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A037 Detailed Description

3.3.3-3 Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Table 3.3.3-1, "Post-Accident Monitoring Instrumentation," is revised by deleting "/ DIVISIONS," from the title of the second table column.

Technical Evaluation

Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," is renumbered as TS 3.3.17 as discussed in DOC A028.

The title of the current Table 3.3.3-1 second column is currently "REQUIRED CHANNEL/DIVISIONS." The second column title is revised to "REQUIRED CHANNELS." The current TS 3.3.3 Actions refer to "channels" in the entry Conditions and in the Required Actions. There is no reference to "divisions." This proposed title is consistent with other tables currently referenced within the TS, such as current Table 3.3.1-1, "Reactor Trip System Instrumentation," and current Table 3.3.2-1, "Engineered Safeguards Actuation System Instrumentation." The proposed title is also consistent with NUREG-1431, Table 3.3.3-1, "Post-Accident Monitoring Instrumentation."

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to for consistency with NUREG-1431. Specifically, NUREG-1431, Table 3.3.3-1. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A038 Detailed Description

3.3.4-1
3.4.1-2
3.4.8-2
3.4.11-2
3.4.13-2
3.4.16-1
3.4.18-2
3.5.4-3
3.6.8-2

The following current TS Surveillances are revised by deletion of "that" from the surveillance

- SR 3.3.4.2
- SR 3.4.1.5
- SR 3.4.8.1
- SR 3.4.18.2
- SR 3.5.4.4
- SR 3.6.8.2
- SR 3.7.6.7
- SR 3.7.6.8
- SR 3.7.6.9

3.6.9-1
3.7.6-3
3.7.6-4
3.9.4-2
3.9.7-1

- SR 3.4.11.1
- SR 3.4.11.2
- SR 3.4.11.3
- SR 3.4.13.1
- SR 3.4.16.1
- SR 3.6.9.1
- SR 3.6.9.2
- SR 3.7.6.2
- SR 3.7.6.3
- SR 3.7.6.5
- SR 3.7.6.10
- SR 3.9.4.1
- SR 3.9.7.1

Technical Evaluation

Deletion of "that" from Surveillances is consistent with the guidance provided in TSTF-GG-05-01, subsection 3.1.1.g, that states: "Avoid the use of 'that' in the Specifications if the statement is clear without it." Deleting "that" from the current SRs does not reduce the clarity of the SRs.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A039 Detailed Description

3.3.5-3

Current TS 3.3.5, "Diverse Actuation System (DAS) Manual Controls," Table 3.3.5-1, "DAS Manual Controls," footnote c is revised from "In MODE 6 with reactor internals in place," to "With reactor internals in place."

Current TS 3.3.5, Table 3.3.5-1, Applicable Modes or Other Specified Conditions for Functions 2, 3, 4, 5, 6, 7, and 10 are revised to superscript the footnotes associated with Mode 5 and Mode 6, as applicable.

Technical Evaluation

Current TS 3.3.5, "Diverse Actuation System (DAS) Manual Controls," is renumbered as TS 3.3.19 as discussed in DOC A028.

Current TS Table 3.3.5-1, footnote c modifies the Applicable Modes or Other Specified Conditions for Function 7, "ADS stage 4 valves." Function 7 is required to be Operable in Modes 1, 2, 3, 4, 5, and in MODE 6, as modified by footnote c, with the reactor internals in place. Because Mode 6 is specified in the Applicable Modes or Other Specified Conditions column of current Table 3.3.5-1 for Function 7, including "MODE 6" in the footnote is an extraneous detail. The Applicability of the Function is clear without repeating Mode 6 in both locations.

Footnotes associated Modes and Other Specified Conditions in other TS tables, such as Table 3.3.1-1, "Reactor Trip System Instrumentation," are formatted as superscript text. This change revises the formatting for consistency with footnotes in other instrumentation tables in the TS.

These changes are designated as administrative changes and are acceptable

because they do not result in technical changes to the current TS.

A040 Detailed Description

3.4.3-2 TS 3.4.3, "RCS Pressure and Temperature (P/T) Limits," SR 3.4.3.1 is modified by a Note stating "Only required to be performed during RCS heatup and cooldown operations and inservice leak and hydrostatic testing." The Note is revised by inserting "RCS" before the word "inservice" as follows "Only required to be performed during RCS heatup and cooldown operations and RCS inservice leak and hydrostatic testing."

Technical Evaluation

The proposed change clarifies that the inservice leak and hydrostatic testing referred to in the Note is the RCS inservice leak and hydrostatic test, not an individual system test. These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made for consistency with NUREG-1431. This change is consistent with the wording of the same note in NUREG-1431, SR 3.4.3.1. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A041 Detailed Description

3.4.1-2 TS 3.4.1, “RCS Pressure, Temperature, and Flow Departure from Nucleate Boiling (DNB) Limits,” SR 3.4.1.4 and SR 3.4.1.5 are revised to eliminate parenthetical reference to “(differential pressure)” and including it as the descriptor: “differential pressure RCS total flow rate indication.”

Technical Evaluation

TSTF-GG-05-01, subsection 3.3.1.g, recommends avoiding the overuse of parenthetical type statements within sentences, as they generally make the sentence longer, more complicated, and more difficult to understand. The proposed change to the SRs clarifies the SR, is consistent with the intent of the current wording, and remains consistent with the wording of the Bases.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A042 Detailed Description

3.4.4-1 1. TS 3.4.4, "RCS Loops," LCO Note 1 stating "No RCP shall be started when the reactor trip breakers are closed," is deleted. The prohibition on RCP starts is

3.4.4-2 moved to Required Action A.1 and Required Action B.1.

2. A new Required Action A.1 stating "Suspend start of any RCP" with a Completion Time of "Immediately" is added to TS 3.4.4. Existing Required Action is renumbered.
3. A new Required Action B.1 is stating "Suspend start of any RCP" with a Completion Time of "Immediately" is added to TS 3.4.4. Existing Required Action is renumbered.

Technical Evaluation

TS 3.4.4, LCO Note 1 currently prohibits starting any Reactor Coolant Pump (RCP) while operating in the current applicable Modes. This requirement prevents startup of an RCP and the resulting circulation of cold and/or unborated water from an inactive loop into the core, precluding reactivity excursion events which are unanalyzed. As currently stated in the associated Bases, the requirements of the Notes ensure that no attempt is made to restart a pump with the reactor trip breakers closed, thus precluding events which are unanalyzed.

The proposed change deletes Note 1 and moves the prohibition on starting RCPs to proposed Required Action A.1 and proposed Required Action B.1. This provides assurance that, when the LCO is not met, no attempt to start an RCP will occur while in the Mode of Applicability. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A043 Detailed Description

TS 3.4.5, "Pressurizer," Required Action A.1, "Restore pressurizer water level
3.4.5-1 within limit," within 6 hours is deleted.

Technical Evaluation

Required Action A.1 currently requires restoration of the pressurizer water level to within limit within 6 hours. However, TSTF-GG-05-01, subsection 4.1.6.g, states that restoration of compliance with the LCO is always an available Required Action and it is the convention to not state such "restore" options explicitly unless it is the only action or is required for clarity. Action A provides additional Required Actions; therefore, an action requiring restoration is not required. This change does not result in any technical changes to the TS.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A044 Detailed Description

TS 3.4.6, "Pressurizer Safety Valves," Mode 4 Applicability is editorially revised
3.4.6-1 into two Applicabilities. The first Applicability is "MODE 4 with Normal Residual

Heat Removal System (RNS) isolated," and the second is "MODE 4 with RCS temperature ≥ 275˚F."

Technical Evaluation

The current Mode 4 Applicability contains two Applicability statements; one related to Normal Residual Heat Removal System isolation status and one related to Reactor Coolant System temperature. TSTF-GG-05-01, subsection 2.5.4, provides guidance on how the Applicability is formatted in TS Sections 3.1 through 3.9. As provided in this guidance, when more than one Applicability statement exists, each statement begins on a new line aligned with the first statement.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A045 Detailed Description

TS 3.4.8, "Minimum RCS Flow," LCO is revised to replace "at least" with "≥."

3.4.8-1

Technical Evaluation

TSTF-GG-05-01, subsection 3.3.4.d states that widely understood symbols should be used in tables, figures, and text in place of the words the symbols represent. Therefore, changing the term "at least" to "≥" is acceptable since it is consistent with TSTF-GG-05-01.

This change is made for consistency with TSTF-GG-05-01. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A046 Detailed Description

TS 3.4.8, "Minimum RCS Flow," LCO Note 1 is revised to allow all Reactor Coolant Pumps (RCPs) to be "removed from operation" instead of "de-energized" when in the specified conditions of the Note.

3.4.8-1

Technical Evaluation

The TS 3.4.8, LCO, currently requires that at least one RCP be in operation with a total flow through the core of at least 3,000 gpm. Note 1 currently allows all RCPs to be de-energized in Mode 3, 4, or 5 for ≤ 1 hour per 8 hour period provided: a) no operations are permitted that would cause introduction into the RCS, coolant with boron concentration less than required to meet the Shutdown Margin of LCO 3.1.1; and b) core outlet temperature is maintained at least 10˚F below saturation temperature. As currently written, Note 1 can be interpreted as a requirement that

RCPs must be de-energized if not in operation.

The Note 1 wording is consistent with similar Notes in NUREG-1431, Revision 1, TS 3.4.5, "RCS Loops – Mode 3," and TS 3.4.6, "RCS Loops – Mode 4." Generic change TSTF-153, "Clarify Exception Notes to be Consistent with the Requirement Being Excepted," revised these Notes by replacing "may be de-energized" with "may not be in operation." TSTF-153 states "The differences between the LCO requirement and the Notes is not only confusing, but in some cases implies that additional actions must be taken. For example, if a pump that is normally "in operation" must be "de-energized," is it necessary to open or pull the breaker on the pump? Must the hand switch be put in a locked position? Or may the pump just be stopped? This ambiguity can lead to errors or improper enforcement and must be corrected." TSTF-153 was incorporated into NUREG-1431 in Revision 2.

Subsequent to the approval of TSTF-153, a consensus was reached between the NRC and the Industry that this wording was confusing. The Notes could be read as a prohibition, i.e., the pump must be stopped, instead of the intended meaning that the pump may be stopped. Prior to finalization of Revision 2 of the ITS NUREGs in April, 2001, the NRC proposed a revision to the Note wording to address these concerns. The NRC proposed to revise the Notes to state the pump "may be not in operation." This wording was included in Revision 2 of NUREG-1431.

The NUREG-1431, TS 3.4.5 and 3.4.6 Notes were subsequently revised by TSTF-438. TSTF-438 revised the Notes to allow the RCPs to be "may be removed from operation," instead of "may not be in operation."

The intent of the LCO Notes in NUREG-1431, Revision 1, TSTF-153, and ITS Revision 2 is the same. In all cases, the Note allows a temporary exception to the requirement to have cooling loops in operation. This change eliminates confusion in the interpretation of the LCO Notes.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made for consistency with NUREG-1431, TS 3.4.5 and TS 3.4.6 LCO Notes, TSTF 153, and TSTF 438. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A047 Detailed Description

3.4.4-1 TS 3.4.4, "RCS Loops," LCO Note 4 is revised to allow all Reactor Coolant Pumps (RCPs) to be "removed from operation" instead of "de-energized" when in the specified conditions of the Note.

Technical Evaluation

The TS 3.4.4, LCO, currently requires that two Reactor Coolant System (RCS) loops shall be Operable and in operation with 4 RCPs operating with variable speed bypassed. Note 4 currently allows all RCPs to be de-energized in Mode 3, 4, or 5 for ≤ 1 hour per 8 hour period provided: a) no operations are permitted that

would cause introduction into the RCS, coolant with boron concentration less than required to meet the Shutdown Margin of LCO 3.1.1; and b) Core outlet temperature is maintained at least 10˚F below saturation temperature. As currently written, Note 4 can be interpreted as a requirement that RCPs must be de-energized if not in operation.

The current Note 4 wording is consistent with similar Notes in NUREG-1431, Revision 1, TS 3.4.5, "RCS Loops – Mode 3," and TS 3.4.6, "RCS Loops – Mode 4." Generic change TSTF-153, "Clarify Exception Notes to be Consistent with the Requirement Being Excepted," revised these Notes by replacing "may be de-energized" with "may be not in operation." TSTF-153 states "The differences between the LCO requirement and the Notes is not only confusing, but in some cases implies that additional actions must be taken. For example, if a pump that is normally "in operation" must be "de-energized," is it necessary to open or pull the breaker on the pump? Must the hand switch be put in a locked position? Or may the pump just be stopped? This ambiguity can lead to errors or improper enforcement and must be corrected." TSTF-153 was incorporated into NUREG 1431 in Revision 2.

Subsequent to the approval of TSTF-153, a consensus was reached between the NRC and the Industry that this wording was confusing. The Notes could be read as a prohibition, i.e., the pump must be stopped, instead of the intended meaning that the pump may be stopped. Prior to finalization of Revision 2 of the ITS NUREGs in April, 2001, the NRC proposed a revision to the Note wording to address these concerns. The NRC proposed to revise the Notes to state the pump "may be not in operation." This wording was included in Revision 2 of NUREG-1431. The NUREG-1431, TS 3.4.5 and 3.4.6 Notes were subsequently revised by TSTF-438. TSTF-438 revised the Notes to allow that the RCPs "may be removed from operation," instead of "may be not in operation."

The intent of the LCO Notes in NUREG-1431 Revision 1, TSTF-153, NUREG-1431 Revision 2, and TSTF-438 is the same. In all cases, the Note allows a temporary exception to the requirement to have cooling loops in operation. This change eliminates confusion in the interpretation of the LCO Notes.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made for consistency with NUREG-1431, TS 3.4.5 and TS 3.4.6 LCO Notes, TSTF 153, and TSTF 438. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the current TS.

A048 Detailed Description

3.4.9-1
3.4.9-2
3.4.9-3

TS 3.4.9, "RCS Leakage Detection Instrumentation," LCO b, Applicability Note 1, Condition C, Required Action C.2, SR 3.4.9.1, SR 3.4.9.2, and SR 3.4.9.4 are revised to specify the "containment atmosphere F18 particulate monitor."

Technical Evaluation

Currently, TS 3.4.9 is not consistent in how references to the containment atmosphere F18 particulate monitor are made. LCO b refers to the "containment atmosphere radioactivity monitor (F18 particulate)," Applicability Note 1 refers to the "F18 particulate containment atmosphere radioactivity monitor." The Actions and SRs refer to the "containment atmosphere radioactivity monitor." This change revises all references to the "containment atmosphere F18 particulate monitor" for consistency with the nomenclature provided in the Final Safety Analysis Report (FSAR).

These changes are made to provide consistency with the FSAR terminology specified in Subsection 5.2.5.3.3 and Subsection 11.5.2.3.1. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A049 Detailed Description

3.4.9-2
3.4.9-3

TS 3.4.9, "RCS Leakage Detection Instrumentation," Condition C, SR 3.4.9.1, SR 3.4.9.2 and SR 3.4.9.4, are revised by deleting "required."

Technical Evaluation

As discussed in TSTF-GG-05-01, subsection 4.1.3.b, "required" is specifically used in Conditions, Required Actions, and Surveillances to denote reference to equipment which is "required" by the LCO for the specific existing Applicability. Typically (for operating MODES), any component referred to is "required." In this case no clarification is needed and "required" is not specifically stated in the Conditions, Required Actions, and Surveillances. In cases where the LCO only requires some of all possible components be used to satisfy the LCO requirement, then the clarification of "required" is used in the Conditions, Required Actions, and Surveillances.

As described in Final Safety Analysis Report (FSAR) Subsection 11.5.2.3.1, there is one containment atmosphere radiation monitor that contains one detector for F-18 particulate concentration. Therefore, it is not appropriate to use "required" with respect to the F18 particulate monitor.

These changes are made for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A050 Detailed Description

3.4.9-2

TS 3.4.9, "RCS Leakage Detection Instrumentation," Actions, Condition D is revised from "Required Action and associated Completion Time not met," to "Required Action and associated Completion Time of Condition A, B, or C not met."

Technical Evaluation

Currently, TS 3.4.9 Condition D does not specify which Required Actions and associated Completion Times not met would require entry into Condition D. TSTF-GG-05-01, subsection 4.1.6, paragraph i.5 provides guidance on the appropriate Condition wording for Conditions that are required to be entered as a result of failing to satisfactorily complete another Required Action. As stated in the guidance, if the Condition is only entered for failure of some of the Required Actions, the entry condition shall include a specific listing of the applicable Conditions. A listing is not provided only if all Required Action failures would lead to entering the subject Condition.

With respect to TS 3.4.9, failing to satisfactorily complete the Required Actions of Condition E should not result into entry into Condition D, as the Required Actions of Condition E are more restrictive. Therefore, the proposed change clarifies the entry condition.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A051 Detailed Description

3.4.10-1 TS 3.4.10, "RCS Specific Activity," Required Action A.1 is revised from "Verify DOSE EQUIVALENT I-131 to be ≤ 60 μCi/gm" to "Verify DOSE EQUIVALENT I-131 ≤ 60 μCi/gm."

Technical Evaluation

TS 3.4.10, Required Action A.1 is revised by deleting "to be" from the action. TSTF-GG-05-01, subsection 3.1.1 provides general guidance on the use of vocabulary. The philosophy of TSTF-GG-05-01, as stated in paragraph 3.1.1.e.3, is to minimize the use of articles in table entries and tabular instructions unless a passage cannot be clearly understood without articles. The proposed Required Action A.1 is easily understood without using "to be."

This change is made for consistency with TSTF-GG-05-01. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A052 Detailed Description

3.4.6-1 TS 3.4.6, “Pressurizer Safety Valves,” Condition B, first entry condition is revised by addition of "of Condition A.”

3.4.11-1
3.5.2-2
3.6.8-2 TS 3.4.11, "Automatic Depressurization System (ADS) – Operating," Condition D, first entry condition is revised by addition of "of Condition A, B, or C."

TS 3.5.2, "Core Makeup Tanks (CMTs) – Operating," Condition F, first entry condition is revised by addition of "of Condition A, B, C, D, or E."

Current TS 3.6.8, "Containment Penetrations," Condition B, first entry condition is revised by addition of "of Condition A."

Technical Evaluation

TSTF-GG-05-01 states that if the Condition is only entered for failure of some of the Required Actions, a specific listing of the applicable Conditions is required. Because there is a second entry condition for the Conditions being revised, failure of those Required Actions are not intended to allow reentry into the Condition. Therefore, this change clarifies the entry conditions as described in the Writer's Guide.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A053 Detailed Description

3.4.11-1 TS 3.4.11, "Automatic Depressurization System (ADS) – Operating," is revised as follows:

- The LCO is revised from "The ADS, including 10 flow paths, shall be OPERABLE," to "Ten ADS flow paths shall be OPERABLE."
- Actions Condition D, second entry condition is revised by deletion of "Requirements of" from the condition statement.

Technical Evaluation

As described TSTF-GG-05-01, subsection 4.1.4.a, the LCO is intended to describe, as simply as possible, the lowest functional capability or performance levels of equipment required for the safe operation of the facility. It is acceptable to generically refer to the system, subsystem, component or parameter that is the subject of the LCO and provide the specific scope/boundaries in the Bases. In addition, TSTF-GG-05-01, subsection 3.3.1.g, recommends avoiding the overuse of parenthetical type statements within sentences, as they generally make the sentence longer, more complicated, and more difficult to understand. The proposed change to the LCO simplifies the LCO statement, is consistent with the intent of the current wording, and remains consistent with the wording of the Actions entry conditions.

The proposed change deleting "Requirements of" from the second entry condition of Condition D results in simplified wording. The proposed change is consistent with guidance provided in TSTF-GG-05-01 and is also consistent with the wording in other Conditions within the TS.

These changes (wording preferences, editorial changes, reformatting, revised

numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A054 Detailed Description

3.4.12-1 TS 3.4.12, "Automatic Depressurization System (ADS) – Shutdown, RCS Intact," is revised as follows:

1. The LCO is revised from "The ADS, including 9 flow paths, shall be OPERABLE," to "Nine ADS flow paths shall be OPERABLE."
2. Required Actions A.1, B.1 and C.1 are revised from "Restore flow path ...” to "Restore required flow path..."
3. The first entry condition of Condition D is revised by addition of "of Condition A, B, or C" to the condition statement.
4. The second entry condition of Condition D is revised by deletion of "Requirements of" from the condition statement.

Technical Evaluation

As described in TSTF-GG-05-01, subsection 4.1.4.a, the LCO is intended to describe, as simply as possible, the lowest functional capability or performance levels of equipment required for the safe operation of the facility. It is acceptable to generically refer to the system, subsystem, component, or parameter that is the subject of the LCO and provide the specific scope/boundaries in the Bases. In addition, TSTF-GG-05-01, subsection 3.3.1.g, recommends avoiding the overuse of parenthetical type statements within sentences, as they generally make the sentence longer, more complicated, and more difficult to understand. The proposed change to the LCO simplifies the LCO statement, is consistent with the intent of the current wording, and remains consistent with the wording of the Actions entry conditions.

When an LCO requires Operability of only some of the components of a particular function (in the case of LCO 3.4.12, nine of the ten ADS flow paths), TSTF-GG-05-01, subsection 4.1.3.b, states that the Conditions, Required Actions and Surveillances which refer to the item(s) required by the LCO are preceded by "required." The proposed change inserting "required" in Required Actions A.1, B.1, and C.1 is consistent with this guidance and the wording of the Condition A, Condition B, and Condition C.

TSTF-GG-05-01, subsection 4.1.6.i.5.ii, states that if the Condition is only entered for failure of some of the Required Actions, a specific listing of the applicable Conditions is required. Because the second Condition D entry condition is based on the LCO not being met for reasons other than Condition A, B, or C, this proposed change to the first entry condition of Condition D clarifies the entry conditions.

The proposed change deleting "Requirements of" from the second entry condition of Condition D results in simplified wording. The proposed change is consistent

with guidance provided in TSTF-GG-05-01 and is also consistent with the wording in other Conditions within the TS.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A055 Detailed Description

3.4.12-1 TS 3.4.12, "Automatic Depressurization System (ADS) – Shutdown, RCS Intact," Required Action D.1 is revised from "Initiate action to be in MODE 5, with RCS open and ≥ 20% pressurizer level," to "Initiate action to open the RCS pressure boundary."

Technical Evaluation

TS 3.4.12 is applicable in Mode 5 with the RCS pressure boundary intact. In the event the Required Action and associated Completion Time are not met, or if the LCO is not met for reasons other than Condition A, B, or C, Required Action D.1 currently requires that action be initiated immediately to be in Mode 5, with the RCS open and pressurizer level ≥ 20%. However, there is no need to specify the pressurizer level in Required Action D.1. In the event the pressurizer level is < 20% with the RCS open in Mode 5, TS 3.4.13, "Automatic Depressurization System (ADS) – Shutdown, RCS Open," applies. Therefore, specifying a pressurizer level in TS 3.4.13, Required Action D.1 is not required, as TS 3.4.13 provides the necessary actions required to be taken in the event sufficient ADS capability is not Operable in Mode 5 with the RCS pressure boundary open and pressurizer level < 20%. The change deleting the phrase "be in MODE 5," is addressed in DOC A031.

This change is administrative because with the current wording, as soon as the RCS is open in Mode 5, TS 3.4.12 no longer applies. If the RCS is open in Mode 5 and pressurizer level is < 20%, TS 3.4.13 applies. With the proposed change, there is no change in the relationship between TS 3.4.12 and TS 3.4.13. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A056 Detailed Description

3.4.13-1
3.4.13-2 TS 3.4.13, "Automatic Depressurization System (ADS) – Shutdown, RCS Open," is revised as follows:

1. The first LCO is revised by deleting the comma following "Stage 3."
2. The second LCO is revised from "ADS stage 4 with 2 flow paths shall be OPERABLE," to "Two ADS stage 4 flow paths shall be OPERABLE."
3. The Mode 5 Applicability is editorially revised into two Applicabilities. The first Applicability is "MODE 5 with pressurizer level < 20%." The second

Applicability is "MODE 5 with RCS pressure boundary open."

4. Condition A is revised by deleting "required."
5. Required Action B.2 is revised by replacing "two" with "required."
6. The second entry condition of Condition C is revised by deleting "Requirements of" from the condition statement and revising "Conditions" to "Condition."
7. The second entry condition of Condition D is revised by deleting "Requirements of" from the condition statement and revising "Conditions" to "Condition."
8. SR 3.4.13.1 is revised by deleting "that," from the Surveillance.
9. SR 3.4.13.2 is revised by deleting "of LCO 3.4.11, "Automatic Depressurization System (ADS) – Operating,"" from the Surveillance.

Technical Evaluation

Deleting the comma in the first LCO is an editorial change that corrects the grammar of the statement.

As described in TSTF-GG-05-01, subsection 4.1.4.a, the LCO is intended to describe, as simply as possible, the lowest functional capability or performance levels of equipment required for the safe operation of the facility. It is acceptable to generically refer to the system, subsystem, component, or parameter that is the subject of the LCO and provide the specific scope/boundaries in the Bases. In addition, TSTF-GG-05-01, subsection 3.3.1.g, recommends avoiding the overuse of parenthetical type statements within sentences, as they generally make the sentence longer, more complicated, and more difficult to understand. The proposed change to the LCO simplifies the LCO statement, is consistent with the intent of the current wording, and remains consistent with the wording of the Actions entry conditions.

The current Mode 5 Applicability contains two Applicability statements; one related to the RCS pressure boundary status and one related to pressurizer level. TSTF-GG-05-01, subsection 2.5.4, provides guidance on how the Applicability is formatted in TS Sections 3.1 through 3.9. As provided in this guidance, when more than one Applicability statement exists, each statement begins on a new line aligned with the first statement.

The proposed changes deleting "required" from Condition A and replacing "two" with "required" in Required Action B.2 are consistent with guidance in TSTF-GG-05-01, subsection 4.1.3.b, which states "In cases where the LCO only requires some of all possible components be used to satisfy the LCO requirement, then the clarification of "required" is used in the Conditions, Required Actions, and Surveillances. Typically, it is inappropriate to state "required" in the LCO, as the LCO is the statement of what is required." Because the LCO requires all Stage 1, 2, and 3 flow paths to be Operable, use of "required" in the Condition is not appropriate and is; therefore, deleted. Because the LCO requires only two Stage 4 flow paths to be Operable, use of "required" in Required Action B.2 is

appropriate.

The proposed changes deleting "Requirements of" from the second entry condition of Conditions C and D result in simplified wording. The proposed change is consistent with guidance provided in TSTF-GG-05-01 and is also consistent with the wording in other Conditions within the TS.

The proposed changes changing "Conditions" to "Condition" in the second entry condition of Condition C and Condition D are consistent with guidance provided in TSTF-GG-05-01, subsection 4.1.6.i.5.ii.

The proposed deletion of "that" from SR 3.4.13.1 is consistent with the guidance provided in TSTF-GG-05-01, subsection 3.1.1.g, that states: "Avoid the use of 'that' in the Specifications if the statement is clear without it." Deleting "that" from the current SRs does not reduce the clarity of the SRs.

The proposed change to SR 3.4.1.2 deleting "of LCO 3.4.11, "Automatic Depressurization System (ADS) – Operating,"" from the SR description results in simplified wording. TSTF-GG-05-01, subsection 4.1.7 states that SR statements should be as brief as possible but should also fully identify those requirements appropriate to ensure compliance with the LCO. SR 3.4.13.2 states that SR 3.4.11.1 and SR 3.4.11.3 are applicable for each ADS stage 4 flow path required to be Operable. Referencing SR 3.4.11.1 and SR 3.4.11.3 with no reference to the LCO is adequate to ensure the appropriate testing requirements are referenced.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A057 Detailed Description

3.4.13-1 TS 3.4.13, "Automatic Depressurization System (ADS) – Shutdown, RCS Open," Condition B is revised by deleting "closed and."

Technical Evaluation

Currently, Condition B states "One required ADS stage 4 flow path closed and inoperable." The function of the ADS flow paths is to open to ensure that in-containment refueling water storage tank (IRWST) injection and containment recirculation can occur. If the stage 4 flow path is open, it is performing its function, whether capable of additional actuation or not. If the stage 4 flow path is closed, then it must be capable of opening. Therefore, it is only necessary to state that the flow path is inoperable. The phrase "closed and" is extraneous.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A058 Detailed Description

3.4.13-2 TS 3.4.13, "Automatic Depressurization System (ADS) – Shutdown, RCS Open," SR 3.4.13.1 is revised by deleting "fully," from the Surveillance.

Technical Evaluation

LCO 3.4.13 requires the ADS stage 1, 2, and 3 flow paths to be "open." The Actions of Condition A are entered when 1 required ADS stage 1, 2, or 3 flow path is not open. SR 3.4.13.1 currently requires that each ADS stage 1, 2, or 3 valve is in the "fully open" position. TSTF-GG-05-01, subsection 4.1.7, states that SR statements should be as brief as possible but should also fully identify those requirements appropriate to ensure compliance with the LCO. Because the LCO requires that the stage 1, 2, and 3 ADS valves be open, it is only necessary for the SR to verify that these ADS valves be "open."

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A059 Detailed Description

3.4.13-2 TS 3.4.13, "Automatic Depressurization System (ADS) – Shutdown, RCS Open," is revised as follows:

1. The first entry condition of Condition C is revised by addition of "of Condition A or B" to the condition statement.
2. The first entry condition of Condition D is revised by addition of "of Condition A or B" to the condition statement.

Technical Evaluation

TSTF-GG-05-01, subsection 4.1.6.i.5.ii, states that if the Condition is only entered for failure of some of the Required Actions, a specific listing of the applicable Conditions is required. Therefore, the change to the first entry condition of Condition D is appropriate.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A060 Detailed Description

3.4.14-1
3.4.14-2 TS 3.4.14, "Low Temperature Overpressure Protection (LTOP) System," is revised by deleting "System" from the title and corresponding references such that the title is "Low Temperature Overpressure Protection (LTOP).

3.4.14-3
5.6-5

Current TS 5.6.6.a listing of TS 3.4.14 is revised by deleting "System" from the title.

Technical Evaluation

Reference to a Low Temperature Overpressure Protection (LTOP) System is misleading. There is no "system" for overpressure protection; instead, there are methods of overpressure protection, or conditions that must be met to prevent overpressurization, as provided in the TS 3.4.14 LCO.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A061 Detailed Description

3.4.14-1
3.4.14-3

TS 3.4.14, "Low Temperature Overpressure Protection (LTOP) System," is revised by moving a note stating "Accumulator isolation is only required when accumulator pressure is greater than or equal to the maximum RCS pressure for the existing RCS cold leg temperature allowed by the P/T limit curves provided in the PTLR," from the Applicability to the LCO.

TS 3.4.14, SR 3.4.14.1 is revised by adding a Note stating "Only required to be met when accumulator pressure is greater than or equal to the maximum RCS pressure for the existing RCS cold leg temperature allowed by the P/T limit curves provided in the PTLR."

TS 3.4.14, SR 3.4.14.2 and SR 3.4.14.4 are revised by adding a Note stating "Only required to be met when complying with LCO 3.4.14.a."

TS 3.4.14, SR 3.4.14.3 is revised by changing “to be performed” to “to be met.”

Technical Evaluation

The note currently located in the Applicability does not modify the Applicability, but rather modifies the LCO. The current position of the Note (i.e., in the Applicability) increases the complexity of the TS. The LCO requires that at least one of the Overpressure Protection Systems be Operable with the accumulators isolated. The Applicability addresses operating Modes, temperatures and reactor vessel head, but does not address accumulators or accumulator pressure. The proposed repositioning to the LCO is intended to make the TS more operator-friendly. TSTF-GG-05-01, subsection 4.1.4.d, requires that Notes associated with the LCO always follow the LCO. Repositioning the Note from the Applicability to the LCO does not result in a technical change to the TS requirements.

To further clarify the intended requirements, the change adds Notes to SR 3.4.14.1, SR 3.4.14.2, and SR 3.4.14.4. SR 3.0.1 states that "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 incorporate the Note in SR 3.4.14.1 allows a potential for confusion in requiring verification that the accumulators are isolated even if the maximum RCS pressure for the existing RCS cold leg temperature allowed by the P/T limit curves provided in the PTLR is higher

than the accumulator pressure. Failure to incorporate the Notes in SR 3.4.14.2 and SR 3.4.14.4 allows for potential confusion in requiring verification that both Normal Residual Heat Removal System (RNS) suction isolation valves in one RNS suction flow path are open and verification of the RNS suction relief valve lift setting, respectively, even if the LTOP method of LCO 3.4.14.a is not the required LTOP method (i.e., the unit is complying with the LTOP method specified in LCO 3.4.14.b). The revision to SR 3.4.14.3 consistently clarifies that the requirement to provide the vent path only needs to be met when complying with LCO 3.4.14.b. The proposed addition of the Notes to SR 3.4.14.1, SR 3.4.14.2, and SR 3.4.14.4, and revision to SR 3.4.14.3, do not result in a technical change to the TS requirements.

This change moves the note from the Applicability to the LCO, consistent with the rules for note location in TSTF-GG-05-01, and inserts notes into SR 3.4.14.1, SR 3.4.14.2, and SR 3.4.14.4 consistent with the requirement of SR 3.0.1 and the intent of the technical requirements. The use of “to be met” is the appropriate intent since the exception is intended to convey an exception to meeting the requirements under specified conditions consistent with the LCO.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A062 Detailed Description

3.4.14-2 TS 3.4.14, "Low Temperature Overpressure Protection (LTOP) System," Condition A, is revised by replacing the symbol "≥" with "greater than or equal."

Technical Evaluation

According to TSTF-GG-05-01, subsection 3.3.4.b, symbols are used in conjunction with numerical values, but not used in text with no numerical values. Therefore, use of the symbol in Condition A is not appropriate.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A063 Detailed Description

3.4.16-1 TS 3.4.16, "Reactor Vessel Head Vent (RVHV)," Actions are revised by deleting the second Condition C entry condition stating "Requirements of LCO not met for reasons other than Conditions A or B."

Technical Evaluation

The TS 3.4.16 LCO requires that the RVHV shall be Operable. As described in the TS 3.4.16 Bases, the RVHV consists of two parallel flow paths each containing two RVHV isolation valves in series. The RVHV valves are connected to the

reactor vessel head via a common line. The outlets of the RVHV flow paths combine into one common discharge line which connects to a single Automatic Depressurization System (ADS) discharge header that discharges to spargers located in the in-containment refueling water storage tank (IRWST). The RVHV valves are 1 inch valves with DC solenoid operators.

With one flow path inoperable, the Actions of Condition A are required to be entered. With both flow paths inoperable, the Actions of Condition B are required to be entered. The second entry condition of Condition C is currently entered if the requirements of the LCO are not met for reasons other than Conditions A or B. Because the entry conditions for Condition A and Condition B would apply for any inoperable condition related to the RVHV (one or both flowpaths not Operable), the current second entry condition of Condition C does not address inoperabilities that would not be adequately addressed by Condition A or Condition B and is extraneous.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A064 Detailed Description

3.1.9-2
3.4.17-1
3.4.17-2
3.4.18-1
3.4.18-2

Current TS 3.4.17, "Chemical and Volume Control System (CVS) Makeup Isolation Valves," provides requirements for the CVS makeup line isolation valves in Modes 1, 2, 3, and 4. TS 3.4.17 is deleted.

Current TS 3.1.9, "Chemical and Volume Control System (CVS) Demineralized Water Isolation Valves and Makeup Line Isolation Valves," is revised by the inclusion of SR 3.1.9.2, which requires verification that the closure time of each CVS makeup isolation valve is within limits on an actual or simulated actuation signal at a Frequency in accordance with the Inservice Testing Program.

Current TS 3.4.18, "Steam Generator (SG) Tube Integrity," is renumbered as TS 3.4.17.

Technical Evaluation

Current TS 3.4.17 requires two CVS makeup line isolation valves to be Operable in Modes 1, 2, 3, and 4. However, current TS 3.1.9, "Chemical and Volume Control System (CVS) Demineralized Water Isolation Valves and Makeup Line Isolation Valves," provides similar requirements for these two valves in Modes 1, 2, 3, 4, and 5. Current TS LCO 3.1.9, in part, requires two CVS makeup line isolation valves to be Operable. Both current TS 3.4.17 Action A and current TS 3.1.9 Action A provide the requirements when one CVS makeup line isolation valve is inoperable, and requires it to be restored to Operable status within 72 hours. If not restored or with two CVS makeup line valves inoperable, Current TS 3.4.17 Action B and current TS 3.1.9 Action B require the flow path to be isolated in 1 hour. Both current TS 3.4.17 Action B and current TS 3.1.9 Action B are modified by a Note allowing the flow path to be unisolated intermittently under administrative controls. Thus, the current TS 3.1.9 LCO statement, Applicability, and Actions are equivalent to or more restrictive than those in current TS 3.4.17

(i.e., TS 3.4.17 LCO, Applicability, and Actions A and B). Current TS 3.4.17 includes two SRs. Current SR 3.4.17.1 is equivalent to current SR 3.1.9.1; both require the CVS makeup line isolation valves to be stroked closed at a Frequency in accordance with the Inservice Testing Program. Current TS 3.1.9 does not include an SR equivalent to current SR 3.4.17.2, which requires verification of the closure time of each CVS makeup line isolation valve on an actual or simulated actuation signal at a Frequency in accordance with the Inservice Testing Program. Current TS 3.1.9 is revised to include this SR as new SR 3.1.9.2. The proposed SR does not include the actual closure time limit of 30 seconds. This time is being relocated to the TS Bases as discussed in DOC D04. With the deletion of current TS 3.4.17, current TS 3.4.18 is renumbered as TS 3.4.17.

This change is considered acceptable because the revised TS 3.1.9 includes all the current requirements of TS 3.4.17. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A065 Detailed Description

3.5.1-1 TS 3.5.1, "Accumulators," Required Action B.1 Completion Time includes two Completion Times. The first states "8 hours if Condition C or E of LCO 3.5.2 has not been entered" and the second states "1 hour if Condition C or E of LCO 3.5.2 has been entered." They are connected with a logical OR. The Completion Times are revised to be "8 hours" and "1 hour from discovery of LCO 3.5.1 Condition B entry concurrent with LCO 3.5.2 Condition C or E entry." The two Completion Times are revised to be connected with a logical AND.

Technical Evaluation

This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide clarification and for consistency with TSTF-GG-05-01. The use of a logical OR implies that either Completion Time can be followed. However, the correct one, depending upon whether or not LCO 3.5.2 Condition C or E also applies, must be followed. That is, there is no "choice" to be made. Therefore, the logical connector AND is the correct one and is used. Furthermore, the 8 hours is the normal Completion Time, thus there is no reason to modify the time with the phrase "if Condition C or E of LCO 3.5.2 has not been entered." Simply stating "8 hours" increases clarity and conveys the actual meaning of the Completion Time. The second Completion Time is being modified consistent with TSTF-GG-05-01, subsection 4.1.6.i.4. This section states that if the Completion Time starts at a point not associated with entry into the Condition, then the phrase "from discovery of" shall be used. In this case, the 1 hour Completion Time only starts when Condition B is entered concurrent with LCO 3.5.2 Condition C or E being entered. Therefore, these changes are acceptable since they are made to increase clarity and to be consistent with TSTF-GG-05-01. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A066 Detailed Description

3.5.2-1 TS 3.5.2, "Core Makeup Tanks (CMTs) - Operating," Required Action C.1 Completion Time includes two Completion Times. The first states "8 hours if Condition B of LCO 3.5.1 has not been entered" and the second states "1 hour if Condition B of LCO 3.5.1 has been entered." They are connected with a logical OR. The Completion Times are revised to be "8 hours" and "1 hour from discovery of LCO 3.5.2 Condition C entry concurrent with LCO 3.5.1 Condition B entry." The two Completion Times are revised to be connected with a logical AND.

Required Action E.1 Completion Time includes two Completion Times. The first states "8 hours if Condition B of LCO 3.5.1 has not been entered" and the second states "1 hour if Condition B of LCO 3.5.1 has been entered." They are connected with a logical OR. The Completion Times are revised to be "8 hours" and "1 hour from discovery of LCO 3.5.2 Condition E entry concurrent with LCO 3.5.1 Condition B entry." The two Completion Times are revised to be connected with a logical AND.

Technical Evaluation

This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide clarification and for consistency with TSTF-GG-05-01. The use of a logical OR implies that either Completion Time can be followed. However, the correct one, depending upon whether or not LCO 3.5.1 Condition B also applies, must be followed. That is, there is no "choice" to be made. Therefore, the logical connector AND is the correct one and is used. Furthermore, the 8 hours is the normal Completion Time, thus there is no reason to modify the time with the phrase "if Condition B of LCO 3.5.1 has not been entered." Simply stating "8 hours" increases clarity and conveys the actual meaning of the Completion Time. The second Completion Time is being modified consistent with TSTF-GG-05-01, subsection 4.1.6.i.4. This section states that if the Completion Time starts at a point not associated with entry into the Condition, then the phrase "from discovery of" shall be used. In this case, the 1 hour Completion Time only starts when Condition C or E, as applicable, is entered concurrent with LCO 3.5.1 Condition B being entered. Therefore, these changes are acceptable since they are made to increase clarity and to be consistent with TSTF-GG-05-01. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A067 Detailed Description

TS 3.5.2, "Core Makeup Tanks (CMTs) - Operating," is revised as follows:

3.5.2-1

- Condition B, is revised from "One CMT inoperable due to one or more parameters (water temperature, boron concentration) not within limits," to "One CMT inoperable due to water temperature or boron concentration not within limits."

- Required Action B.1 is revised from "Restore water temperature or boron concentration to within limits," to "Restore water temperature and boron concentration to within limits."
- Required Action C.1 is revised from "Restore water temperature or boron concentration to within limits for one CMT," to "Restore water temperature and boron concentration to within limits for one CMT."

Technical Evaluation

Currently, the entry condition for Action B states "One CMT inoperable due to one or more parameters (water temperature, boron concentration) not within limits." TSTF-GG-05-01, subsection 3.3.1.g recommends avoiding the overuse of parenthetical type statements within sentences, as they generally make the sentence longer, more complicated, and more difficult to understand. The proposed change to Condition B simplifies the entry statement, and is consistent with the intent of the current wording.

Required Actions B.1 and C.1 require restoration of water temperature or boron concentration to within limits. With both the current wording and the proposed wording discussed above, if (for example) water temperature for one CMT is not within limits, Condition B is entered. However, because boron concentration is within limits, rules of usage for the logical connector "OR" dictate that no action would be required. The proposed change to using the logical connector "AND" ensures that the parameter not within limits is restored, as intended by Required Actions B.1 and C.1.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A068 Detailed Description

TS 3.5.2, "Core Makeup Tanks (CMTs) - Operating," is revised as follows:

3.5.2-1
3.5.2-2

- Condition E, is revised from "One CMT inoperable for reasons other than Condition A, B, C, or D," to "One CMT inoperable for reasons other than Condition A, B, or D."
- Condition F, second entry, is revised from "LCO not met for reasons other than A, B, C, D, or E," to "Two CMTs inoperable for reasons other than Condition C."

Technical Evaluation

Condition E is required to be entered when only one CMT is inoperable for reasons other than the Conditions that already cover other single CMT inoperabilities. Condition C is for two CMTs being inoperable; thus it is not

necessary to include Condition C in the Condition E listing.

The second entry of current Condition F is to cover all the remaining reasons when two CMTs are inoperable. Conditions A, B, D, and E already cover the one CMT inoperable reasons, so they are not required to be included in Condition F. Specifically, Condition A covers a CMT outlet valve inoperability, Condition B covers water temperature or boron level inoperabilities, Condition D covers noncondensible gas inoperabilities, and Condition E covers all other reasons for a single CMT being inoperable. Therefore, these Conditions are not needed to be referenced in the second entry of Condition F. It covers only two CMT inoperable for reasons not already covered by current Condition C. Furthermore, the term "Condition" is left out of the current listing of Conditions and is being added, consistent with the Writer's Guide convention.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A069 Detailed Description

3.5.3-1 TS 3.5.3, "Core Makeup Tanks (CMTs) – Shutdown, Reactor Coolant System (RCS) Intact," Condition C is revised from "Required CMT inoperable for reasons other than A or B," to "Required CMT inoperable for reasons other than Condition A or B."

Technical Evaluation

TSTF-GG-05-01, subsection 4.1.6.i.5, provides guidance on how Conditions which are entered as a result of failure to satisfactorily complete another Required Action are to be written. Per item ii of subsection 4.1.6.i.5, if the Condition is only entered for failure of some of the Required Actions, a specific listing must be provided. Specifically, the guidance states that the applicable Conditions be listed as "Condition A or B," for example.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A070 Detailed Description

3.5.3-1 TS 3.5.3, "Core Makeup Tanks (CMTs) – Shutdown, Reactor Coolant System (RCS) Intact," Required Action D.1 is revised from "Initiate action to be in MODE 5 with RCS pressure boundary open and ≥ 20% pressurizer level," to "Initiate action to be in MODE 5 with RCS pressure boundary open."

Technical Evaluation

This change is acceptable because it results in no technical change to the TS. TS 3.5.3 is applicable, in part, in Mode 5 with the RCS pressure boundary intact. TS LCO 3.0.1 states that Actions are applicable during the Modes or other conditions specified for the Specification. Therefore, the TS 3.5.3 Required Action to initiate action to be in MODE 5 with the RCS pressure Boundary open and ≥ 20% pressurizer level ceases to be applicable once the unit enters MODE 5 with the RCS pressure boundary open (i.e., not intact). As a result, changing the Action to "Initiate action to be in MODE 5 with RCS pressure boundary open" results in no operational difference from the current TS Action.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A071 Detailed Description

3.5.3-1 TS 3.5.3, "Core Makeup Tanks (CMTs) – Shutdown, Reactor Coolant System (RCS) Intact," is revised as follows:

- Condition B, is revised from "Required CMT inoperable due to one or more parameters (water temperature, boron concentration) not within limits," to "Required CMT inoperable due to water temperature or boron concentration not within limits."
- Required Action B.1 is revised from "Restore water temperature or boron concentration to within limits," to "Restore water temperature and boron concentration to within limits."

Technical Evaluation

Currently, the entry condition for Action B states "Required CMT inoperable due to one or more parameters (water temperature, boron concentration) not within limits." TSTF-GG-05-01, subsection 3.3.1.g, recommends avoiding the overuse of parenthetical type statements within sentences, as they generally make the sentence longer, more complicated, and more difficult to understand. The proposed change to Condition B simplifies the entry statement, and is consistent with the intent of the current wording.

Required Action B.1 requires restoration of water temperature or boron concentration to within limits. With both the current wording and the proposed wording discussed above, if (for example) water temperature is not within limits, Condition B is entered. However, because boron concentration is within limits, no action would be required. The proposed change ensures that the parameter not within limits is restored, as intended by Required Action B.1.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A072 Detailed Description

3.5.3-1 TS 3.5.3, "Core Makeup Tanks (CMTs) – Shutdown, Reactor Coolant System (RCS) Intact," Condition D, is revised by deleting the second entry condition stating "LCO not met for reasons other than A, B, or C."

Technical Evaluation

Currently, the second entry condition of Condition D requires that actions be taken if the LCO is not met for reasons other than Condition A, B, or C. However, current Condition C provides actions for CMT inoperable for reasons other than Condition A or B. Therefore, the second entry condition of Condition D duplicates the entry condition of Condition C. Because Condition C addresses CMT inoperable for reasons other than Condition A or B, the second entry condition of Condition D is deleted.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A073 Detailed Description

3.5.4-1
3.5.4-3
3.5.5-1

TS 3.5.4, “Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Operating,” is revised to add the system name “PRHR HX” to the valve description in the following:

- Condition A is revised to include “PRHR HX” as part of the valve description as follows, “One air operated PRHR HX outlet isolation valve inoperable.”
- Required Action A.1 is revised to include “PRHR HX” as part of the valve description as follows, “Restore air operated PRHR HX outlet isolation valve to OPERABLE status.”
- SR 3.5.4.1 is revised to include “PRHR HX” as part of the valve description as follows, “Verify the PRHR HX outlet manual isolation valve is fully open.”
- SR 3.5.4.2 is revised to include “PRHR HX” as part of the valve description as follows, “Verify the PRHR HX inlet motor operated isolation valve is open.”
- SR 3.5.4.4 (renumbered SR 3.5.4.5) is revised to include “PRHR HX” as part of the valve description as follows, “Verify that power is removed from the PRHR HX inlet motor operated isolation valve.”
- SR 3.5.4.5 (renumbered SR 3.5.4.6) is revised to include “HX” as part of the valve description as follows, “Verify both PRHR HX air operated outlet isolation valves and both IRWST gutter isolation valves are OPERABLE by stroking open the valves.”

TS 3.5.5, “Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Shutdown, Reactor Coolant System (RCS) Intact,” is revised to add “PRHR HX” to

the valve description in the following:

- Condition A is revised to include “PRHR HX” as part of the valve description as follows, “One air operated PRHR HX outlet isolation valve inoperable.”
- Required Action A.1 is revised to include “PRHR HX” as part of the valve description as follows, “Restore air operated PRHR HX outlet valve to OPERABLE status."

Technical Evaluation

The proposed revisions provide clarity in citing the full name of the valve. In addition, the revisions provide consistency between the LCO and the Actions/SR wording.

The proposed changes are consistent with utilizing the system name in the valve descriptions in TS 3.5.6, “In-containment Refueling Water Storage Tank (IRWST) – Operating.” TS 3.5.6 refers to the “IRWST injection line actuation valve” in Condition A and to the “motor operated IRWST isolation valve” in Condition E.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A074 Detailed Description

3.5.4-2 TS 3.5.4, “Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Operating,” is revised to reword Required Actions F.1 and F.2 Notes and Completion Times.

- Required Action F.1 Note is revised to “If redundant means of providing Steam Generator (SG) feedwater are not available, suspend LCO 3.0.3 and all other LCO Required Actions requiring MODE changes until redundant means are available.”
- Required Action F.2 Note is revised to “If redundant means of cooling the RCS to MODE 5 conditions are not available, suspend LCO 3.0.3 and all other LCO Required Actions requiring MODE changes until redundant means are available.”
- Completion Time for Required Action F.1 is revised to “6 hours from discovery of redundant means of providing SG feedwater.”
- Completion Time for Required Action F.2 is revised to “36 hours from discovery of redundant means of cooling the RCS to MODE 5 conditions.”

Technical Evaluation

If the PRHR HX is not restored in accordance with Required Action E.1, Condition F is entered. Required Actions F.1 and F.2 require the unit to be placed in a mode in which the LCO does not apply, i.e., Mode 3 within 6 hours and Mode 5 within 36 hours. Required Actions F.1 and F.2 are modified by Notes requiring

confirmation of certain conditions prior to beginning cooldown of the unit, suspension of LCO 3.0.3, and all other Required Actions requiring Mode changes if those conditions are not met.

Per the TS Bases, Required Action F.1 is modified by a Note which requires that prior to initiating cooldown of the unit to MODE 3, redundant means of providing SG feedwater must be verified as Operable. If the PRHR HX and redundant means of feeding the SGs are not Operable, the unit is in a seriously degraded condition with no means for conducting a controlled cooldown. In such a condition, the unit should not be perturbed by any action, including a power change, which might result in a trip. Similarly, per the TS Bases, Required Action F.2 is modified by a Note which requires that prior to stopping SG feedwater, redundant means of cooling the RCS to cold shutdown conditions must be verified as Operable. One redundant means of cooling the RCS to cold shutdown includes the normal residual heat removal system (RNS) and its necessary support system. Without availability of redundant cooling means, the unit is in a seriously degraded condition with no means for continuing the controlled cooldown. Until the redundant cooling means are restored, heat removal using SG feedwater should be maintained. The current presentation of these Notes is not consistent with TS rules of usage regarding conditions which need to be considered prior to entering the Required Action and starting the Completion Time clock. The revised presentation clarifies the intent of the Notes and provides consistency within TS.

Required Action F.1 Note is revised to use the term “available” instead of “OPERABLE” when referring to the status of the redundant means of providing Steam Generator (SG) feedwater. Possible redundant means include main feedwater and startup feedwater pumps. Neither means is required to be OPERABLE by the TS. The term OPERABLE is a defined term per TS 1.1.

Since the redundant means of providing SG feedwater do not meet the requirements of equipment requiring TS operability, the term “available” is used in the Note and added to the Completion Time when discussing redundant means.

Required Action F.2 Note is revised to use the term “available” instead of “OPERABLE” when referring to the status of the redundant means of cooling the RCS, and revised to use the TS convention of “MODE 5” instead of “cold shutdown conditions.” One redundant means of cooling the RCS to cold shutdown includes the normal residual heat removal system (RNS) and its necessary support system (both component cooling system pumps and heat exchangers, and both service water system pumps and fans). This redundant means is not required to be OPERABLE by the TS. As stated above, the term OPERABLE is a TS defined term. Since the redundant means of cooling the RCS to cold shutdown conditions (i.e., Mode 5) do not meet the requirements of equipment requiring TS operability, the term “available” is used in the Note and added to the Completion Time when discussing redundant means.

Required Action F.1 Completion Time is revised from “6 hours” to “6 hours from discovery of redundant means of providing SG feedwater.” Required Action F.2 is revised from “36 hours” to “36 hours from discovery of redundant means of cooling the RCS to MODE 5.” The revised presentation takes into account the exception to starting the Completion Time clock upon entry into the Condition. Per the ITS

Writer's Guide Section 4.1.6.i.4,

> "Completion Times modified to take exception to the convention of beginning upon entry into the Condition (e.g., required to be measured from some other event), will be presented with the modifier "...from discovery of..." A common example will be a limit on the total time an LCO is not met. In this case: X (time) from discovery of failure to meet the LCO."

For Required Action F.1, until redundant means of providing SG feedwater are confirmed to be available, the action to initiate cooldown to Mode 3 should not begin because the unit is in a seriously degraded condition. For Required Action F.2, until redundant means of cooling the RCS to cold shutdown conditions are confirmed to be available, the action to initiate cooldown to Mode 5 should not begin because the unit is in a seriously degraded condition. The revised presentation is consistent with TS format and rules of usage.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A075 Detailed Description

3.5.5-2 TS 3.5.5, "Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Shutdown, Reactor Coolant System (RCS) Intact," Condition E is revised by deleting the second entry condition stating, "LCO not met for reasons other than A, B, C, or D."

Technical Evaluation

TS 3.5.5 requires that the Passive Residual Heat Removal Heat Exchanger (PRHR HX) shall be Operable. As described in the TS 3.5.5 Bases, the PRHR HX consists, in part, of a heat exchanger, a pair of air operated outlet isolation valves and a pair of air operated gutter isolation valves. In addition, there is a vertical collection point at the top of the common inlet piping high point which serves as a gas collector. It is provided with level detectors that indicate when noncondensible gases have collected in this area.

With one outlet valve inoperable, the Actions of Condition A are required to be entered. With one gutter valve inoperable, the Actions of Condition B are required to be entered. If noncondensible gases collect in the common inlet piping high point, the Actions of Conditions C are required to be entered. Condition D is required to be entered if there are PRHR HX inoperabilities other than those described by Conditions A, B, or C. If the PHRH HX is not restored to Operable status within 8 hours of entering Condition D, Condition E is required to be entered. Condition E currently has two entries, "Required Action and associated Completion Time not met" or "LCO not met for reasons other than A, B, C, or D." Since Condition D covers the PRHR HX inoperabilities for reasons other than Conditions A, B, or C, the current second entry condition of Condition E does not

address inoperabilities that would not be adequately addressed by the first entry condition of Condition E and is, therefore, extraneous.

This change is acceptable because it results in no technical change to the TS. The current second entry of Condition E is extraneous since the first entry of Condition E adequately addresses the default condition for all PRHR HX inoperabilities. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A076 Detailed Description

3.5.5-2 TS 3.5.5, “Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Shutdown, Reactor Coolant System (RCS) Intact,” Required Action E.1 is revised to eliminate “and > 20% pressurizer level.”

Technical Evaluation

The TS 3.5.5 Applicability for Mode 5 states “MODE 5 with the RCS pressure boundary intact and pressurizer level ≥ 20%.” Therefore, in order for the LCO to be applicable in MODE 5, both conditions must exist. The initial portion of current Required Action E.1 requires initiating action to be in Mode 5 with the RCS pressure boundary open, which would exit the Applicability of the LCO. It would therefore not be required to complete the action to raise pressurizer level. Once the RCS pressure boundary is not intact, TS 3.4.13, “Automatic Depressurization System (ADS) – Shutdown, RCS Open,” would be applicable.

The change is made to provide clarification to the Required Actions. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A077 Detailed Description

3.5.6-2 TS 3.5.6, "In-containment Refueling Water Storage Tank (IRWST) – Operating," Condition F, first entry condition, is revised from "Required Action and associated Completion Time not met," to "Required Action and associated Completion Time of Condition A, B, C, D, or E not met.

Technical Evaluation

Currently, TS 3.5.6 Condition F does not specify which Required Actions and associated Completion Times not met would require entry into Condition F. TSTF-GG-05-01, subsection 4.1.6, paragraph i.5 provides guidance on the appropriate Condition wording for Conditions that are required to be entered as a result of failing to satisfactorily complete another Required Action. As stated in the guidance, if the Condition is only entered for failure of some of the Required Actions, the entry condition shall include a specific listing of the applicable Conditions. A listing is not provided only if all Required Action failures would lead to entering the subject Condition.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A078 Detailed Description

3.5.6-2
3.5.7-1
3.5.8-1

TS 3.5.6, "In-containment Refueling Water Storage Tank (IRWST) – Operating," Condition D, third entry condition is revised from "IRWST borated water volume < 100% and > 97% of limit" to "IRWST borated water volume ≤ 73,100 cu. ft. and > 70,907 cu. ft."

TS 3.5.7, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 5," Condition D, third entry condition is revised from "IRWST borated water volume < 100% and > 97% of limit" to "IRWST borated water volume ≤ 73,100 cu. ft. and > 70,907 cu. ft."

TS 3.5.8, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 6," Condition D, third entry condition is revised from "IRWST borated water volume < 100% and > 97% of limit" to "IRWST borated water volume ≤ 73,100 cu. ft. and > 70,907 cu. ft."

Technical Evaluation

The current third entry condition for TS 3.5.6, Action D, TS 3.5.7, Action D, and TS 3.5.8, Action D, is provided in terms of percent of IRWST level. However, SR 3.5.6.2 and SR 3.5.8.2 specify the minimum IRWST volume in units of cubic feet. Final Safety Analysis Report (FSAR) Table 6.3-2, "Component Data – Passive Core Cooling System," Sheet 2 of 2, also specifies the minimum IRWST volume in terms of cubic feet, consistent with SR 3.5.6.2 and SR 3.5.8.2. This change removes a potential source of confusion by making the requirements of entry conditions and SR 3.6.5.2 and SR 3.5.8.3 consistent. The minimum volume specified by SR 3.6.5.2 and SR 3.5.8.2 is 73,100 cu. ft. As stated in the Bases associated with TS 3.5.6, Action D, TS 3.5.7, Action D, and TS 3.5.8, Action D, the allowable deviation of the water volume is limited to 3% when complying with the actions of Action D. In addition, the third entry condition of Action D currently requires entry into Condition D if the IRWST borated water volume is < 100% (i.e., < 73,100 cu. ft). Because SR 3.5.6.2 and SR 3.5.8.2 specify the minimum volume as > 73,100 cu. ft, no Condition applies if the IRWST volume is equal to 73,100 cu ft. Therefore, Action D is revised to allow 8 hours to restore the IRWST to Operable status with volume ≤ 73,100 cu. ft, provided the volume remains > 70,907 cu. ft.

These changes are made to provide consistency with the FSAR terminology specified in Table 6.3-2 and with SR 3.6.5.2 and SR 3.5.8.2. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A079 Detailed Description

3.5.6-3
3.5.8-2

TS 3.5.6, "In-containment Refueling Water Storage Tank (IRWST) – Operating," SR 3.5.6.4 second Frequency, and TS 3.5.8, “In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 6,” SR 3.5.8.3 second Frequency, are revised from "Once within 6 hours after each solution volume increase of 15,000 gal," to "Once within 6 hours after each solution volume increase of ≥ 15,000 gal."

Technical Evaluation

Currently, SR 3.5.6.4 and SR 3.5.8.3 require verification that the IRWST boron concentration is ≥ 2600 ppm and ≤ 2900 ppm, in part, once within 6 hours after each solution volume increase of 15,000 gal. This could be interpreted to apply only to increases of 15,000 gal and, for example, not to an increase of 15,001 gal. This change clarifies the requirement, thereby minimizing the potential for misinterpreting the sampling Frequency requirement.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A080 Detailed Description

3.5.7-2

TS 3.5.7, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown," Condition F, first entry condition, is revised from "Required Action and associated Completion Time not met," to "Required Action and associated Completion Time of Condition A, B, C, D, or E not met.

Technical Evaluation

Currently, TS 3.5.7 Condition F does not specify which Required Actions and associated Completion Times not met would require entry into Condition F. TSTF-GG-05-01, subsection 4.1.6, paragraph i.5 provides guidance on the appropriate Condition wording for Conditions that are required to be entered as a result of failing to satisfactorily complete another Required Action. As stated in the guidance, if the Condition is only entered for failure of some of the Required Actions, the entry condition shall include a specific listing of the applicable Conditions. A listing is not provided only if all Required Action failures would lead to entering the subject Condition.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A081 Detailed Description

TS 3.5.8, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown,

3.5.8-2 MODE 6," Condition F, first entry condition, is revised from "Required Action and associated Completion Time not met," to "Required Action and associated Completion Time of Condition A, B, C, D, or E not met."

Technical Evaluation

Currently, TS 3.5.8 Condition F does not specify which Required Actions and associated Completion Times not met would require entry into Condition F. TSTF-GG-05-01, Subsection 4.1.6, paragraph i.5 provides guidance on the appropriate Condition wording for Conditions that are required to be entered as a result of failing to satisfactorily complete another Required Action. As stated in the guidance, if the Condition is only entered for failure of some of the Required Actions, the entry condition shall include a specific listing of the applicable Conditions. A listing is not provided only if all Required Action failures would lead to entering the subject Condition.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A082 Detailed Description

TS 3.6.3, "Containment Isolation Valves," SR 3.6.3.1 is revised to change the
3.6.3-4 phrase "personnel containment entry" to "personnel entry."

Technical Evaluation

This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide consistency with NUREG-1431, SR 3.6.3.2. In addition, the current Bases do not include the term "containment." This change is designated as an administrative change and is acceptable because it does not result in a technical change to the TS.

A083 Detailed Description

TS 3.6.4, “Containment Pressure,” and TS 3.6.5, "Containment Air Temperature,"
3.6.4-1 each revise Condition B by dividing it into two separate Conditions: one for when
3.6.5-1 the unit is in Mode 1, 2, 3, or 4 (proposed Condition B) and the other for when the
3.6.10-1 unit is in Mode 5 or 6 (proposed Condition C). Current Required Actions B.1 and B.2 will remain as the Required Actions for proposed Condition B and current Required Action B.3 is renumbered as Required Action C.1 for proposed Condition C. Consistent with this change, TS 3.6.5, Required Action B.2 is changed to only require placing the unit in Mode 5, instead of Mode 5 or 6. The Completion Time for proposed Required Action C.1 is 8 hours.

Current TS 3.6.10, “Vacuum Relief Valves,” Condition C is divided into two separate Conditions: one for when the unit is in Mode 1, 2, 3, or 4 (proposed

Condition C) and the other for when the unit is in Mode 5 or 6 (proposed Condition D). Current Required Actions C.1 and C.2 will remain as the Required Actions for proposed Condition C and current Required Action C.3 is renumbered as Required Action D.1 for proposed Condition D.

Technical Evaluation

The Action being divided provides the actions required to be taken when the LCO is not restored to within the limit(s). Splitting the current Action into two separate Actions is an editorial change. The actions required to be taken when the Required Action and associated Completion Time of other Actions are not met are not changed. If the unit is initially in Mode 1, 2, 3, or 4, then the first proposed new Condition is entered, which requires a unit shutdown to Mode 3 within 6 hours and to Mode 5 within 36 hours. This is the same as the current requirements. For TS 3.6.5, while the proposed Required Action B.2 does not specify that an option is to be in Mode 6, it is always an option. It is not necessary to state that the unit can go to a lower Mode.

Once in Mode 5, the second proposed new Condition is entered. The actions required to be taken by the second proposed new Condition state the Completion Time as 8 hours. Currently, while 44 hours is allowed, the time starts upon entry into the original Condition now being split. Since the second proposed new Condition is not entered until after Mode 5 is reached, and the first proposed Condition's Required Action allows 36 hours for entering Mode 5, the proposed 8 hour Completion Time for the second new Condition's Required Action allows no more time than is currently allowed.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A084 Detailed Description

3.6.4-1
3.6.5-1

TS 3.6.4, "Containment Pressure," and TS 3.6.5, "Containment Air Temperature," include an Applicability statement that rolls over onto a second line and the second line is not indented as required by TSTF-GG-05-01, subsection 2.5.4.b.1. The second line for these Applicability statements is indented in the proposed Applicability.

Technical Evaluation

This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide clarification and for consistency with TSTF-GG-05-01. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A085 Detailed Description

3.6.6-1

The second Condition of TS 3.6.6, "Passive Containment Cooling System (PCS) – Operating," Condition D, which states "LCO not met for reasons other than A, B, or

C" is being changed by adding the word "Condition" before "A, B, or C."

Technical Evaluation

The phrase "A, B, or C" in the current TS 3.6.6 Condition D wording is referring to the Conditions A, B, and C. Therefore, for clarification and consistency with the manner to which Conditions are referred and TSTF-GG-05-01, subsection 4.1.6.i.5.ii, the word "Condition" is being added. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A086 Detailed Description

3.6.6-1
3.6.7-1

TS 3.6.6, “Passive Containment Cooling System (PCS) – Operating," and TS 3.6.7, "Passive Containment Cooling System (PCS) – Shutdown," Required Action B.1 states to "Restore flow paths to OPERABLE status." Proposed TS 3.6.6 Required Action B.1 states to "Restore one flow path to OPERABLE status."

Technical Evaluation

Current TS 3.6.6 and 3.6.7 Action A provides the requirements when one passive containment cooling water flow path is inoperable, and requires the inoperable flow path to be restored to Operable status within 7 days. Current TS 3.6.6 and TS 3.6.7 Action B provides the actions when two passive containment cooling water flow paths are inoperable, however once a single flow path is restored to Operable status, current TS 3.6.6 and 3.6.7 Action B no longer applies. Thus the requirement to restore "flow paths" is not accurate. Only a single flow path must be restored within the 72 hours. This is also clearly stated in the TS Bases for Action A. Therefore, for clarity and consistency with the actual requirement, proposed TS 3.6.6 (which covers both current TS 3.6.6 and TS 3.6.7) Required Action B.1 only requires the restoration of one flow path. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A087 Detailed Description

3.6.6-1
3.6.7-1

TS 3.6.6, “Passive Containment Cooling System (PCS) – Operating," and TS 3.6.7, "Passive Containment Cooling System (PCS) – Shutdown," Condition C states "One or more water storage tank parameters (temperature and volume) not within limits." Proposed TS 3.6.6 Condition C (which covers both current TS 3.6.6 and TS 3.6.7) states "One or more water storage tank parameters not within limits. The parenthetical phrase "temperature and volume" is not included in the proposed TS 3.6.6 Condition C.

Technical Evaluation

The parameters covered by current TS 3.6.6 and TS 3.6.7 Condition C are the temperature and volume parameters as addressed in TS SR 3.6.6.1 and SR 3.6.6.2. There are no other Surveillances that include parameters. Thus the statement "One or more water storage tank parameters" is sufficient without the added parenthetical statement listing the specific parameters. This is also consistent with TSTF-GG-05-01, subsection 3.3.1.g, which states to avoid overuse of parenthesis. Therefore, this redundant wording is being deleted. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A088 Detailed Description

3.6.8-2 Current TS 3.6.8, "Containment Penetrations," SR 3.6.8.2 requires verification that the hardware, tools, equipment, and power source necessary to "install" the equipment hatch are available. Current SR 3.6.8.2 is revised by replacing the term "install" with "close."

Technical Evaluation

This change is made such that the SR requirement is consistent with the terminology used in the LCO requirement. Current LCO 3.6.8.a requires that if the equipment hatch is open, it can be "closed" prior to steaming into the containment. The LCO does not use the term "installed." This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A089 Detailed Description

3.6.9-1 Current TS 3.6.9, "pH Adjustment," Condition A and Required Action A.1 wording is revised to include the phrase "in the pH adjustment baskets." In addition, the words "trisodium phosphate" in Condition A and Required Action A.1 are revised to "TSP."

Technical Evaluation

Current TS 3.6.9, "pH Adjustment," is renumbered as TS 3.6.8 as discussed in DOC M13.

The TS LCO statement requires the TSP to be in the "pH adjustment baskets," and current TS SRs 3.6.9.1 and 3.6.9.2 both refer to the: "pH adjustment baskets" as the location of the TSP. For consistency, and to preclude misunderstanding or confusion, Condition A and Required Action A.1 are revised to be consistent with the term used in the LCO statement and the SRs. In addition, since the acronym for "trisodium phosphate" is defined in the LCO statement, the acronym is used in both the Condition and Required Action, in lieu of spelling it out in both locations. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A090 Detailed Description

3.6.9-1 Current TS 3.6.9, "pH Adjustment," SR 3.6.9.1 requires verification that the pH adjustment baskets contain "at least" the required volume of TSP. The term "at least" in current SR 3.6.9.1 is revised to "≥."

Technical Evaluation

Current TS 3.6.9, "pH Adjustment," is renumbered as TS 3.6.8 as discussed in DOC M13.

The TS LCO statement uses the symbol "≥" when referring to the required volume of TSP. For consistency, and to preclude misunderstanding or confusion, current SR 3.6.9.1 is revised to be consistent with the LCO statement. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A091 Detailed Description

3.7.1-1 The TS 3.7.1, "Main Steam Safety Valves (MSSVs)," LCO requires the MSSVs to be Operable as specified in Table 3.7.1-1 and Table 3.7.1-2. However, neither Table states the minimum required MSSVs to be Operable when at 100% RTP. Table 3.7.1-1 requires 5 MSSVs per steam generator to be Operable at 60% RTP and Table 3.7.1-2 only provides the lift setting for the MSSVs. TS LCO 3.7.1 has been changed to clearly state "Six MSSVs per steam generator shall be OPERABLE." The proposed LCO statement does not include a reference to either of the two Tables. In addition, due to this change, Condition A has been modified to be consistent with the LCO statement. The Condition is changed to state, in part, "One or both steam generators with one or more MSSVs inoperable."

Technical Evaluation

There are six MSSVs per steam generator, and all six are required to be Operable at 100% RTP to meet the accident analysis assumptions. TS Table 3.7.1-1 implies this requirement, since the first entry is that a maximum power level of 60% is allowed when only 5 MSSVs for any steam generator are Operable. However, since the TS LCO states that Table 3.7.1-1 provides the Operability requirements, it could be misinterpreted that if one of the six MSSVs per steam generator becomes inoperable, once reactor power is reduced to 60% RTP, the LCO is being met and TS Required Action A.2 (which requires the RPS Power Range Neutron Flux – High setpoint to be reduced) would not have to be completed. To ensure a positive statement is made as to the minimum MSSVs required to be Operable at 100% RTP and to ensure Required Action A.2 is taken when one or more MSSVs per steam generator are inoperable while in Mode 1, the LCO statement has been changed to state that six is the required number of MSSVs. Thus, any time one or both steam generators has one or more MSSVs inoperable, the LCO will not be met and, as a minimum, Condition A will have to be entered

and not exited until all MSSVs for both steam generators are Operable. Furthermore, since Table 3.7.1-1 does not specify the maximum full power allowed with 6 MSSVS Operable, and TS Required Actions A.1 and A.2 adequately reference using Table 3.7.1-1 if one or more of the MSSVs are inoperable; there is no reason to include this Table in the LCO statement. Also, since TS SR 3.7.1.1 includes the reference to the lift settings provided in TS Table 3.7.1-2, it is not necessary to include a reference to this Table in the LCO statement. Therefore, the proposed LCO statement is equivalent to the current LCO statement. The proposed LCO statement is also consistent with the LCO statement in NUREG-1431.

In addition, Condition A has been modified to state, in part, "One or both steam generators with one or more MSSVs inoperable." The Condition clearly states it is applicable for one or both steam generators (the design includes only two steam generators) and is for when one or more MSSVs on a steam generator are inoperable. This proposed Condition is equivalent to the current Condition.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A092 Detailed Description

3.7.1-2 TS 3.7.1, "Main Steam Safety Valves (MSSVs)," Condition B, second Condition states "One or more steam generators with $\geq$ 5 MSSVs inoperable." The phrase "or more" is revised to "or both."

TS SR 3.7.1.1 requires, in part, verification that each "required" MSSV lift setpoint per Table 3.7.1-2 in accordance with the Inservice testing Program. The SR is revised to delete "required."

Technical Evaluation

The design includes only two steam generators. Therefore, for clarity, the words "or more" are changed to "or both" in this Condition.

The design includes six MSSVs, and all of them are required to meet the LCO. TSTF-GG-05-01, subsections 4.1.3.b and 4.1.6.e state that the term "required" is used only when the LCO requires some of the possible components be used to meet the LCO requirements. Since all six installed MSSVs are required to meet the LCO, the term "required" in the SR is not necessary and has been deleted.

This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide clarification and for consistency with TSTF-GG-05-01. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A093 Detailed Description

TS 3.7.1, "Main Steam Safety Valves (MSSVs)," SR 3.7.1.1 verifies that each required MSSV lift setpoint is per Table 3.7.1-2 in accordance with the Inservice

3.7.1-2 Testing Program. The SR also states that following testing, lift settings shall be within ± 1%. The specific statement that following testing the lift settings shall be within ± 1% has been deleted from the SR.

Technical Evaluation

TS Table 3.7.1-2 provides the lift setting for the MSSVs. The header for the Lift Setting column identifies that the unit for the column is psig, and also states that the lift settings are ± 1% of the value shown for each MSSV. Therefore, a statement that following testing the lift settings shall be ± 1% is redundant to the Table requirements and is not necessary to be included in the SR. The statement in the Surveillance that the lift setting must be verified per Table 3.7.1-2 is sufficient to ensure the lift setting is within ± 1% of the value in the Table.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A094 Detailed Description

3.7.2-1
3.7.2-2
3.7.2-3
3.7.2-4

TS 3.7.2, "Main Steam Isolation Valves (MSIVs)," is revised to be "Main Steam Line Flow Path Isolation Valves." The LCO statement is revised to state "Each of the following main steam line flow path isolation valves shall be OPERABLE:

a. Main steam isolation valves (MSIVs);

b. MSIV bypass valves;

c. Main steam line drain valves;

d. Turbine stop valves or turbine control valves;

e. Turbine bypass valves; and

f. Moisture separator reheater 2nd stage steam isolation valves."

In addition, Required Action D.1 is revised from "steam flow path" to "main steam line flow path." Also, SR 3.7.2.2 is revised to add “required.”

Technical Evaluation

The TS title does not match what the LCO statement actually specifies. The current title is "Main Steam Isolation Valves (MSIVs)," but the actual LCO covers not only the main steam isolation valves, but also includes the turbine stop valves, turbine bypass valves, and moisture separator 2nd stage steam isolation valves. Therefore, the title of the LCO is changed to more clearly identify what the actual LCO statement is covering. Furthermore, for clarity, all the required valves are now listed in the LCO statement. Note that the addition of the MSIV bypass valves and main steam line drain valves to this Specification is discussed in DOC M11. The wording preference change to Required Action D.1 is consistent with this change in the LCO title. This change is made to provide clarification.

When an LCO requires Operability of only some of the components of a particular function (in this case, either turbine stop valves or turbine control valves), TSTF-

GG-05-01, subsection 4.1.3.b, states that the Surveillances which refer to the item(s) required by the LCO are preceded by "required." The proposed change inserting "required" in SR 3.7.2.2 is consistent with this guidance and the wording of the LCO.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A095 **Detailed Description**

The following changes are made to TS 3.7.2, "Main Steam Isolation Valves (MSIVs);"

3.7.2-1
3.7.2-2
3.7.2-3

- Conditions B, C (second condition), and D (second condition) include the word "its" when referencing the associated turbine control valves. The word "its" is deleted from these three Conditions and "s" is added to make "control valve" plural.
- Required Action B.1 states to "Restore valve to OPERABLE status." The word "valve" is changed to "valve(s)."
- Conditions C and D include the word "all" when referencing the turbine bypass valves. The word "all" is deleted from these two Conditions.
- Required Action D.1 states to "Isolate associated steam flow path." The word "associated" is changed to "affected" and the phrase "steam flow path" is changed to "main steam line flow path."
- Required Action D.2 states to "Verify flow path remains closed." The phrase "affected main steam line" is added after the word “verify.” Additionally, the phrase "remains closed" is changed to "is isolated."

Technical Evaluation

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A096 **Detailed Description**

3.7.3-1

The title of TS 3.7.3, "Main Feedwater Isolation and Control Valves (MFIVs and MFCVs)," is revised to be "Main Feedwater Isolation Valves (MFIVs) and Main Feedwater Control Valves (MFCVs)."

Technical Evaluation

The TS title includes the acronyms at the end of the title, and not after each of the names to which the acronyms are associated. This is inconsistent with the normal manner in which acronyms are specified. Therefore, the title is changed to provide the associated acronym immediately following the name of the valves (either

MFIVs or MFCVs). This change is made for consistency. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A097 Detailed Description

3.7.3-1
3.7.3-2

TS 3.7.3, "Main Feedwater Isolation and Control Valves (MFIVs and MFCVs)," is changed as follows:

- The Actions Note is revised from "Separate Condition entry is allowed for each valve," to "Separate Condition entry is allowed for each feedwater flow path."
- Condition A is revised from "One or two MFIVs inoperable," to "One or both feedwater flow paths with MFIV or MFCV inoperable." Required Action A.1 is revised from "Close or isolate the MFIV flow path," to "Isolate the affected flow path." Required Action A.2 is revised from "Verify MFIV is closed or isolated," to "Verify affected flow path is isolated."
- Action B is deleted.
- Action C is renumbered to Action B and Condition C is revised from "Two valves in the same flow path inoperable," to "One or both feedwater flow paths with associated MFIV and MFCV inoperable."
- Action D is renumbered to Action C and Required Action D.3.1 is deleted. In addition, Required Action D.3.2 is revised to be Required Action C.3 (no second level of numbering).

Technical Evaluation

The current TS 3.7.3 Actions are written on an individual valve basis. Proposed TS 3.7.3 Actions are written on a flow path basis. The revised Actions are generally consistent with the format for other TS for flow path isolation, e.g., TS 3.6.3, current TS 3.7.7, and current TS 3.7.10. The changes do not result in any technical change to the current requirements. When a flow path has an inoperable MFIV or MFCV, the revised Required Action A.1 provides 72 hours to isolate the affected flow path, consistent with the current Required Action A.1 for an inoperable MFIV and current Required Action B.1 for an inoperable MFCV. Each of these current Required Actions is equivalent to the revised Required Action A.1, in that each (current and revised) result in the isolation of the affected flow path. The proposed Required Action A.1 combines these two current Actions into a single Action. If both valves (MFIV and MFCV) in a flow path are inoperable, the revised Required Action B.1 provides 8 hours to isolate the affected penetration, consistent with the current Required Action C.1 requirements. Current Required Action D.3.1 is redundant to current Required Actions A.1 and B.1. When current Condition D applies, current Conditions A and B will also continue to apply, and their Required Actions continue to be required. Current Required Actions A.1 and B.1 require the affected flow path to be isolated, thus there is no need to repeat this Required Action as presented in current Required

Action D.3.1. Revised Required Action A.1 maintains this requirement to isolate the affected flow path. Once the flow path is isolated as required by current Required Actions A.1 and B.1 and revised Required Action A.1, Condition D would no longer apply and can be exited.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to for clarity and consistency with other Specifications whose presentation approach is on a flow path basis. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A098 Detailed Description

3.7.5-1 TS 3.7.5, "Spent Fuel Pool Water Level," Applicability is "At all times." The Applicability is revised to "When irradiated fuel assemblies are stored in the spent fuel pool."

Technical Evaluation

TS LCO 3.7.5 requires the spent fuel pool water level to be ≥ 23 ft above the top of irradiated fuel assemblies seated in the storage racks. However, the current Applicability is not consistent with this requirement, in that the Applicability is "At all times." This implies that when there is no fuel or only new fuel in the spent fuel pool, the LCO is applicable. However, the LCO itself says that the water level requirement is only "above the top of irradiated fuel assemblies." If there are no irradiated fuel assemblies in the spent fuel pool, then the LCO is not applicable. To preclude any misunderstanding or confusion, the Applicability is changed to be consistent with the actual LCO requirement. It is changed to "When irradiated fuel assemblies are stored in the spent fuel pool."

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A099 Detailed Description

3.6.10-1 Current TS 3.6.10, “Vacuum Relief Valves,” Condition C first portion includes the phrase “Conditions A or B.” The word “Conditions” is grammatically corrected to “Condition.”

3.7.6-2
3.7.6-3 TS 3.7.6, "Main Control Room Emergency Habitability System (VES)," Required Action D.1 and SR 3.7.6.2 uses the term "greater than" followed by a specific value. The term "greater than" is replaced with the symbol, ">" in these two locations. Condition E (two locations) and Condition F (two locations) includes the phrase "Conditions A, B, C, or D." The word "Conditions" is grammatically corrected to "Condition" in all of these locations.

Technical Evaluation

TSTF-GG-05-01, subsection 3.3.4.d, states that widely understood symbols should

be used in tables, figures and text in place of the words the symbols represent. Therefore, changing the term "greater than" to ">" is acceptable since it is consistent with TSTF-GG-05-01.

Use of a plural word "Conditions" with the term "or," as in Conditions A, B, C, or D, is grammatically incorrect. Therefore, deletion of the plural form and replacement with the singular form is acceptable.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A100 Detailed Description

The TS 3.7.7, "Startup Feedwater Isolation and Control Valves," LCO states "Both
3.7.7-1 Startup Feedwater Isolation Valves and Control Valves shall be OPERABLE."
3.7.7-2 LCO 3.7.7 is revised to be "Each Startup Feedwater Isolation Valve and Control Valve shall be OPERABLE." In addition, SR 3.7.7.1 is revised from "Verify both startup feedwater isolation and control valves are OPERABLE," to "Verify each startup feedwater isolation and control valve is OPERABLE."

Technical Evaluation

The TS 3.7.7 LCO statement and the SR use the term "both" when referring to two types of valves. There are two startup feedwater isolation valves and two startup feedwater control valves, one of each type of valve in each feedwater flow path, for a total of four valves. For clarity, the term "both" is changed to "each" in the LCO and to "each" in the SR to ensure all the valves are required by the LCO and required to be verified by the SR, and not just two of the total of four valves. This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide clarification. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A101 Detailed Description

TS 3.7.7, "Startup Feedwater Isolation and Control Valves," Required Action A.1
3.7.7-1 states "Isolate the affected flow path(s)" and Required Action A.2 states "Verify affected flow path(s) is isolated." The Required Actions are changed to delete the "(s)" in the word path.

Technical Evaluation

Actions Note 2 states that Separate Condition entry is allowed for each flow path. Thus, Action A, whose Condition states "One or more flow paths with one inoperable valve," is entered on a "per flow path" basis. This is described in TS 1.3, Example 1.3-5. As described in Example 1.3-5, the Required Actions are

taken for each inoperable flow path. Thus, Required Actions A.1 and A.2 is revised to state "flow path," not "flow path(s)." This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide clarification and for consistency with TSTF-GG-05-01, subsection 4.1.6.h. This section states that if separate Condition entry is allowed, the Required Actions should only refer to the single component associated with the specific Condition entry. In this case, Separate condition entry is allowed for each flow path, as annotated in Actions Note 2. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A102 Detailed Description

3.7.7-1 TS 3.7.7, "Startup Feedwater Isolation and Control Valves," Required Action C.3 is deleted.

Technical Evaluation

Current Required Action C.3 is redundant to current Required Actions A.1 and B.1. When current Condition C applies, current Conditions A and/or B will also continue to apply, and their Required Actions continue to be required. Current Required Actions A.1 and B.1 require the affected flow path to be isolated, thus there is no need to repeat this Required Action. Required Action A.1 maintains this requirement to isolate the affected flow path. Once the flow path is isolated as required by current Required Actions A.1 and/or B.1 Condition C would no longer apply and can be exited. Therefore, The current Required Action C.3 can be deleted with no resultant technical change.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to for clarity and consistency with other Specifications whose presentation approach is on a flow path basis. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A103 Detailed Description

3.7.8-1 Current TS 3.7.8, "Main Steam Line Leakage," states that the main steam line leakage through the pipe walls inside containment shall be "limited to 0.5 gpm." The phrase "limited to 0.5 gpm" is changed to "≤ 0.5 gpm."

Current TS 3.7.8 Condition A states main steam line leakage "exceeds operational limit." The phrase "exceeds operational limit" is changed to "> 0.5 gpm."

Technical Evaluation

The changes to current TS 3.7.8 are made to provide clarification and for consistency with TSTF-GG-05-01.

TSTF-GG-05-01, subsection 4.1.4.b requires that when the LCO contains a single

parameter limit, it will specify the precise limit within the LCO. For current TS LCO 3.7.8, the precise limit is ≤ 0.5 gpm. This specified value is more precise than using the term "limited to." This proposed term also is consistent with current TS SR 3.7.8.1, which requires verification that the main steam line leakage is ≤ 0.5 gpm.

TSTF-GG-05-01, subsection 4.1.6.f states that typically, Conditions referring to a parameter limit follow the rules for an LCO. For an LCO which requires a single limit on a single parameter (which current TS LCO 3.7.8 does), the Condition will specify the precise limit. Furthermore, the term "operational limit" is not defined in the LCO. Thus, using the precise Condition limit of > 0.5 gpm is consistent with the LCO limit.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A104 Detailed Description

3.8.5-2 TS 3.8.5, "Distribution Systems – Operating," Condition E is revised from "Required Action and associated Completion Time not met," to "Required Action and associated Completion Time of Condition A, B, C, or D not met" (i.e., adding "of Condition A, B, C, or D").

Technical Evaluation

Currently, TS 3.8.5 Condition E does not specify which Required Actions and associated Completion Times not met would require entry into Condition F. TSTF-GG-05-01, Subsection 4.1.6, paragraph i.5 provides guidance on the appropriate Condition wording for Conditions that are required to be entered as a result of failing to satisfactorily complete another Required Action. As stated in the guidance, if the Condition is only entered for failure of some of the Required Actions, the entry condition shall include a specific listing of the applicable Conditions. A listing is not provided only if all Required Action failures would lead to entering the subject Condition. For TS 3.8.5, failing to complete Required Action F.1 would not allow reentering Condition E.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A105 Detailed Description

3.7.9-1
3.7.9-2
3.7.9-3
3.7.11-1
3.7.12-1

The title of current TS 3.7.9 is revised from "Fuel Storage Pool Makeup Water Sources," to "Spent Fuel Pool Makeup Water Sources" by adding "Spent" and removing "Storage."

The title of current TS 3.7.11 is revised from "Fuel Storage Pool Boron Concentration," to "Spent Fuel Pool Boron Concentration," by adding "Spent" and removing "Storage."

Current TS 3.7.11 Applicability and Required Action A.2.2 phrase “storage pool verification” is revised to “pool storage verification.”

Various other TS references to “fuel storage pool” and “spent fuel storage pool” are revised to “spent fuel pool” by deleting “storage.”

Technical Evaluation

Various locations currently use the preferred term “spent fuel pool” while others use various phrasing combinations in reference to these same pools. The FSAR more commonly refers to the “spent fuel pool” (without “storage”). To preclude any misunderstanding or confusion, the TS are revised to consistently refer to the preferred name “spent fuel pool.” In conjunction, the revised phrasing to “pool storage verification” is editorially clarified to reflect that the verification is of the stored fuel locations. These changes are designated as administrative changes and are acceptable because it does not result in technical changes to the TS.

A106 Detailed Description

3.7.10-1
3.7.10-2

The following changes have been made to TS 3.7.10, "Steam Generator (SG) Isolation Valves":

- TS Title in Header is revised to replace “Steam Generator” with “SG.”
- The LCO statement for TS 3.7.10 is revised from "The steam generator isolation valves shall be OPERABLE" to "Each SG power operated relief valve (PORV), PORV block valve, and SG blowdown isolation valve shall be OPERABLE."
- TS 3.7.10 Actions Note 1 is revised by using the acronym "SG" instead of "Steam generator."
- TS 3.7.10 Conditions A, B, C, and D include the phrase "SG isolation valve" or "SG isolation valves" as well as the name of the flow path (either PORV flow path or blowdown flow path). Conditions A, B, C, and D are revised to delete the acronym "SG" from the SG isolation valve or valves phrase and include the acronym "SG" before the flow path name.
- TS 3.7.10 Required Action B.2 is revised from "Verify that the affected SG blowdown flow path is isolated" to "Verify the affected flow path is isolated."

Technical Evaluation

The TS LCO statement uses the term "steam generator isolation valves." The intended valves as presented in the Bases for TS 3.7.10 as well as SR 3.7.10.1 are not the only valves that could be considered steam generator isolation valves. For example, feedwater valves to the steam generator are also used to "isolate" the steam generator. TS SR 3.7.10.1 defines the steam generator isolation valves as the PORVS, the PORV block valves, and the blowdown isolation valves. Therefore, for clarity and to preclude any misunderstanding, the LCO statement is changed to state that each SG PORV, PORV block valve, and SG blowdown

isolation valve is required to be Operable.

Consistent with this change, Conditions A, B, C, and D are revised to present the two flow paths (PORV and blowdown) as "SG" flow paths, and acronym "SG" has been deleted from the isolation valve phrase. This is an editorial clarification and provides consistent phrasing, which ensures the Conditions are consistent with the LCO wording. The acronym SG is used in various locations in lieu of steam generator since it has been defined in the LCO title. In addition, Required Action B.2 is revised to be consistent with the terminology used in current Required Action B.1 (which Required Action B.2 is verifying periodically). Convention also uses defined acronyms in the header; therefore “Steam Generator” is replaced with “SG” in the header.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A107 Detailed Description

3.7.10-2 Current TS 3.7.10, "Steam Generator (SG) Isolation Valves," Required Action D.2 states "Verify that the affected SG blowdown flow path is isolated." This Required Action has been deleted.

Technical Evaluation

The purpose of Required Action D.2 is to ensure an isolated blowdown flow path is periodically verified to remain isolated. While this Required Action is appropriate, it is redundant to TS Required Action B.2. Condition B is entered when a SG blowdown flow path has an inoperable isolation valve. Required Action B.1 requires the associated penetration is isolated, and Required Action B.2 ensures it is periodically verified to remain isolated. Condition D is entered when both isolation valves in a SG blowdown flow path are inoperable. However, when Condition D is entered, Condition B is still required. Thus, even when both isolation valves in a SG blowdown flow path are inoperable, Required Action B.2 must continue to be met. Thus, there is no reason to include a similar Required Action in Action D. Not including this type of Required Action in the two valve inoperable Condition is consistent with other TS Actions. For example, TS 3.6.3 Required Action A.2, which is required when a containment isolation valve in a penetration is inoperable, includes the periodic verification of the isolated flow path. However, the Action for two inoperable containment isolation valves in a flow path (TS 3.6.3 Action B), does not include this periodic verification. This change establishes Actions consistent with the presentation in NUREG-1431 for similar conditions. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A108 Detailed Description

TS 3.8.6, “Distribution Systems – Shutdown,” Required Action A.1 is revised from “Declare associated supported required features inoperable” to “Declare affected

3.8.6-1 required features inoperable" (replacing "associated supported" with "affected").

Technical Evaluation

This Required Action is similar to TS 3.8.4, "Inverters – Shutdown," Required Action A.1, which used the phrasing "affected" in lieu of the phrase "associated supported" that is used in TS 3.8.6. While both phrases convey the same intent, for consistency, the preferred phrase "affected" is selected. This editorial wording preference change is designated as administrative changes and is acceptable because it does not result in technical changes to the TS.

A109 Detailed Description

3.7.11-1 The TS 3.7.11, "Fuel Storage Pool Boron Concentration," Applicability is revised by indenting the second and third lines.

Technical Evaluation

The TS 3.7.11 Applicability is "When fuel assemblies are stored in the fuel storage pool and a fuel storage pool verification has not been performed since the last movement of fuel assemblies in the fuel storage pool." However, this Applicability statement rolls over onto subsequent lines and the subsequent lines are not indented as required by TSTF-GG-05-01, subsection 2.5.4.b.1. The subsequent lines for this Applicability statement are indented in the proposed Applicability.

This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide clarification and for consistency with TSTF-GG-05-01. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A110 Detailed Description

3.7.9-1 Current TS 3.7.9, "Fuel Storage Pool Makeup Water Sources," Required Action A.1 Note that states (as modified by DOC L05) "LCO 3.0.3 is not applicable," is revised by moving the Note to the beginning of the Actions Table.

Technical Evaluation

This change is made to provide more consistency with other Notes of this type where this Note is most commonly located at the beginning of the Actions Table. For example, current TS 3.7.11, "Fuel Storage Pool Boron Concentration," includes this type of Note at the beginning of the Actions Table. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A111 Detailed Description

TS 3.7.12, "Spent Fuel Pool Storage," Figure 3.7.12-1, provides a Region 2

3.7.12-2 loading curve, based on burnup and initial enrichment. Figure 3.7.12-1 is revised to clearly specify the acceptable region and the unacceptable region.

Technical Evaluation

The Acceptable Region of the Region 2 loading curve is the area above and to the left of the curve. This is clearly identified by the title of Figure 3.7.12-1, "Minimum Fuel Assembly Burnup Versus Initial Enrichment for Region 2 Spent Fuel Cells." This is also identified in Table 7.4 of the document referenced in the TS Bases (Reference 2). This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide clarification. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A112 Detailed Description

3.8.5-1 TS 3.8.5, “Distribution Systems – Operating," and TS 3.8.6, “Distribution Systems – Shutdown,” are revised to delete “bus” from the name for subsystem “AC instrument and control.”

TS 3.8.5 LCO is revised to specify the two electrical power distribution subsystems in a list format.

TS 3.8.5, Conditions A, B, C, D, and E are revised to move “Division” or “Divisions” such that the Condition reads “division inoperable” or “divisions inoperable”; for example Condition A is revised to “One AC instrument and control division inoperable.”

TS 3.8.5 Required Actions A.1, B.1, C.1, and D.1 are revised to add “division” such that each of these “Restore” Required Action ends with “division to OPERABLE status.” For example, Required Action A.1 is revised to “Restore AC instrument and control division to OPERABLE status.”

TS 3.8.5 Required Action C.1 and Required Action D.1 are revised from “Restore...” to “Restore one... .”

TS 3.8.5 Condition E is revised to remove “divisions with” and “distribution subsystems.”

Technical Evaluation

The nomenclature used for the two Class 1E electrical power distribution subsystems is clarified by deleting “bus” from the name for subsystem “AC instrument and control” and the TS 3.8.5 LCO reformatted to clarify that both DC and AC instrument and control divisions are electrical power distribution subsystems. The Actions are revised to present inoperabilities of divisions.

As described in the TS Bases, current TS 3.8.5 Action A provides the requirements when one division of the AC instrument and control electrical power distribution subsystem is inoperable and current Action B provides the requirements when one division of the DC electrical power distribution subsystem is inoperable. Current TS 3.8.5 Actions C and D provide the requirements when

two divisions of the AC instrument and control electrical power distribution subsystem are inoperable and two divisions of the DC electrical power distribution subsystem are inoperable, respectively. The revised wording of the Conditions and Required Actions provides for clarity and consistency without changing the intent or technical requirements. Therefore, usability is enhanced.

In the event two divisions of the AC instrument and control electrical power distribution subsystem are inoperable, once a single division of AC instrument and control is restored to Operable status, TS 3.8.5 Condition C no longer applies. Thus Required Action C.1 is clarified to “Restore one AC instrument and control division to OPERABLE status." Only a single AC instrument and control division must be restored within the required 2 hours. Since Action A was also entered when the first division of AC instrument and control became inoperable, Action A governs the restoration of the remaining inoperable AC instrument and control division. Therefore, for clarity and consistency with the actual requirements, proposed TS 3.8.5 Required Actions C.1 and D.1 only require the restoration of one AC instrument and control division and one DC division, respectively. Minor wording clarification and reformatting are made for consistency and more standard TS phrasing. Since these changes do not result in any technical change to the current requirements, they are considered administrative. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A113 Detailed Description

3.8.7-3 TS 3.8.7, “Battery Parameters,” is revised to add the word “float” to SR 3.8.7.2 and SR 3.8.7.5. Specifically, SR 3.8.7.2 is revised from “Verify each battery pilot cell voltage is ≥ 2.07 V” to “Verify each battery pilot cell float voltage is ≥ 2.07 V” and SR 3.8.7.5 is revised from “Verify each battery connected cell voltage is ≥ 2.07 V” to “Verify each battery connected cell float voltage is ≥ 2.07 V.”

Technical Evaluation

The word “float” is added to SR 3.8.7.2 and SR 3.8.7.5 for consistency with TS 3.8.7 Condition A. Condition A states, “One or more batteries in one division with one or more battery cells float voltage < 2.07 V.”

The addition of the word “float” to SR 3.8.7.2 and SR 3.8.7.5 is consistent with the Bases. The SR 3.8.7.2 and SR 3.8.7.5 Bases state, “SRs 3.8.7.2 and 3.8.7.5 require verification that the cell float voltages are equal to or greater than the short term absolute minimum voltage of 2.07 V.” The revised presentation of SR 3.8.7.2 and SR 3.8.7.5 is consistent with NUREG-1431 SR 3.8.6.2 and SR 3.8.6.5.

The proposed changes are for consistency within TS 3.8.7. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A114 Detailed Description

3.9.1-1 TS 3.9.1, "Boron Concentration," includes a Note to the Applicability that states "Only applicable to the fuel transfer canal and the refueling cavity when connected

to the RCS." This Note is revised to read "Applicable to the fuel transfer canal and the refueling cavity only when connected to the RCS."

Technical Evaluation

This change for wording preference is made to provide clarification. The current wording of the Note could imply that "only" the fuel transfer canal and the refueling cavity boron concentration are required to meet the LCO when these two areas are connected to the Reactor Coolant System (RCS). However, the correct meaning of the Note is that the boron concentration limit is applicable to the two areas only when the two areas are actually connected to the RCS. To alleviate any misunderstanding of the Note, the term "only" is moved to reflect the correct meaning. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A115 Detailed Description

TS 3.9.2, "Unborated Water Source Flow Paths," is revised as follows:

3.9.2-1

- TS 3.9.2 LCO statement is revised from "Each unborated water source flow path shall be isolated," to "One valve in each unborated water source flow path shall be secured in the closed position."
- TS 3.9.2 Condition A is revised from "One or more flow paths not isolated," to "One or more unborated water source flow paths with no valve secured in the closed position."
- TS 3.9.2 Required Action A.2 is revised from "Initiate actions to isolate flow paths" to "Initiate actions to secure one valve in the flow path in the closed position."
- SR 3.9.2.1 is revised from "Verify each unborated water source flow path is isolated by at least one valve secured in the closed position," to “Verify one valve in each unborated water source flow path is secured in the closed position."

Technical Evaluation

These changes are made to make the LCO, Action, and SR consistent with each other. The current LCO requires that each unborated water source flow path shall be isolated. One valve secured in the closed position, as is required by current SR 3.9.2.1, ensures this requirement is met. Therefore, to provide clarity between the LCO and SR, the LCO, Action (Condition and Required Action), and SR are all revised to clearly state that one valve per unborated water source flow path is required to be secured in the closed position. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A116 Detailed Description

TS 4.2.2, "Control Rod and Gray Rod Assemblies," uses the term "MSHIM load follow operation." This is revised to "Mechanical Shim (MSHIM) load follow

4.0-1 operation."

Technical Evaluation

This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide consistency with TSTF-GG-05-01, subsection 3.2.2.a. Subsection 3.2.2.a states that upon the first reference in each Specification or Bases to a phrase for which an abbreviation is desired to be used, use the full phrase followed by the acronym or initialism set off by parentheses. This is the first use of the acronym "MSHIM" in Section 4.0. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A117 Detailed Description

TS 4.3.1, "Criticality," paragraph 4.3.1.1.c requires:

4.0-2

> A nominal 10.93 inch center-to-center distance between fuel assemblies placed in Region 1, a nominal 9.04 inch center-to-center distance between fuel assemblies placed in Region 2 of the spent fuel storage racks, and a nominal 11.65 inch center-to-center distance between fuel assemblies placed in the Defective Fuel Cells.

Paragraph 4.3.1.1.c is revised to split these three requirements into separate TS items. Specifically, TS 4.3.1.1.c is revised to:

c. A nominal 10.93 inch center-to-center distance between fuel assemblies placed in Region 1 of the spent fuel storage racks;

d. A nominal 9.04 inch center-to-center distance between fuel assemblies placed in Region 2 of the spent fuel storage racks;

e. A nominal 11.65 inch center-to-center distance between fuel assemblies placed in the Defective Fuel Cells.

Subsequent numbers are revised due to this change (i.e., current TS 4.3.1.1.d, e, and f are now TS 4.3.1.1.f, g, and h).

Technical Evaluation

This change (wording preferences, editorial changes, reformatting, revised numbering, etc.) is made to provide clarification and for consistency with NUREG-1431 numbering. Specifically, NUREG-1431 has separate TS numbers for center-to-center distance requirements for the two types of fuel storage racks (i.e., high density and low density), as shown in NUREG-1431, TS 4.3.1.1.c and d. TS 4.3.1.1.c currently provides the center-to-center distances between fuel assemblies for Regions 1 and 2 and the Defective Fuel Cells. Similar to NUREG-1431, the requirements of TS 4.3.1.1.c are revised to be split into three separate TS items: TS 4.3.1.1.c (for Region 1), TS 4.3.1.1.d (for Region 2), and TS 4.3.1.1.e (for Defective Cells). This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A118 Detailed Description

5.5-1 through 5.5-14

TS 5.5, "Programs and Manuals," is revised by renumbering the requirements within each of the following programs and manuals:

- TS 5.5.1, "Offsite Dose Calculation Manual (ODCM);
- TS 5.5.2, "Radioactive Effluent Control Program;"
- TS 5.5.7, "Safety Function Determination Program (SFDP);"
- TS 5.5.8, "Containment Leakage Rate Testing Program;"
- TS 5.5.13, "Ventilation Filter Testing Program (VFTP);"

Technical Evaluation

The current numbering scheme used in each of the individual programs is not consistent. For example, the current presentation of TS 5.5.1, "Offsite Dose Calculation Manual (ODCM)," has two paragraphs designated as "5.5.1.a." This can lead to confusion regarding which requirement is being referenced. In some programs, such as the current 5.5.7, "Safety Function Determination Program (SFDP)," three paragraphs are not designated with any letter or number; again leading to possible confusion.

The revised format corrects these issues by appropriately numbering each paragraph within each individual program. The numbering scheme uses the three digit program number as the top level number, for example, 5.5.7, for the overall program. The first sublevel is designated as a lower case letter. The second sublevel is designated by an Arabic number, and the third sublevel is designated by a lower case Roman Numeral.

These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A119 Detailed Description

5.5-3

TS 5.5.3, "Inservice Testing Program," paragraph a, is revised from "Testing frequencies specified in the ASME OM Code and applicable Addenda as follows:" to "Testing frequencies applicable to the ASME code for Operations and Maintenance of Nuclear Power Plants (ASME OM Code) and applicable Addenda as follows:"

Technical Evaluation

TSTF-GG-05-01, subsection 3.2.2.a states that upon the first reference in each Specification to a phrase for which an abbreviation is desired to be used, use the full phrase followed by the acronym or initialism set off by parenthesis. The current TS 5.5.3, paragraph a references the American Society of Mechanical Engineers (ASME) OM Code without defining the initialism. This change properly defines the initialism.

These changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to provide clarification and for consistency with TSTF-GG-05-01. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A120 Detailed Description

5.5-7 TS 5.5.7, "Safety Function Determination Program (SFDP)," is revised from "Additionally, other appropriate actions may be taken as a result of the supported system inoperability" to "Additionally, other appropriate actions may be taken as a result of the support system inoperability" (revising “supported” to “support”).

TS 5.5.7, paragraph c, is revised from "...as a result of multiple support systems inoperabilities" to "...as a result of multiple support system inoperabilities" (revising “systems” to “system”).

Technical Evaluation

These changes to TS 5.5.7 are made for consistency with NUREG-1431, TS 5.5.15, "Safety Function Determination Program (SFDP)." These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

A121 Detailed Description

5.5-9 TS 5.5.10, "Component Cyclic or Transient Limit," reference to Table 3.9-1A is revised to eliminate “A”:

Technical Evaluation

Eliminating the “A” in TS 5.5.10, Component Cyclic or Transient Limit, reference to Table 3.9-1A, provides the correct reference. Final Safety Analysis Report (FSAR) Table 3.9-1 is “Reactor Coolant System Design Transients.” There is no FSAR Table 3.9-1A.

This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A122 Detailed Description

5.5-9 TS 5.5.8, "Containment Leakage Rate Testing Program," paragraph d.1, Type B and Type C acceptance criterion is revised from "$\leq 0.60\ L_a$," to "$< 0.60\ L_a$."

Technical Evaluation

Currently, TS 5.5.8, paragraph d.1 states that the acceptance criterion for Type B and Type C leakage rate testing is "$\leq 0.60\ L_a$." However, current TS 5.5.8 requires that the program be in accordance with the guidelines contained in Regulatory Guide 1.163, “Performance-Based Containment Leak-Test Program,” dated September 1995. Regulatory Guide 1.163 endorses Nuclear Energy Institute

(NEI) guidance document NEI 94-01, Revision 0, dated July 26, 1995, "Industry Guideline for Implementing Performance Based Option of 10 CFR 50 Appendix J." Section 8.0 of NEI 94-01 specifies that the combined leakage rate of all penetrations and valves subject to Type B and C tests shall be less than 0.60 L_a. The current TS 5.5.8 Type B and Type C acceptance criteria is less restrictive than the acceptance criteria specified by the TS reference to Regulatory Guide 1.163, since no exception to the regulation is stated in the program description. This change provides for consistency and results in no technical change with respect to the acceptance criteria. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

A123 Detailed Description

5.5-11 TS 5.5.13, "Ventilation Filter Testing Program (VFTP)," second paragraph item iv) is revised from “after any” to “following.”

Technical Evaluation

Currently, TS 5.5.13 third paragraph item iii) uses “following”; which is consistent with the language in Regulatory Guide 1.52, Revision 3. The second paragraph being revised currently has the wording of “after any,” which is inconsistent with the language in Regulatory Guide 1.52, Revision 3, and inconsistent with the same frequency in the third paragraph.

This change is designated as an administrative change and is acceptable because it establishes wording consistent with Regulatory Guide 1.52, Revision 3, and other TS wording, and does not result in technical changes to the TS.

A124 Detailed Description

5.5-13 TS 5.5.14, "Setpoint Program (SP)," paragraph c.1.i is revised to clarify that the "requirement" being discussed is the surveillance requirement.

Technical Evaluation

Currently, paragraph c.1.i states "If the as-found value of the instrument channel trip setting differs from the previously recorded as-left value by more than the pre-defined test acceptance criteria band (i.e., the specified AFT), then the instrument channel shall be evaluated to verify that it is functioning in accordance with its design basis before declaring the requirement met and returning the instrument channel to service." However, the current statement is not specific with respect to the "requirement" that is met. This change revises the statement by replacing "requirement" with "surveillance requirement" so that the statement is specific.

As stated in paragraph c, this requirement is currently specific to performance of Channel Calibration, Channel Operational Test (COT), and Reactor Trip Channel Operational Test (RTCOT). These requirements are TS surveillance

requirements.

This change is made to provide clarification. The change is designated as administrative and is acceptable because it does not result in technical change to the TS.

A125 Detailed Description

5.6-2
5.6-3
5.6-4

Current TS 5.6.5, "CORE OPERATING LIMITS REPORT (COLR)," is revised to correct referenced TS numbers. Where TS titles are quoted current TS 5.6.5 is revised to reflect actual TS title.

Technical Evaluation

These changes (revised numbering and correcting titles) are made to provide clarification and for consistency with the remainder of the TS. These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the TS.

Attachment 2

Detailed Description of Changes and Technical Evaluations

More Restrictive Changes

The following changes are designated as More Restrictive:

DOC / Affected Pages	Detailed Description and Technical Justification
M01	**Detailed Description**
1.1-5 3.1.8-2 3.3.1-9 3.3.1-10 5.5-13	Current TS Section 1.1 Definition of Reactor Trip Channel Operational Test (RTCOT) is deleted. Current TS 3.1.8, "PHYSICS TESTS Exceptions – MODE 2," current SR 3.1.8.1 requirement to perform a "REACTOR TRIP CHANNEL OPERATIONAL TEST," is revised to "COT." Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," current SR 3.3.1.7 requirement to "Perform RTCOT," is revised to "Perform ACTUATION LOGIC TEST." Current TS 3.3.1, current SR 3.3.1.8 requirement to "Perform RTCOT in accordance with Setpoint Program," is revised to "Perform COT in accordance with Setpoint Program." Current TS 3.3.1, current SR 3.3.1.9 requirement to "Perform RTCOT in accordance with Setpoint Program," is revised to "Perform COT in accordance with Setpoint Program." The Current TS 5.5.14, "Setpoint Program," current paragraph c, reference to "REACTOR TRIP CHANNEL OPERATIONAL TEST (RTCOT)," is deleted. **Technical Evaluation** Current TS Section 1.1 defines an RTCOT as "A RTCOT shall be the injection of a simulated or actual signal into the reactor trip channel as close to the sensor as practicable to verify OPERABILITY of the required interlock and/or trip functions. The RTCOT may be performed by means of a series of sequential, overlapping, or total channel steps so that the entire channel is tested from the signal conditioner through the trip logic." The revised TS Section 1.1 definition for Actuation Logic Test (refer to DOC A001 and DOC L01) states "An ACTUATION LOGIC TEST shall be the application of various simulated or actual input combinations in conjunction with each possible interlock logic state required for OPERABILITY of a logic circuit and the verification of the required logic output. The ACTUATION LOGIC TEST shall be conducted such that it provides component overlap with the actuated device." The revised TS Section 1.1 definition for Channel Operational Test (COT) (refer to DOC A001) states "A COT shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY of all devices in the channel required for channel OPERABILITY. The COT shall include adjustments, as necessary, of the required alarm, interlock, and trip setpoints required for channel OPERABILITY such that the setpoints are within the

necessary range and accuracy. The COT may be performed by means of any series of sequential, overlapping, or total channel steps."

Current SR 3.3.1.8 and current SR 3.3.1.9 require an RTCOT, in accordance with the Setpoint Program to be performed on each TS required automatic protection instrumentation Function. Each Function requiring performance of an RTCOT by either current SR 3.3.1.8 or current SR 3.3.1.9 also requires performance of a Channel Calibration by either current TS 3.3.1.10 or SR 3.3.1.11. Therefore, the Functions referencing current SR 3.3.1.8 and SR 3.3.1.9 contain adjustable devices.

The definition of RTCOT does not explicitly require adjustments of required alarm, interlock, and trip setpoints required for channel OPERABILITY such that the setpoints are within the necessary range and accuracy. The Bases associated with the RTCOT describe these adjustments, but the Bases are intended to clarify, not provide additional requirements. The COT explicitly requires these adjustments. Therefore, the definition of COT more closely aligns with the description of the testing provided in the Bases for current SR 3.3.1.8 and current SR 3.3.1.9. Use of COT for these SRs is consistent with similar testing specified in NUREG-1431, TS 3.3.1. Use of COT is also consistent with testing performed on other instrumentation specified in the current TS. Therefore, references to RTCOT are replaced with reference to COT in current SR 3.3.1.8 and current SR 3.3.1.9. This change is more restrictive because adjustments of required alarm, interlock, and trip setpoints required for channel OPERABILITY such that the setpoints are within the necessary range and accuracy are explicitly required.

Current SR 3.1.8.1 requires performance of a Reactor Trip Channel Operational Test on power and intermediate range channels per current SR 3.3.1.8 and SR 3.3.1.9. Reference to "REACTOR TRIP CHANNEL OPERATIONAL TEST," is revised to "COT," for consistency with changes made to current SR 3.3.1.8 and SR 3.3.1.9. SR 3.1.8.1 is revised to reference new SR 3.3.1.6, new SR 3.3.1.7, and new SR 3.3.3.2.

Current SR 3.3.1.7 requires an RTCOT to be performed on RTS Automatic Trip Logic and on actuation inputs from the Engineered Safety Feature Actuation System. These Functions are logic functions, as described in the associated Bases. However, NUREG-1431 specifies the Actuation Logic Test for similar Functions. In addition, use of Actuation Logic Test is consistent with testing performed on other trip logic in the current TS. The definition of RTCOT requires testing the channel through the trip logic; however, it does not require that the test must provide overlap with the actuated device, as does the definition of Actuation Logic Test. Therefore, reference to RTCOT is replaced with Actuation Logic Test in current SR 3.3.1.7. This change is more restrictive because Actuation Logic Test explicitly requires overlap with the actuated device.

The current TS 5.5.14 reference to RTCOT is not appropriate, because the current Section 1.1 definition of RTCOT does not include a requirement for a Channel Calibration. Therefore reference to RTCOT is deleted. This is acceptable because testing requirements for RTCOT that are intended to involve Channel Calibration have been revised to COT, as appropriate, and Setpoint Program requirements for COT are retained.

With these changes, RTCOT is not required by the TS. Therefore, the Section 1.1 definition is deleted. The changes result in consistency with the use of Actuation Logic Test and COT in other TS requirements, such as in current TS 3.3.2, are consistent with the intent of the required TS testing, and are consistent with NUREG-1431.

These changes are designated as more restrictive because they explicitly require testing to overlap the actuated device, and channel calibrations, as appropriate.

M02 Detailed Description

3.3.1-1
3.3.1-3
3.3.1-4
3.3.1-5
3.3.1-6
3.3.2-1
3.3.2-3
3.3.2-4
3.3.2-8

Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," does not specify Actions for inoperability of more than two inoperable automatic initiation channels – resulting in entry into LCO 3.0.3 when three or more channels are inoperable. The exceptions to this are Intermediate Range Neutron Flux and Source Range Neutron Flux channels. However, current TS 3.3.1 does not specify Actions for four inoperable channels for these two Functions – resulting in entry into LCO 3.0.3 when all four Intermediate Range Neutron Flux or Source Range Neutron Flux channels are inoperable.

Current TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," does not specify Actions for inoperability of more than two inoperable automatic initiation channels – resulting in entry into LCO 3.0.3 when three or more channels are inoperable while in Modes 1, 2, 3, and 4, and entry into current LCO 3.0.8 while in Modes 4 and 5. The following current TS Table 3.3.2-1 Functions are exceptions to this in that they contain actions for one required channel inoperable but not for two inoperable channels and are also addressed with this revision:

- Function 13.b, "Coincident with Startup Feedwater Flow – Low,"
- Function 18.b, “Reactor Trip, P-4;"
- Function 20.a, “Control Room Air Supply Radiation – High 2”; and
- Function 24.a, “Spent Fuel Pool Level – Low.”

Similarly, for manual actuation, Actions are not currently provided in current TS 3.3.1 or current TS 3.3.2 for more than one inoperable channel – resulting in entry into LCO 3.0.3 when two manual actuation channels are inoperable.

Revisions are made to provide new Conditions to address inoperability of all channels as follows:

- New TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," Condition C second portion
- New TS 3.3.2, "Reactor Trip System (RTS) Source Range Instrumentation," Condition F addition of “or more”
- New TS 3.3.3, "Reactor Trip System (RTS) Intermediate Range Instrumentation," Condition D addition of “or more” for power levels above P-6, and applying this Action to power levels below P-6, by removing Condition modifier “THERMAL POWER between P-6 and P-10”
- New TS 3.3.4, "Reactor Trip System (RTS) Engineered Safety Feature

Actuation System (ESFAS) Instrumentation," Conditions B and D, second portions

- New TS 3.3.5, "Reactor Trip System (RTS) Manual Actuation," Conditions B and C, second portions
- New TS 3.3.6, "Reactor Trip System (RTS) Automatic Trip Logic," Conditions B and D, second portions
- New TS 3.3.7, "Reactor Trip System (RTS) Trip Actuation Devices," Conditions C and D second portions
- New TS 3.3.8, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Condition C (second portion)
- New TS 3.3.9, "Engineered Safety Feature Actuation System (ESFAS) Manual Initiation," Condition C (second portion)
- New TS 3.3.11, "Engineered Safety Feature Actuation System (ESFAS) Startup Feedwater Flow Instrumentation," Condition B (second portion)
- New TS 3.3.12, "Engineered Safety Feature Actuation System (ESFAS) Reactor Trip Initiation," Condition B (second portion)
- New TS 3.3.13, "Engineered Safety Feature Actuation System (ESFAS) Control Room Air Supply Radiation Instrumentation," Conditions C and D (second portions)
- New TS 3.3.14, "Engineered Safety Feature Actuation System (ESFAS) Spent Fuel Pool Level Instrumentation," Condition B (second portion)
- New TS 3.3.15, "Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Operating," Condition B (second portion)
- New TS 3.3.16, "Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Shutdown," Conditions B and C (second portions)

Technical Evaluation

Current TS LCO 3.0.3 is applicable in only Modes 1, 2, 3, and 4, and states:

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

a. MODE 3 within 7 hours; and

b. MODE 4 within 13 hours; and

c. MODE 5 within 37 hours.

Therefore, for current TS 3.3.1 and TS 3.3.2 for Modes 1, 2, 3, and 4 that do not provided Actions addressing all required channels, upon discovery of those inoperabilities, LCO 3.0.3 would apply. The intent of LCO 3.0.3 (as stated in the TS Bases) is to “impose time limits for placing the unit in a safe MODE or other specified condition when operation cannot be maintained within the limits for safe operation as defined by the LCO and its ACTIONS.”

Current TS LCO 3.0.8 is applicable in only Modes 4 and 5; however, it is deleted as addressed in DOC L05. Therefore, the Required Actions imposed as a result of

changes described below for Modes 5 and 6 reflect a more restrictive requirement that provides explicit compensatory actions applicable to the specific inoperability.

The Actions for inoperable RTS and ESFAS instrumentation provide restoration time and/or compensatory action allowances (e.g., place the inoperable channel in trip); but only for inoperability of some of the channels (e.g., 1 or 2 out of 4 required channels, typically). If these restoration and/or compensatory actions cannot be met in the required time, "default" actions are provided, which are designed to place the unit in a safe Mode or other specified condition – typically, actions that result in exiting the Applicability for that Function.

The shutdown actions of LCO 3.0.3 are typical of "default" actions throughout the TS that direct plant shutdown to exit the Applicability, with the exception that LCO 3.0.3 includes an additional 1 hour before the shutdown is required to be initiated.

The revisions described in this change address multiple-channel inoperability. The revisions will immediately impose the "default" Actions for that Function – without allowance for the 1 hour delay that is provided in LCO 3.0.3. Furthermore, the Function-specific "default" actions impose requirements intended to establish safe operation that are not necessarily imposed in LCO 3.0.3 or current LCO 3.0.8. Since each Function-specific default action is specifically considering that Function's safety-basis, the default actions necessarily result in more appropriate actions than the generic actions of LCO 3.0.3 and LCO 3.0.8. Specifically, the Actions for each new Condition associated with this change for Modes 1, 2, 3, and 4, are compared to LCO 3.0.3, and in each case, as shown below, the new Actions are equivalent to or more restrictive than the actions of LCO 3.0.3. For new Conditions associated with this change for Modes 5 and 6, the actions are more restrictive as a result of changes described in DOC L05.

- New TS 3.3.1, Condition C: This leads to new default Action D or Action E. Action D to be in Mode 3 in 6 hours (i.e., more restrictive than LCO 3.0.3) and Action E to be below P-10 (approximately 10% RTP) in 6 hours (i.e., more restrictive than LCO 3.0.3).
- New TS 3.3.2, Condition F: This action results in exiting the Applicability immediately (i.e., more restrictive than LCO 3.0.3).
- New TS 3.3.3, Condition D: The change imposes action to "Suspend operations involving positive reactivity additions – Immediately." The remainder of Action D includes actions to reduce power below P-6 in 2 hours (i.e., more restrictive than LCO 3.0.3) and be in Mode 3 within 7 hours (equivalent to LCO 3.0.3). These actions are not found in LCO 3.0.3.
- New TS 3.3.4, Conditions B and D: This change imposes action to be in Mode 3 in 6 hours (i.e., more restrictive than LCO 3.0.3) and action to fully insert all rods and place the Plant Control System in a condition incapable of rod withdrawal within 1 hour (these actions are not found in LCO 3.0.3).
- New TS 3.3.5, Conditions B and C: This change imposes action to be in Mode 3 in 6 hours (i.e., more restrictive than LCO 3.0.3) and action to fully insert all rods and place the Plant Control System in a condition incapable of rod withdrawal within 1 hour (these actions are not found in LCO 3.0.3).
- New TS 3.3.6, Conditions B and D: This change imposes action to be in

Mode 3 in 6 hours (i.e., more restrictive than LCO 3.0.3) and action to fully insert all rods and place the Plant Control System in a condition incapable of rod withdrawal within 1 hour (these actions are not found in LCO 3.0.3).

- New TS 3.3.7, Conditions C and D: This change imposes action to be in Mode 3 in 6 hours (i.e., more restrictive than LCO 3.0.3) and action to fully insert all rods and place the Plant Control System in a condition incapable of rod withdrawal within 6 hours (these actions are not found in LCO 3.0.3).
- New TS 3.3.8, Condition C: This leads to new default Actions D, E, G, H, O, and P, which have one or more of the actions to be in Mode 3 in 6 hours, Mode 4 in 12 hours, and Mode 5 in 36 hours. Action C also leads to new default Action F that in requires Mode 3 in 6 hours (more restrictive than the time allowed by LCO 3.0.3) and Mode 4 "with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS)" in 24 hours. The specific RNS alignment and RCS heat removal requirement is not a requirement found in LCO 3.0.3. Additionally, Action C leads to new default Action I, which requires "Declare affected isolation valve(s) inoperable – Immediately." New Action I is discussed in DOC L12. For Functions with Applicability in Mode 4 (i.e., overlapping with the applicability of LCO 3.0.3), this Condition leads to a new default Actions M and J. New Action M requires being in Mode 5 in 12 hours (more restrictive than the time allowed by LCO 3.0.3) and requires suspending positive reactivity additions and initiating action to establish pressurizer level ≥ 20% with RCS pressure boundary intact within 12 hours (which are actions not required by LCO 3.0.3). New Action J if three or more channels are inoperable requires being in Mode 5 in 37 hours (matching the time allowed by LCO 3.0.3) and requires initiating action to establish pressurizer level ≥ 20% with RCS pressure boundary open within 180 hours (which is an action not required by LCO 3.0.3).
- New TS 3.3.9, Condition C: This leads to new default Actions E and L, which impose actions to be in Mode 3 in 6 hours and Mode 5 in 36 hours (more restrictive than the time allowed by LCO 3.0.3). Action C also leads to new default Action D that requires Mode 3 in 6 hours (more restrictive than the time allowed by LCO 3.0.3) and Mode 4 "with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS)" in 24 hours. The specific RNS alignment and RCS heat removal requirement is not a requirement found in LCO 3.0.3. Additionally, Action C leads to new default Action F, which requires "Declare affected isolation valve(s) inoperable – Immediately." New Action F is discussed in DOC L12. For Functions with applicability in Mode 4 (i.e., overlapping with the applicability of LCO 3.0.3), this leads to new default Action G that requires being in Mode 5 in 12 hours (more restrictive than the time allowed by LCO 3.0.3) and requires initiating action to open the RCS pressure boundary in 12 hours (which is an action not required by LCO 3.0.3), Additionally, new default Action J requires (in part) to be in Mode 5 in 12 hours (more restrictive than the time allowed by LCO 3.0.3) and requires suspending positive reactivity additions (which is an action not required by LCO 3.0.3). Other Action J actions apply once outside the applicability of LCO 3.0.3.

- New TS 3.3.11, Condition A leads to default Action B, which requires Mode 3 in 6 hours (more restrictive than the time allowed by LCO 3.0.3) and Mode 4 “with the RCS cooling provided by the RNS" in 24 hours. The specific RNS alignment and RCS heat removal requirement is not a requirement found in LCO 3.0.3.
- New TS 3.3.12, Condition B: This new default Action requires being in Mode 3 in 6 hours and Mode 4 in 12 hours (more restrictive than the time allowed by LCO 3.0.3).
- New TS 3.3.13, Condition C: For applicability of Modes 1, 2, 3, and 4 (i.e., overlapping with the applicability of LCO 3.0.3) new default Action D being in Mode 3 in 6 hours and Mode 5 in 36 hours (more restrictive than the time allowed by LCO 3.0.3).
- New TS 3.3.15, Condition B (second portion): This new default Action B, which requires be in Mode 3 in 6 hours and Mode 5 in 36 hours (more restrictive than the time allowed by LCO 3.0.3).

Since the revised actions that explicitly address multiple inoperable channels that are not currently addressed (and therefore default to LCO 3.0.3) are in each instance more restrictive than the generic LCO 3.0.3 actions, and are actions appropriate for the specific affected function, these changes do not introduce any adverse impact on public health and safety.

M03 Detailed Description

Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation,"
3.3.3-3 Table 3.3.3-1, "Post-Accident Monitoring Instrumentation," Function 18, "Remotely Operated Containment Isolation Valve Position," is renamed as "Penetration Flow Path Remotely Operated Containment Isolation Valve Position." The associated required channels/divisions column is revised from "1/valve," to "2 per penetration flow path." In addition, new footnote (c) stating "Only one position indication channel is required for penetration flow paths with only one installed control room indication channel," is added to Function 18 required channels/divisions description.

Technical Evaluation

Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," is renumbered as TS 3.3.17 as discussed in DOC A028.

Regulatory Guide 1.97, Revision 3, PAM requirements include redundancy for required monitoring functions. The current TS 3.3.3 Actions are constructed based on loss of redundancy (Action A, one channel inoperable) and loss of parameter monitoring (Action C, two channels inoperable). Current TS Table 3.3.3-1, Function 18 currently requires one channel of valve position indication to be Operable for each active Containment Isolation Valve (CIV).

The intent of the requirement is to support the ability to monitor the Containment operability. The status of the containment isolation valve positions is to ensure that the status of each penetration is known. With respect to CIV position

indication, the function being monitored is the status of the containment penetrations. However, the current presentation of "1/valve" is not consistent with specifying the redundancy requirement related to each containment penetration flow path. With the current presentation, the Function is interpreted to be valve position; with only one required channel for each valve position Function. As such, only Action A and Action B would ever apply. Because there are not "two required channels" as this current Function is presented, Actions C, D, and E would never apply.

The proposed change requires one position indicator for each active CIV in a penetration flow path (i.e., two Operable indications per flow path). This is sufficient to redundantly verify the isolation status of each isolable penetration.

For containment penetrations with only one active CIV having control room indication, footnote (c) is added to clarify that, for penetrations with only one active CIV, a single channel of valve position indication is required to be Operable. This is sufficient to redundantly verify the isolation status of each isolable penetration either via indicated status of the active valve, as applicable, and prior knowledge of a passive valve, or via system boundary status.

This change is designated as more restrictive because it clarifies that there are two required channels for each penetration flow path Function, such that Action C would be required when two CIV position indications are not Operable for any one penetration flow path and it allows for separate Condition entry for each penetration flow path. This change is consistent with NUREG-1431, TS 3.3.3, Table 3.3.3-1, Function 9 requirements, and with TSTF-295-A, "Modify Note 2 to Actions of PAM Table to Allow Separate Condition Entry for Each Penetration."

M04 Detailed Description

3.7.10-1 Current TS 3.7.10, "Steam Generator (SG) Isolation Valves," Action A as it relates to the SG PORVs is revised to add new Required Action A.2 to “verify the affected flow path is isolated” once per 31 days.

Technical Evaluation

Current TS 3.7.10 Action A provides the requirements when one or more PORV flow paths have one isolation valve inoperable. Required Action A.1 requires isolation of the flow path by use of at least one closed and deactivated automatic valve within 72 hours. Operation with an inoperable isolation valve can then continue indefinitely with no further requirements. The new Required Action A.2 ensures that the flow path that was isolated to comply with Required Action A.1 is periodically verified to remain isolated. This proposed Required Action ensures the closure required of Required Action A.1 continues to be met when a PORV is inoperable, consistent with other similar applications. This new Required Action is also consistent with the similar Required Action for an isolated blowdown flow path (current Required Action B.2). The new periodic Completion Time is acceptable since it is consistent with the current time for inoperable containment isolation valves in TS 3.6.3. Refer to DOC M11 which moves this action from TS 3.6.3 as it

relates to the PORV block valve periodic verification. This change is designated as more restrictive since the current TS 3.7.10 Actions do not include a periodic verification when a PORV is inoperable.

M05 Detailed Description

3.4.3-1 Current TS 3.4.3, "RCS Pressure and Temperature (P/T) Limits," Required Action B.2 is revised from "Be in MODE 4 with RCS pressure < 500 psig," to "Be in MODE 5." The proposed change also revises the associated Completion Time from 24 hours to 36 hours.

Technical Evaluation

Current TS 3.4.3, Condition A specifies the Required Actions if the requirements of the LCO are not met in Mode 1, 2, 3, or 4. Current Condition B specifies the actions required to be taken if the Required Actions and associated Completion Times of Condition A are not met. Current Required Action B.2 currently allows the unit to remain in Mode 4 with RCS pressure < 500 psig. This results in a lack of clarity by not explicitly providing actions when in MODE 4 with RCS pressure < 500 psig. Because Condition B is applicable in MODE 4, it should require the unit to exit MODE 4.

The change ensures a proper progression between Condition B and Condition C, which is applicable if the requirements of the LCO are not met any time in other than MODE 1, 2, 3, or 4. Currently, there is a gap in that Condition B, Required Action B.2, places the unit in Mode 4 with RCS pressure < 500 psig while Condition C would not be applied if the requirements of the LCO are not met while in Mode 4. In addition to the change to the Condition B end state, this change revises the Completion Time to be consistent with NUREG-1431 and with other Completion Times in the TS that are associated with placing the unit in Mode 5. This change in Completion Time is necessary to ensure a safe and orderly shutdown to Mode 5.

With this change, a specific Completion Time to place the unit in Mode 4 with RCS pressure < 500 psig is no longer specified. This is acceptable because the Actions result in transitioning through Mode 4 in order to comply with the requirement to place the unit in Mode 5 within 36 hours. The proposed Completion Time to reach Mode 5 provides assurance that the unit will continue to transition into Mode 4 with RCS pressure < 500 psig in a timely manner.

This change is designated as more restrictive because it results in placing the unit in a lower Mode of operation than currently required.

M06 Detailed Description

Not Used.

M07 Detailed Description

3.4.6-1 The current TS 3.4.6, "Pressurizer Safety Valves," Applicability Note is revised to include a requirement that "One pressurizer safety valve at a time may be inoperable for hot lift setting adjustment."

Technical Evaluation

The current TS 3.4.6 Applicability Note states "The lift settings are not required to be within the LCO limits during MODES 3 and 4 for the purpose of setting the pressurizer safety valves under ambient (hot) conditions." The Note allows entry into MODES 3 and 4 with the lift setpoints outside the LCO limits. This permits testing and examination of the safety valves at high pressure and temperature near their normal operating range, but only after the valves have had a preliminary cold setting. The cold setting gives assurance that the valves are OPERABLE near their design condition. However, the associated Bases go further, stating that "Only one valve at a time will be removed from service for testing." This prohibition, limiting how lift settings and testing are performed, is not stated in the Note. The proposed Note provides assurance that during Modes 3 and 4, at least one pressurizer safety valve that has had a preliminary cold setting is available to provide overpressure protection.

This change is designated as more restrictive because it explicitly limits the number of pressurizer safety valves that can be inoperable during hot lift setting activities.

M08 Detailed Description

3.4.8-1 Current TS 3.4.8, "Minimum RCS Flow," Condition A is revised to add a Note stating "Required Action A.2 shall be completed prior to starting any RCP whenever this Condition is entered."

Technical Evaluation

The current TS 3.4.8 LCO requires that at least one Reactor Coolant Pump (RCP) shall be in operation with a total flow through the core of at least 3,000 gpm. In the event no RCP is in operation, the Required Actions of current Condition A require all sources of unborated water to be isolated and current SR 3.1.1.1 to be performed. The Required Action to perform SR 3.1.1.1 assures that if the boron concentration in the Reactor Coolant System (RCS) has been reduced and not detected by the source range instrumentation, prompt action may be taken to restore the required Shutdown Margin.

However, once current Required Action A.1 is performed (all sources of unborated water are isolated within 1 hour) the LCO is no longer applicable because the current TS 3.4.8 Applicability is "MODES 3, 4, and 5, whenever the reactor trip breakers are open and with unborated water sources not isolated from the RCS." Therefore, current Required Action A.2 would not be required to be completed once all unborated water sources are isolated because the Applicability for the

LCO is exited. The proposed Note ensures that the Shutdown Margin is verified prior to starting any RCP once Condition A is entered, even if all unborated water sources are isolated.

This change is designated as more restrictive because it adds a Note to ensure that Required Action A.2 is completed prior to starting any RCP once Condition A is entered, even if all unborated water sources are isolated and the Applicability for the LCO is exited.

M09 Detailed Description

3.4.14-2 Current TS 3.4.14, "Low Temperature Overpressure Protection (LTOP) System," Condition C, is revised from "The RNS suction relief valve inoperable," to "Required LTOP method inoperable for reasons other than Condition A or B."

Technical Evaluation

The current TS 3.4.14 LCO requires accumulators to be isolated and either the Normal Residual Heat Removal System (RNS) suction relief valve with lift setting within the limit specified in the Pressure Temperature Limits Report (PTLR), or the RCS depressurized with an RCS vent of ≥ 4.15 square inches.

Current TS 3.4.14 provides Actions in the event an accumulator is not isolated when required (Condition A) and for an inoperable RNS suction relief valve (Condition C). However, no Condition currently addresses the Actions required to be taken in the event the required method of LTOP consisting of RCS depressurized and an RCS vent of ≥ 4.15 square inches is not Operable in compliance with current LCO 3.4.14.b.

With respect to current TS 3.4.14, the LCO is Applicable in Mode 4 when any cold leg temperature is ≤ 275°F; in Mode 5; and in Mode 6 when the reactor vessel head is on. If the required method of LTOP consists of the depressurized RCS with an RCS vent of ≥ 4.15 square inches, and the vent is found to be covered such that sufficient pressure protection does not exist, the current TS 3.4.14 Actions would result in entry into the requirements of LCO 3.0.3. LCO 3.0.3 requires, in part, that when an LCO is not met and an associated Action is not provided, that the unit shall be placed in a Mode or other specified condition in which the LCO is not applicable. Action shall be initiated within 1 hour to place the unit, as applicable, in: a) Mode 3 within 7 hours; and b) Mode 4 within 13 hours; and c) Mode 5 within 37 hours. Therefore, if in Mode 4 with cold leg temperature ≤ 275°F with an insufficient RCS vent, LCO 3.0.3 would require that action be initiated within 1 hour to place the unit in Mode 5 within 37 hours. LCO 3.0.3 would then require no further actions; the unit would still be in the Mode of applicability without sufficient LTOP. Entry into LCO 3.0.3 would result in no actions if the unit is in Mode 5 or Mode 6 when the reactor vessel head is on with an insufficient RCS vent.

The proposed change revises Condition C such that it applies to either the RNS suction relief valve or RCS depressurized with a vent path LTOP methods. In either case, the existing Required Actions and Completion Times specified in

Required Action C.1 and Required Action C.2 are reasonable and result in restoration of LTOP.

This change is designated as more restrictive because it results in requiring specific Actions where none are currently specified.

M10 Detailed Description

3.5.4-1
3.5.4-3
3.5.5-1

Current TS 3.5.4, “Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Operating,” and current TS 3.5.5, “Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Shutdown, Reactor Coolant System (RCS) Intact,” are revised to delete the LCO Note. New SR 3.5.4.4 is added stating, “Verify one Loop 1 RCP is in operation.” New SR 3.5.4.4 has a surveillance interval of 12 hours. A Note is added to the new SR which states, “Only required to be met when one or more Reactor Coolant Pumps (RCPs) are in operation.” Adding the new SR results in renumbering of some of the subsequent SRs.

Technical Evaluation

Current TS 3.5.4 requires that the Passive Residual Heat Removal Heat Exchanger (PRHR HX) shall be Operable. The LCO has a Note which states, “When any reactor coolant pumps (RCPs) are operating, at least one RCP must be operating in the loop with the PRHR HX, Loop 1.” The TS Bases state that the Note “requires a reactor coolant pump (RCP) to be operating in the loop with the PRHR HX, Loop 1, if any RCPs are operating. If RCPs are only operating in Loop 2 and no RCPs are operating in Loop 1, there is a possibility there may be reverse flow in the PRHR HX." This Note provides a constraint on operability of the PRHR HX since not having at least one RCP operating in Loop 1, if any RCPs are operating, could render the PRHR HX inoperable. An operational condition such as this should be surveilled to ensure that it is met. New SR 3.5.4.4, “Verify one Loop 1 RCP is in operation” is added with a surveillance frequency of every 12 hours to verify that the appropriate RCP is in operation when the PRHR HX is required to be Operable. The new SR is modified by a Note only requiring the SR when at least one RCP is in operation. Adding a new SR results in renumbering some of the subsequent SRs.

Current TS 3.5.5 has the same LCO Note that states, “When any reactor coolant pumps (RCPs) are operating, at least one RCP must be operating in the loop with the PRHR HX, Loop 1.” This Note is deleted as a result of this change. A corresponding SR is not added to TS 3.5.5 because SR 3.5.5.1 states that the SRs of TS 3.5.4 are applicable. Thus, the new SR added to TS 3.5.4 will also be applicable to TS 3.5.5.

This change is more restrictive since it adds a new SR to the TS.

M11 Detailed Description

Current TS 3.6.3, "Containment Isolation Valves," is revised as follows:

3.6.3-1
3.6.3-2
3.6.3-3
3.7.1-1
3.7.1-2
3.7.2-1
3.7.2-3
3.7.2-4
3.7.3-1
3.7.7-1
3.7.7-2
3.7.10-1
3.7.10-2

- LCO 3.6.3 is revised from "Each containment isolation valve shall be OPERABLE," to "Each containment isolation valve shall be OPERABLE, except for the containment isolation valves associated with closed systems."
- The Condition A and Condition B Notes, which state "Only applicable to penetration flow paths with two containment isolation valves," are deleted.
- Action C is deleted.
- Current Condition D is renumbered to Condition C and current Required Actions D.1 and D.2 are renumbered to Required Actions C.1 and C.2.

Current TS 3.7.1, "Main Steam Safety Valves (MSSVs)," is revised as follows:

- The Applicability is revised from "MODES 1, 2, and 3" and "MODE 4 with the Reactor Coolant System (RCS) not being cooled by the Normal Residual Heat Removal System (RNS)" to "MODES 1, 2, 3, and 4."
- New Applicability Note is added, stating "The MSSVs are not required to be OPERABLE for opening in MODE 4 when the Reactor Coolant System (RCS) is being cooled by the Normal Residual Heat removal System (RNS)."
- Current Condition A is revised from "...MSSVs inoperable" to "...MSSVs inoperable for opening."
- New Action B is added.
- Current Condition B and associated Required Actions are renumbered as Action C.
- Current Condition B, first Condition is revised from "Required Action and associated Completion Time not met" to "Required Action and associated Completion Time of Condition A not met."
- Current Condition B, second Condition is revised from "...MSSVs inoperable" to "...MSSVs inoperable for opening."
- New Action D is added.

Current TS 3.7.2, “Main Steam Isolation Valves (MSIVs)," is revised as follows:

- LCO 3.7.2 is revised to include the MSIV bypass valves and main steam line drain valves as part of the LCO requirements, specifically: "b. MSIV bypass valves;" and "c. Main steam line drain valves."
- The Applicability as it pertains to MSIVs only is revised from "MODE 1," and "MODES 2, 3, and 4 except when steam flow is isolated," to "MODES 1, 2, 3, and 4."
- New Condition E is added, with Condition E stating "One or more MSIV bypass or main steam line drain valves inoperable." Required Actions E.1 and E.2 and associated Completion Times are moved from TS 3.6.3 current Required Actions C.1 and C.2.
- Current Condition E and associated Required Actions are renumbered as Action F and revised to include reference to new Condition E.
- New Required Action F.3 as it pertains to MSIVs only is added, stating to "Be in MODE 5" in 36 hours.
- New SR 3.7.2.3 is added.
- New SR 3.7.2.4 is added.

Current TS 3.7.3, "Main Feedwater Isolation and Control Valves (MFIVs and MFCVs)," is revised as it pertains to MFIVs only as follows:

- The Applicability is revised from "MODES 1, 2, 3, and 4 except when the MFIVs or associated MFCV are closed and deactivated," to "MODES 1, 2, 3, and 4.
- Current Required Action D.3.1, which allows the affected flow path to be isolated in lieu of being in MODE 5, is deleted.

Current TS 3.7.7, "Startup Feedwater Isolation and Control Valves," is revised as it pertains to startup feedwater isolation valves only as follows:

- The Applicability is revised from "MODES 1, 2, 3, and 4 except when the startup feedwater flow paths are isolated," to "MODES 1, 2, 3, and 4."
- Required Action C.3 is revised from "Isolate the affected flow path(s)," to "Be in MODE 5."
- New SR 3.7.7.2 is added.

Current TS 3.7.10, "Steam Generator (SG) Isolation Valves," is revised as follows:

- Current Applicability of “MODES 1, 2, and 3, Mode 4 with the Reactor Coolant System (RCS) not being cooled by the Normal Residual Heat Removal System (RNS)” is revised to “MODES 1, 2, 3, and 4.” The Applicability is further revised to add a new Note stating: “PORV OPERABILITY is not required in MODE 4 with Reactor Coolant System (RCS) being cooled by the Normal Residual Heat Removal System (RNS).”
- Required Action A.2 is added to Action A stating: “Verify the affected flow path is isolated” with a Completion Time of “Once per 31 days.” This Required Action is also modified by two Notes: 1. Isolation devices in high radiation areas may be verified by use of administrative means, and 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by administrative means.
- New Required Action E.3 is added stating: “Be in MODE 5” in 36 hours. New Required Action E.3 also is provided with a Note stating: “Not applicable for inoperable PORV(s).”
- New SR 3.7.10.2 and SR 3.7.10.3 are added.

Technical Evaluation

Current TS 3.6.3 provides the requirement for the containment isolation valve function. Some of the valves that are containment isolation valves are also required to be Operable to meet other safety related functions, and these requirements are provided in separate LCOs. Thus, for certain containment isolation valves on closed systems, the same valve has two separate TS that cover its requirements. Current TS 3.7.1 provides requirements for MSSVs, current TS 3.7.2 provides requirements for the MSIVs, current TS 3.7.3 provides requirements for the MFIVs, current TS 3.7.7 provides requirements for the startup feedwater isolation valves, and current TS 3.7.10 provides requirements for the power operated relief valve (PORV) block valves and SG blowdown isolation valves.

In lieu of including these valves in both TS 3.6.3 and their individual Specification, TS 3.6.3 is revised to exclude all closed system containment isolation valves. The remaining closed system containment isolation valves that are not covered by TS 3.7.1, TS 3.7.2, TS 3.7.3, TS 3.7.7, and TS 3.7.10, are MSIV bypass valves and the main steam line drain valves. The requirements for these containment isolation valves are added to revised TS 3.7.2 with the other steam line flow path isolation valves. All of the moved containment isolation valves are associated with a closed system and they are the only closed system containment isolation valves. The individual Specifications where these valves are moved to include the same or more restrictive requirements as currently in TS 3.6.3, or have been revised to include the requirements from current TS 3.6.3. Therefore, deleting TS 3.6.3 Action C, and related Condition A and Condition B Notes, is consistent with excluding closed-system containment isolation valves from TS 3.6.3. The changes to TS 3.7.1, TS 3.7.2, TS 3.7.3, TS 3.7.7, and TS 3.7.10 moving these closed system containment isolation valves are either consistent with or more restrictive than those in current TS 3.6.3.

Below is a comparison of each individual TS to current TS 3.6.3, with respect to deleting the closed system containment isolation valve requirements from TS 3.6.3 an including them only in the individual TS. The impact of changes in TS 3.7.1, TS 3.7.2, TS 3.7.3, TS 3.7.7, and TS 3.7.10 to other valves already addressed by these TS is discussed in other DOCs.

<u>TS 3.7.1 comparison and evaluation</u>

- The current TS 3.7.1 includes the MSSV opening function, but not the containment isolation function. The revised TS 3.7.1 includes all the requirements for the MSSVs, both the opening and the closing requirements.

- The Applicability of current TS 3.7.1, which is MODES 1, 2, and 3, and MODE 4 with the Reactor Coolant System (RCS) not being cooled by the Normal Residual Heat Removal System (RNS), is revised to be consistent with the Applicability of TS 3.6.3, which is MODES 1, 2, 3, and 4. TS 3.7.1 Applicability is revised by a Note, which states that the MSSVs are not required to be OPERABLE for opening in MODE 4 when the RCS is being cooled by the RNS. This maintains the Applicability for the opening function of the MSSVs unchanged from the current TS 3.7.1 requirements. Therefore, the Applicability change reflects no technical change for either the moved containment isolation function or the current MSSV relief function.

- New Action B provides a Condition when the one or both MSSVs are inoperable for closing. Proposed Required Action B.1 requires restoration of the inoperable MSSV within 72 hours. For the same issue (MSSV inoperable for closing) current TS 3.6.3 Condition C would apply, since the MSSVs are closed system valves with only one valve in the penetration flow path. Current TS 3.6.3 Required Action C.1 requires the affected penetration flow path to be isolated by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange within 72

hours. Current TS 3.6.3 Required Action C.2 then requires a periodic verification that the penetration remains isolated. However, the MSSVs do not include any other valve in the flow path that can be used to isolate the penetration. Thus, the only option when an MSSV will not close is to restore the MSSV to OPERABLE status within the same 72 hour period. This option is always an option in the TS (and TS 3.6.3 Action C), whether explicitly stated or not. Proposed TS 3.7.1 Required Action B.1 is therefore functionally equivalent to current TS 3.6.3 Required Action C.1. As such, this change to include a restoration Required Action in lieu of a Required Action to isolate the affected penetration reflects no technical change for this moved MSSV containment isolation function. If an inoperable for closing MSSV is not restored to Operable status with 72 hours, new TS 3.7.1 ACTION D would apply. Proposed TS 3.7.1 Required Action D.1 requires the unit to be placed in MODE 3 within 6 hours and proposed Required Action D.2 requires the unit to be placed in MODE 5 within 36 hours. These proposed Required Actions are the same as those in current TS 3.6.3 Action D. In addition, since the affected penetration flow path cannot be isolated, current TS 3.6.3 Note 1 cannot be applied, thus it is not being added to proposed TS 3.7.1. Current TS 3.7.1 Actions Note allows separate Condition entry for each MSSV. This Note is consistent with current TS 3.6.3 Actions Note 2, which allows separate Condition entry for each penetration flow path. Each MSSV is in a separate penetration flow path, thus each separate Condition entry into current TS 3.6.3 Condition C is allowed. Current TS 3.7.1 Actions Note would continue to allow this for entry into proposed TS 3.7.1 Condition B. In addition, current TS 3.6.3 Actions Notes 3 and 4 do not apply to the MSSVs. These Notes ensure appropriate Actions are entered for any impacted supported system and TS 3.6.1, “Containment,” Actions are entered when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria. Since MSSVs do not support any other TS required system and these valves have no associated containment leakage rate limit, TS 3.6.3 Actions Notes 3 and 4 have no bearing on these valves. Due to the new proposed TS 3.7.1 Actions, current TS 3.7.1 Conditions A and B have been modified to reflect that they apply only to the opening requirements for the MSSVs.

- None of the SRs in current TS 3.6.3 apply to the MSSVs. The TS do not provide any Surveillance Requirements to verify the position of relief valves or check valves in TS 3.6.3. Therefore, no Surveillances have been moved to TS 3.7.1.

Since the proposed LCO requirement, Actions, and SRs, as they relate to the containment isolation function of the MSSVs, are consistent with those in TS 3.6.3, the above changes to TS 3.7.1 are acceptable.

<u>TS 3.7.2 comparison and evaluation</u>

- The current TS 3.7.2 LCO includes the MSIVs, but not the MSIV bypass valves or main steam line drain valves. The new revised LCO 3.7.2 clearly

describes the required valves, and includes the MSIV bypass valves and main steam line drain valves, which are moved from current TS 3.6.3. Therefore, the LCO changes to TS 3.6.3 and TS 3.7.2 reflect no technical change for these moved valves.

- The Applicability of current TS 3.7.2, which is Mode 1, and Modes 2, 3, and 4, except when steam flow is isolated is revised to be consistent with the Applicability of TS 3.6.3, which is Modes 1, 2, 3, 4. Thus, the proposed Applicability is consistent with the current TS 3.6.3 Applicability for the MSIVs, MSIV bypass valves, and main steam line drain valves, which are moved from current TS 3.6.3. Therefore, the Applicability change reflects no technical change for these moved valves. The impact of this Applicability change to the other valves addressed in current TS 3.7.2 is discussed in DOC M15.
- For MSIV bypass valves or main steam line drain valves inoperability, new Required Actions in TS 3.7.2 new Action E are identical to those currently required in TS 3.6.3 Action C. Since current TS 3.6.3 Action C is the Action applicable to the MSIV bypass valves and main steam line drain valves, this Action change reflects no technical change for these moved valves. Additionally, TS 3.7.2 new Action E Required Actions include a Note stating "Penetration flow path(s) may be unisolated intermittently under administrative controls" and new Condition E includes a Note stating "Separate Condition entry is allowed for each penetration flow path." These Notes are copied over from current TS 3.6.3 Actions Notes 1 and 2, respectively, and therefore reflect no technical change. TS 3.6.3 Actions Notes 3 and 4 do not apply to MSIV bypass valves and main steam line drain valves. These Notes ensure appropriate Actions are entered for any impacted supported system and TS 3.6.1, "Containment," Actions are entered when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria. Since MSIV bypass valves and main steam line drain valves do not support any other TS required system and these valves have no associated containment leakage rate limit, TS 3.6.3 Actions Notes 3 and 4 have no bearing on these valves. The evaluation concludes there is no impact on safety from moving the Action requirement for MSIV bypass valves and main steam line drain valves out of TS 3.6.3. Actions for MSIVs that are currently addressed in TS 3.7.2 Actions A, C, and D, are compared to current TS 3.6.3 Actions – Specifically TS 3.6.3 current Action C. The more restrictive isolation time for MSIVs is in TS 3.7.2, which may be as long as 22 hours based on the combination of:
    - 8 hour allowance of Required Action A.1 to restore;
    - 6 hours to be in Mode 2 if restoration not met per Required Action C.1; and
    - 8 hours to isolate from when in Mode 2, 3, or 4 per Required Action D.1.

  In contrast, TS 3.6.3 current Required Action C.1 allows 72 hours to isolate and does not impose the explicit requirement to be in Mode 2 (in up to 14

hours). However, TS 3.7.2 Required Actions do not include the restrictions of TS 3.6.3 current Required Action C.1 that require deactivating the MSIV in the closed position. Conversely, TS 3.6.3 current Required Action C.2 periodic verification of "Once per 31 days" is less restrictive than the periodic verification of TS 3.7.2 Required Action D.2 of "Once per 7 days." The TS 3.7.2 more frequent verification adequately compensates for not imposing a requirement to deactivate the MSIV in the closed position. Additionally, TS 3.7.2 Action D does not contain the flexibility found in TS 3.6.3 current Required Action C.2 Notes allowing administrative means to verify flow path isolation. The flexibility of TS 3.6.3 Actions Note 1 ("Penetration flow path(s) may be unisolated intermittently under administrative controls") is not applied for MSIVs in TS 3.7.2 Actions and the flexibility of TS 3.6.3 Actions Note 2 ("Separate Condition entry is allowed for each penetration flow path") is only allowed in TS 3.7.2 for Modes 2, 3, and 4; therefore TS 3.7.2 imposes more restrictive Actions. TS 3.6.3 Actions Notes 3 and 4 do not apply to MSIVs. These Notes ensure appropriate Actions are entered for any impacted supported system and TS 3.6.1, "Containment," Actions are entered when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria. Since MSIVs do not support any other TS required system and these valves have no associated containment leakage rate limit, TS 3.6.3 Actions Notes 3 and 4 have no bearing on these valves.

The evaluation concludes that the overall impact on safety from moving the Action requirement for MSIVs out of TS 3.6.3 is minimal. The more restrictive Actions of TS 3.7.2 to affect isolation result in achieving the appropriate compensatory measure and protection of public health and safety sooner and the more frequent verification adequately compensates for not requiring deenergization of the MSIVs.

In the event that the flow path associated with MSIVs, MSIV bypass valves, or main steam line drain valves is not isolated, the default actions of TS 3.6.3 current Action D require being in Mode 3 within 6 hours and being in Mode 5 within 36 hours. To assure these requirements are maintained, a new TS 3.7.2 Required Action F.3 is added requiring being in Mode 5 within 36 hours, which is consistent with TS 3.6.3 current Required Action D.2. This addition, in combination with current TS 3.7.2 Required Action E.1 (renumbered F.1) to be in Mode 3 within 6 hours provides consistent actions for the valves moved from TS 3.6.3 into TS 3.7.2. The impact of this new Required Action to the other valves addressed in current TS 3.7.2 is discussed in DOC M15.

- Two new SRs are added: SR 3.7.2.3 and SR 3.7.2.4. SR 3.7.2.3 requires verification that the isolation time of each MSIV bypass valve and main steam line drain valve is within limits at a Frequency of in accordance with the Inservice Testing Program and SR 3.7.2.4 requires verification that each MSIV bypass valve and main steam line drain valve actuates to the isolation position on an actual or simulated actuation signal at a Frequency of 24 months. These SRs are consistent with SR 3.6.3.4 and SR 3.6.3.5. TS 3.6.3 SRs 3.6.3.1, 3.6.3.2, and 3.6.3.3 are not applicable to MSIVs,

MSIV bypass valves, or main steam line drain valves.

Therefore, since the proposed LCO requirement, Actions, and SRs, as they relate to the MSIVs, MSIV bypass valves, and main steam line drain valves, are either consistent with or more restrictive than those in TS 3.6.3, the above changes to TS 3.7.2 are acceptable.

TS 3.7.3 comparison and evaluation

- For the MFIVs, the Applicability of current TS 3.7.3, which is Modes 1, 2, 3, and 4 except when the MFIVs or associated MFCV are closed and deactivated is revised to delete the exception of when the MFIVs are closed and deactivated to be consistent with the Applicability of TS 3.6.3, which is Modes 1, 2, 3, 4. Thus, the proposed Applicability is consistent with the current TS 3.6.3 Applicability for the MFIVs. The impact of this Applicability change to the MFCVs is discussed in DOC M15.
- For the MFIVs, current TS 3.7.3, Required Action D.3.1, which allows the affected flow path to be isolated in lieu of being in MODE 5, is deleted. TS 3.7.3 will now require Mode 5 to be ultimately entered when the flow path is not isolated as required by Actions A and B. Under similar conditions (i.e., flow path not isolated as required by current TS 3.6.3 Action C), current TS 3.6.3 Condition D.2 requires Mode 5 to be entered. The impact of this change to the MFCVs is discussed in DOC A097.
- For the MFIVs, the Actions of current TS 3.7.3 are consistent with or more restrictive than the requirements of current TS 3.6.3. Current TS 3.7.3 Required Actions do not include the restrictions of TS 3.6.3 current Required Action C.1 that require deactivating the MFIV in the closed position if the MFIV were used to meet the action to isolate. Conversely, TS 3.6.3 current Required Action C.2 periodic verification of "Once per 31 days" is less restrictive than the periodic verification of current TS 3.7.3 Required Action A.2 of "Once per 7 days." The current TS 3.7.3 more frequent verification adequately compensates for not imposing a requirement to deactivate the MFIV in the closed position. Additionally, current TS 3.7.3 Actions do not contain the flexibility found in TS 3.6.3 current Required Action C.2 Notes allowing administrative means to verify flow path isolation. The flexibility of TS 3.6.3 Actions Note 1 (“Penetration flow path(s) may be unisolated intermittently under administrative controls”) is not applied for MFIVs in current TS 3.7.3 Actions and the flexibility of current TS 3.6.3 Actions Note 2 (“Separate Condition entry is allowed for each penetration flow path”) is not allowed in current TS 3.7.3; therefore current TS 3.7.3 imposes more restrictive Actions. Current TS 3.6.3 Actions Notes 3 and 4 do not apply to MFIVs. These Notes ensure appropriate Actions are entered for any impacted supported system and TS 3.6.1, “Containment,” Actions are entered when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria. Since MFIVs do not support any other TS required system and these valves have no associated containment leakage rate limit, TS 3.6.3 Actions Notes 3 and 4 have no bearing on these valves.

  The evaluation concludes that the overall impact on safety from moving the

Action requirement for MFIVs out of current TS 3.6.3 is minimal. The more restrictive Actions of current TS 3.7.3 to affect isolation result in achieving the appropriate compensatory measure and protection of public health and safety sooner and the more frequent verification adequately compensates for not requiring deenergization of the MFIVs.

In the event that the flow path associated with MFIVs is not isolated, the default actions of current TS 3.6.3 current Action D require being in Mode 3 within 6 hours and being in Mode 5 within 36 hours, which is consistent with TS 3.7.3 current Required Actions D.1 and D.3.2. TS 3.7.3 current Required Action D.2 imposes a more restrictive requirement to be in Mode 4 with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS). These actions provide consistent or more restrictive actions for the MFIVs as moved from current TS 3.6.3 into TS 3.7.3.

Current SR 3.7.3.1 reflects testing consistent with current SR 3.6.3.4 and SR 3.6.3.5 for verifying valve stroke times and actuation on an actual or simulated actuation signal. However, the Frequency of current SR 3.7.3.1 ("In accordance with the Inservice Testing Program") is more restrictive than the "24 month" Frequency of current SRs 3.6.3.4 and 3.6.3.5. Current TS 3.6.3 SRs 3.6.3.1, 3.6.3.2, and 3.6.3.3 are not applicable to MFIVs.

Therefore, since the proposed LCO requirement, Actions, and SRs, as they relate to the MFIVs, are either consistent with or more restrictive than those in TS 3.6.3, the above changes to TS 3.7.3 are acceptable.

<u>TS 3.7.7 comparison and evaluation</u>

- For the startup feedwater isolation valves the Applicability of current TS 3.7.7, which is Modes 1, 2, 3, and 4 except when the startup feedwater flow paths are isolated is revised to delete the exception of when the startup feedwater flow paths are isolated to be consistent with the Applicability of current TS 3.6.3, which is Modes 1, 2, 3, and 4. Thus, the proposed Applicability is consistent with the current TS 3.6.3 Applicability for the startup feedwater control valves. The impact of this Applicability change to the startup feedwater control valves is discussed in DOC M15.
- For the startup feedwater isolation valves current TS 3.7.7 Required Actions do not include the restrictions of TS 3.6.3 current Required Action C.1 that require deactivating the startup feedwater isolation valves in the closed position if it were used to meet the action to isolate. Conversely, TS 3.6.3 current Required Action C.2 periodic verification of "Once per 31 days" is less restrictive than the periodic verification of TS 3.7.7 Required Action A.2 of "Once per 7 days." The current TS 3.7.7 more frequent verification adequately compensates for not imposing a requirement to deactivate the startup feedwater isolation valves in the closed position. Additionally, current TS 3.7.7 Actions do not contain the flexibility found in TS 3.6.3 current Required Action C.2 Notes allowing administrative means to verify flow path isolation. The flexibility of current TS 3.6.3 Actions Note 1 ("Penetration flow path(s) may be unisolated intermittently under administrative controls") and Actions Note 2 ("Separate

Condition entry is allowed for each penetration flow path") are consistent with current TS 3.7.7 Actions Notes 1 and 2; therefore current TS 3.7.7 imposes consistent or more restrictive Actions. Current TS 3.6.3 Actions Notes 3 and 4 do not apply to startup feedwater isolation valves. These Notes ensure appropriate Actions are entered for any impacted supported system and TS 3.6.1, "Containment," Actions are entered when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria. Since startup feedwater isolation valves do not support any other TS required system and these valves have no associated containment leakage rate limit, TS 3.6.3 Actions Notes 3 and 4 have no bearing on these valves.

The evaluation concludes that the overall impact on safety from moving the Action requirement for startup feedwater isolation valves out of current TS 3.6.3 is minimal. The more restrictive Actions of current TS 3.7.7 to affect isolation result in achieving the appropriate compensatory measure and protection of public health and safety sooner and the more frequent verification adequately compensates for not requiring deenergization of the startup feedwater isolation valves.

In the event that the flow path associated with startup feedwater isolation valves is not isolated, the default actions of TS 3.6.3 current Action D require being in Mode 3 within 6 hours and being in Mode 5 within 36 hours, which is consistent with current TS 3.7.7 Required Actions C.1 and new Required Action C.3. TS 3.7.7 current Required Action C.2 imposes a more restrictive requirement to be in Mode 4 with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS). These actions provide consistent or more restrictive actions for the startup feedwater isolation valves as moved from current TS 3.6.3 into TS 3.7.7. TS 3.7.7 new Required Action C.3 requires Mode 5 to be ultimately entered when the flow path is not isolated as required by Actions A and B. Under similar conditions (i.e., flow path not isolated as required by current TS 3.6.3 Action C), current TS 3.6.3 Condition D.2 requires Mode 5 to be entered. The impact of this change to the startup feedwater control valves is discussed in DOC M15.

- For the startup feedwater isolation valves new SR 3.7.7.2 is added, which requires verification that each startup feedwater isolation valve actuates to the isolation position on an actual or simulated actuation signal at a Frequency of 24 months. This SR is consistent with current SR 3.6.3.5. Current TS 3.6.3 SRs 3.6.3.1, 3.6.3.2, and 3.6.3.3 are not applicable to startup feedwater isolation valves. The SR 3.6.3.4 surveillance to verify isolation time in accordance with the Inservice Testing Program is equivalent to the current SR 3.7.7.1 to verify operability in accordance with the Inservice Testing Program.

Therefore, since the proposed LCO requirement, Actions, and SRs, as they relate to the startup feedwater isolation valves, are either consistent with or more restrictive than those in TS 3.6.3, the changes to TS 3.7.7 are acceptable.

TS 3.7.10 comparison and evaluation

- For the PORV block valves and SG blowdown isolation valves the revised TS 3.7.10 Applicability is consistent with the current TS 3.6.3 Applicability for the PORV block valves and SG blowdown isolation valves. The new Applicability Note limits the PORV Applicability to Mode 4 with RCS not being cooled by RNS, which results in no change to the PORV Applicability.

- Current TS 3.7.10, Required Action A.1 is more restrictive than the corresponding current TS 3.6.3 Required Action C.1 in that the current TS 3.7.10 action does not provide for the flow path to be isolated by a closed manual valve or blind flange. TS 3.7.10 new Required Action A.2 (and associated Notes) is added, which requires verifying the affected SG PORV flow path to be isolated once per 31 days. This Required Action (and associated Notes) is consistent with that currently required in TS 3.6.3 Required Action C.2 for the PORV block valves and SG blowdown isolation valves, and is a more restrictive action for the PORV.

  Additionally, current TS 3.6.3 Actions Note 1 ("Penetration flow path(s) may be unisolated intermittently under administrative controls") and Actions Note 2 ("Separate Condition entry is allowed for each penetration flow path") are consistent with current TS 3.7.10 Actions Notes 1 and 2; therefore current TS 3.7.10 imposes consistent or more restrictive Actions. Current TS 3.6.3 Actions Notes 3 and 4 do not apply to the PORV block valves and SG blowdown isolation valves. These Notes ensure appropriate Actions are entered for any impacted supported system and TS 3.6.1, "Containment," Actions are entered when isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria. Since PORV block valves and SG blowdown isolation valves do not support any other TS required system and these valves have no associated containment leakage rate limit, TS 3.6.3 Actions Notes 3 and 4 have no bearing on these valves.

  The evaluation concludes that the overall impact on safety from moving the Action requirement for the PORV block valves and SG blowdown isolation valves out of current TS 3.6.3 is minimal. The Actions of TS 3.7.10 for isolation and verification are consistent with or more restrictive than the Actions in current TS 3.6.3.

  In the event that the flow path associated with the PORV block valves or SG blowdown isolation valves is not isolated, the default actions of TS 3.6.3 current Action D require being in Mode 3 within 6 hours and being in Mode 5 within 36 hours. To assure these requirements are maintained, a new TS 3.7.10 Required Action E.3 is added requiring being in Mode 5 within 36 hours, which is consistent with TS 3.6.3 current Required Action D.2. The Note associated with new TS 3.7.10 Required Action E.3 excluding application to inoperable PORVs is consistent with current TS 3.7.10 actions. These actions provide consistent or more restrictive actions for the PORV block valves and SG blowdown isolation valves as moved from current TS 3.6.3 into TS 3.7.10.

- For the PORV block valves and SG blowdown isolation valves two SRs are added, SR 3.7.10.2 and SR 3.7.10.3. New SR 3.7.10.2 requires verification that the isolation time of each SG PORV block valve and SG blowdown isolation valve is within limits at a Frequency of in accordance with the Inservice Testing Program and new SR 3.7.10.3 requires verification that each SG PORV block valve and SG blowdown isolation valve actuates on an actual or simulated actuation signal at a Frequency of 24 months. These SRs are consistent with current SR 3.6.3.4 and current SR 3.6.3.5. Current TS 3.6.3 SRs 3.6.3.1, 3.6.3.2, and 3.6.3.3 are not applicable to the PORV block valves and SG blowdown isolation valves.

Therefore, since the proposed LCO requirement, Actions, and SRs, as they relate to the SG PORV block valves and SG blowdown isolation valves, are either consistent with or more restrictive than those in TS 3.6.3, the changes to TS 3.7.10 are acceptable.

Based on the above changes to the individual Specifications, the revision to LCO 3.6.3 to exclude the containment isolation valves associated with closed systems, including the deletion of Action C and the Notes to Conditions A and B, is acceptable since all the containment isolation valves associated with closed systems are covered by TS 3.7.1, TS 3.7.2, TS 3.7.3, TS 3.7.7, and TS 3.7.10, with the associated LCO, Applicability, Actions, and SRs either consistent with or more restrictive than those in current TS 3.6.3.

M12 Detailed Description

3.6.5-1 Current TS 3.6.5, "Containment Air Temperature," SR 3.6.5.1 Frequency is changed from 24 hours to 12 hours.

Technical Evaluation

Current SR 3.6.5.1 verifies average containment air temperature is within limit. This changes the Frequency for performing this verification from 24 hours to 12 hours. The proposed Frequency is consistent with the containment pressure surveillance, current SR 3.6.4.1, and with current SR 3.6.10.1, which requires verification of containment inside and outside differential temperature to be within the specified limit. The impact of this change is insignificant since the containment air temperature is also required at this increased Frequency in accordance with current SR 3.6.10.1. This change is more restrictive since the Surveillance is proposed to be performed more frequently.

M13 Detailed Description

3.6.6-1
3.6.6-2
3.6.7-1
3.6.7-2
3.6.8-1

Current TS 3.6.6, "Passive Containment Cooling System (PCS) - Operating," provides the requirements for the PCS in Modes 1, 2, 3, and 4. Current TS 3.6.7, "Passive Containment Cooling System (PCS) - Shutdown," provides the requirements for the PCS in Modes 5 and 6 with the calculated reactor decay heat > 6.0 MWt. These two TS have been combined into a single new TS 3.6.6,

3.6.8-2
3.6.8-3
3.6.9-1
3.6.10-1
3.6.10-2
3.7.9-1

Passive Containment Cooling System (PCS)."

Specifically, current TS 3.6.7 is deleted and current TS 3.6.6 is revised as follows:

- The Applicability for TS 3.6.6 is revised to include a new Applicability of "MODES 5 and 6 with the reactor decay heat > 6.0 MWt."
- TS 3.6.6 Condition D, first Condition, is revised to include the phrases "of Condition A, B, or C," and "in MODE 1, 2, 3, or 4."
- TS 3.6.6 Condition D, second Condition, is revised to include the phrase "in MODE 1, 2, 3, or 4."
- TS 3.6.6 Actions E and F are added.

In addition, Current TS 3.6.8, "Containment Penetrations," Current TS 3.6.9, "pH Adjustment," and Current TS 3.6.10, "Vacuum Relief Valves," are renumbered as TS 3.6.7, TS 3.6.8, and TS 3.6.9, respectively.

Technical Evaluation

Current TS 3.6.6 and current TS 3.6.7 have the identical LCO statements. Thus, the two Specifications are combined into a single Specification. The Applicabilities of the two current Specifications are combined, such that both current TS 3.6.6 and current TS 3.6.7 Applicabilities are included in proposed TS 3.6.6 Applicability. Note that the elimination of the term "calculated" in the Modes 5 and 6 Applicability in current TS 3.6.7, thus not including it in new TS 3.6.6, is discussed in DOC L14 Therefore, this portion of the change (LCO and Applicability) is administrative since neither the LCO statement nor the Applicability is being changed by combining the two Specifications.

Due to this combining of Specifications, the following changes clarify the various actions consistent with the current requirements. These changes are necessitated by the combining of TS 3.6.6 and TS 3.6.7 and the phrasing is consistent with TSTF-GG-05-01 and are administrative changes that do not result in any technical change:

- Proposed TS 3.6.6 Condition D, first Condition, includes the words "of Condition A, B, or C," and "in MODE 1, 2, 3, and 4."
- Proposed TS 3.6.6 Condition D, second Condition, includes the words "in MODE 1, 2, 3, and 4."
- Splitting up of the current TS 3.6.7 Action D into two separate Actions, proposed TS 3.6.6 Actions E and F.
- The proposed TS 3.6.6 Conditions E and F specify the Mode in which each is applicable, so the Mode specific words from current TS 3.6.7 Required Actions D.1.1 and D.1.2 are deleted.
- The two requirements (Reactor Coolant System boundary intact and pressurizer level $\geq$ 20%) in current TS 3.6.7 Required Action D.1.1 have been reordered for clarity in proposed TS 3.6.6 Required Action E.1, with the pressurizer level requirement appearing first.

- Deleting current SR 3.6.7.1 since it is only a cross reference to perform the SRs of current TS 3.6.6.

Current TS 3.6.7 Actions A, B, and C are identical to current TS 3.6.6 Actions A, B, and C. However, the effect of this change is more restrictive because current TS 3.6.7 Actions A, B, or C could have been entered as a result of a required unit shutdown by current TS 3.6.6 and the Action Completion Times would have begun anew for the same inoperabilities. Thus, combining the two Specifications into a single Specification results in the potential for not allowing the additional restoration times of current TS 3.6.7 Actions A, B, and C, after the unit is shut down to Mode 5 in accordance with current TS 3.6.6 Action D. This potential reduction in restoration time is acceptable, since the PCS has already been inoperable for at least 72 hours prior to entering Mode 5.

Due to the change described above (combining current TS 3.6.6 and TS 3.6.7 into a single TS), current TS 3.6.8, current TS 3.6.9, and current TS 3.6.10 are renumbered as TS 3.6.7, TS 3.6.8, and TS 3.6.9, respectively.

This change is more restrictive due to eliminating the separate restoration times when in Mode 5 or 6.

M14 Detailed Description

Current TS 3.6.6, "Passive Containment Cooling System (PCS) – Operating,"
3.6.6-2 SR 3.6.6.1 requires verification that the water storage tank temperature is ≥ 40°F and ≤ 120°F at a Frequency of every 7 days and every 24 hours when the water storage tank temperature is verified ≤ 50°F or ≥ 100°F. The Frequency for this SR is changed to be 24 hours.

Current TS 3.6.6, SR 3.6.6.3 requires verification that each passive containment cooling system power operated and automatic valve in each flow path that is not locked, sealed, or otherwise secured in position, is in the correct position. The SR is changed to also include manual valves in this verification.

Technical Evaluation

Current SR 3.6.6.1 verifies the water storage tank temperature is within the limits assumed in the safety analysis. This is required to be verified every 7 days, and every 24 hours after the tank temperature is determined to be ≤ 50°F or ≥ 100°F. In lieu of having two Frequencies, one which starts when the temperature nears the acceptance criteria, a single Frequency is proposed. SR 3.6.6.1 includes only a 24 hour Frequency. Even without this change, to assure compliance that the 24 hour monitoring is not required, temperature would have to be verified each 24 hour period. As such, the presentation of only a 24-hr Frequency eliminates unnecessary tracking complexity. Therefore, this change is acceptable, since it requires plant personnel to more frequently document performance of the SR.

Current SR 3.6.6.3 ensures that the proper flow paths exist for passive containment cooling system operation. However, the verification does not currently require the manual valves in the flow path to be verified. It only requires

the power operated and automatic valves that are not locked sealed or otherwise secured in position to be verified. Proposed SR 3.6.6.3 will require the manual valves to be verified if they are not locked sealed or otherwise secured in position. This ensures that any valve that could possibly be in the incorrect position to be periodically checked. This change is acceptable since it requires additional valves that could impact the flow paths to be periodically verified in their correct position, and is consistent with similar Surveillances for system valve lineup verifications.

M15 Detailed Description

3.7.2-1
3.7.2-3
3.7.3-1
3.7.7-1

Current TS 3.7.2, "Main Steam Isolation Valves (MSIVs)," as it relates to the non-containment isolation valves; turbine stop valves, turbine control valves, turbine bypass valves and moisture separator reheater 2nd stage steam isolation valves, is revised as follows:

- The current Applicability is Mode 1, and Modes 2, 3, and 4 except when steam flow is isolated. The Applicability is changed to be Modes 1, 2, 3, and 4, with no exceptions.
- Current TS 3.7.2 new Required Action F.3 is added to be in MODE 5 within 36 hours.

Current TS 3.7.3, "Main Feedwater Isolation and Control Valves (MFIVs and MFCVs)," as it relates to the MFCVs is revised as follows:

- The current Applicability is Modes 1, 2, 3, and 4 except when the MFIVs or associated MFCVs are closed and deactivated. The Applicability is changed to be Modes 1, 2, 3, and 4, with no exceptions.

Current TS 3.7.7, "Startup Feedwater Isolation and Control Valves," as it relates to the startup feedwater control valves, is revised as follows:

- The current Applicability of TS 3.7.7 is Modes 1, 2, 3, and 4 except when the startup feedwater flow paths are isolated. The Applicability is changed to be Modes 1, 2, 3, and 4, with no exceptions.
- Current TS 3.7.7, "Startup Feedwater Isolation and Control Valves," new Required Action C.3 is added stating: “Be in MODE 5” in 36 hours.

Technical Evaluation

<u>TS 3.7.2 evaluation</u>

When the unit is in Mode 2, 3, or 4, LCO 3.7.2 currently does not apply to the valves whose flow path is isolated. Thus, when a main steam flow path isolation valve (e.g., a turbine stop valve) is inoperable in Mode 2, 3, or 4, once the affected steam flow path is isolated as required by Required Action D.1, LCO 3.7.2 would not apply and the periodic verification of Required Action D.2 would not be required.

Similar to the Applicability of current TS 3.6.3, the current TS 3.7.2 Applicability is changed to not provide an exception once the affected flow path is isolated. The

main steam flow path isolation valves will remain required to be Operable in Modes 2, 3, and 4, even when the affected flow path is isolated. This change will ensure that the periodic verification of Required Action D.2 is performed as long as a valve in the affected flow path remains inoperable. This change is acceptable since it ensures the flow path is periodically verified to be in the post accident state (i.e., isolated) anytime when in Mode 2, 3, and 4 with an associated isolation valve inoperable.

In addition, due to the Applicability change, new Required Action F.3 is added to be in Mode 5. This ensures that when conditions warrant, the Applicability of the LCO is exited. The Applicability change and addition of new Required Action F.3 for the MSIVs is discussed in DOC M11.

TS 3.7.3 evaluation

When the unit is in Mode 1, 2, 3, or 4, LCO 3.7.3 currently does not apply to the valves whose flow path is isolated by a closed and deactivated valve. Thus, when a MFCV is inoperable in Mode 1, 2, 3, or 4, once the affected flow path is isolated using a closed and deactivated MFCV, as required by Required Action A.1 or B.1, LCO 3.7.3 would not apply and the periodic verification of Required Actions A.2 and B.2 would not be required.

Similar to the Applicability of current TS 3.6.3, the current TS 3.7.3 Applicability is changed to not provide an exception once the affected flow path is isolated. The MFCVs will remain required to be Operable in Modes 1, 2, 3, and 4, even when the affected flow path is isolated. This change will ensure that the periodic verification of Required Actions A.2 and B.2 (changed to only be Required Action A.2 as described in another change) is performed as long as a valve in the affected flow path remains inoperable. This change is acceptable since it ensures the flow path is periodically verified to be in the post accident state (i.e., isolated) anytime when in Modes 1, 2, 3, and 4 with an associated isolation valve inoperable

TS 3.7.7 evaluation

When the unit is in Mode 1, 2, 3, or 4, LCO 3.7.7 currently does not apply to the valves whose flow path is isolated. Thus, when a startup feedwater control valve is inoperable in Mode 1, 2, 3, or 4, once the affected flow path is isolated, as required by Required Action A.1 or B.1, LCO 3.7.7 would not apply and the periodic verification of Required Action A.2 would not be required.

Similar to the Applicability of current TS 3.6.3, the current TS 3.7.7 Applicability is changed to not provide an exception once the affected flow path is isolated. The startup feedwater control valves will remain required to be Operable in Modes 1, 2, 3, and 4, even when the affected flow path is isolated. This change will ensure that the periodic verification of Required Action A.2 is performed as long as a valve in the affected flow path remains inoperable. This change is acceptable since it ensures the flow path is periodically verified to be in the post accident state (i.e., isolated) anytime when in Modes 1, 2, 3, and 4 with an associated startup feedwater control valve inoperable.

In addition, due to the Applicability change, new Required Action C.3 is added to be in Mode 5. This ensures that when conditions warrant, the Applicability of the LCO is exited. The Applicability change and addition of new Required Action C.3

for the startup feedwater isolation valves is discussed in DOC M11.

These changes to TS 3.7.2, TS 3.7.3, and TS 3.7.7 are designated as more restrictive since the LCOs are required in more conditions than currently required. Additionally, periodic verifications are required while certain valves remain inoperable and isolated. Furthermore, a unit shutdown to Mode 5 is required when other Action required allowances are not met or maintained.

Attachment 3

Detailed Description of Changes and Technical Evaluations

Relocations

The following changes are designated as Relocations

DOC / Affected Pages	Detailed Description and Technical Justification
R1	**Detailed Description**
3.9.5-1 3.9.5-2	Current TS 3.9.5, "Containment Penetrations," which provides the requirements for the containment penetrations during movement of irradiated fuel assemblies within containment is being relocated to a document that is committed to be controlled in accordance with 10 CFR 52.98.
	Technical Evaluation
	Current TS 3.9.5 provides requirements for the containment penetrations during movement of irradiated fuel assemblies within containment. The containment serves to contain fission product radioactivity that may be released from the reactor core following an accident, such that offsite radiation exposures are maintained within the requirements. However, there are no safety analyses that assume containment closure during movement of irradiated fuel assemblies within containment, other than those discussed in current TS 3.6.8, "Containment Penetrations," which is applicable in Modes 5 and 6 and which is being maintained in the TS. Fuel handling accidents, analyzed in Final Safety Analysis Report (FSAR) Section 15.7.4, include dropping a single irradiated fuel assembly and handling tool or a heavy object onto other irradiated fuel assemblies. After the activity escapes from the water pool, it is assumed that it is released directly to the environment within a 2-hour period. Closure of the containment purge lines can occur on detection of high radioactivity; however, no credit is taken for this in the analysis. The requirements of current TS 3.9.4, "Refueling Cavity Water Level," and current TS 3.9.7, "Decay Time," ensure that the release of fission product radioactivity, subsequent to a fuel handling accident, results in doses that are well within the dose acceptance limit. While the containment design will mitigate the consequences of a fuel handling accident, it would have no effect on core damage frequency, since it does not prevent fuel failure, but only reduces the dose if it occurs. The dose rates associated with the spent fuel handling accidents are not enough to result in large early release, since a delay time to allow fission products to decay is required before fuel can be placed in and therefore moved within the spent fuel pool. As such, while the VFS exhaust subsystem is modeled in the PRA, its importance in limiting the likelihood of a severe accident sequence that has shown to be significant to public health and safety is not significant (i.e., is less than 1.3% of the AP1000 Shutdown Large Release Frequency). Therefore, the requirements of current TS 3.9.5 are relocated to a document that is controlled in accordance with 10 CFR 52.98. This change is acceptable because current TS 3.9.5 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the TS, as discussed in the

Applicable Regulatory Requirements.

Since the 10 CFR 50.36(c)(2)(ii) criteria have not been met, the Containment Penetrations Specification during movement of irradiated fuel assemblies within containment may be relocated out of the Technical Specifications. SCE&G commits to relocate the Containment Penetrations during movement of irradiated fuel assemblies within containment Specification to a document that is controlled in accordance with 10 CFR 52.98.

R2 Detailed Description

3.9.6-1
3.9.7-1

Current TS 3.9.6, "Containment Air Filtration System (VFS)," which provides the requirements for the VFS exhaust subsystem during movement of irradiated fuel assemblies in the fuel building, is being relocated to a document that is committed to be controlled in accordance with 10 CFR 52.98. In addition, Current TS 3.9.7, "Decay Time," is renumbered as TS 3.9.5.

Technical Evaluation

Current TS 3.9.6 provides requirements for the VFS during movement of irradiated fuel assemblies in the fuel building. The radiologically controlled area ventilation system (VAS) serves the fuel handling area of the auxiliary building, and the radiologically controlled portions of the auxiliary and annex buildings, except for the health physics and hot machine shop areas which are provided with a separate ventilation system (VHS). If high airborne radioactivity is detected in the exhaust air from the fuel handling area, the auxiliary building, or the annex buildings, the VAS supply and exhaust duct isolation dampers automatically close to isolate the affected area from the outside environment and the containment air filtration exhaust subsystem starts. The VFS exhaust subsystem prevents exfiltration of unfiltered airborne radioactivity by maintaining the isolated zone at ≤ -0.125 inches water gauge pressure relative to the outside atmosphere.

For a fuel handling accident, the dose analysis does not rely on the Operability of the VAS or VFS exhaust subsystem to meet the offsite radiation exposure limits. Fuel handling accidents, analyzed in Final Safety Analysis Report (FSAR) Section 15.7.4, include dropping a single irradiated fuel assembly and handling tool or a heavy object onto other irradiated fuel assemblies. After the activity escapes from the water pool, it is assumed that it is released directly to the environment within a 2-hour period. This LCO is provided as an additional level of defense-in-depth against the possibility of a fission product release from a fuel handling accident in the fuel building. TS 3.7.5, "Spent Fuel Pool Water Level," and TS 3.9.7, "Decay Time," are the TS that support ensuring the design basis radiological consequences resulting from a postulated fuel handling accident are within the dose values provided in Final Safety Analysis Report (FSAR) Section 15.7.4.

While the VFS exhaust subsystem is designed to mitigate the consequences of a fuel handling accident in the spent fuel pool, it would have no effect on core damage frequency (or in this case, spent fuel damage frequency), since it does not prevent fuel failure, but only reduces the dose if it occurs. The dose rates

associated with the spent fuel handling accidents are not enough to result in large early release, since a delay time to allow fission products to decay is required before fuel can be placed in and therefore moved within the spent fuel pool. As such, while the VFS exhaust subsystem is modeled in the PRA, its importance in limiting the likelihood of a severe accident sequence that has shown to be significant to public health and safety is not significant (i.e., is less than 1.3% of the AP1000 Shutdown Large Release Frequency). Therefore, the requirements of current TS 3.9.6 are relocated to a document that is controlled in accordance with 10 CFR 52.98.

This change is acceptable because the VFS exhaust subsystem required by current TS 3.9.6 does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the TS, as discussed in the Applicable Regulatory Requirements.

Since the 10 CFR 50.36(c)(2)(ii) criteria are not met, the VFS exhaust subsystem may be relocated out of the Technical Specifications. SCE&G commits to relocate the VFS exhaust subsystem Specification to a document that is controlled in accordance with 10 CFR 52.98.

In addition, due to this relocation of current TS 3.9.6 and the relocation of current TS 3.9.5, "Containment Penetrations," which is discussed in DOC R1, current TS 3.9.7, "Decay Time," is renumbered as TS 3.9.5.

Attachment 4

Detailed Description of Changes and Technical Evaluations –

Detail Removed Changes

The following changes are designated as Detail Removed Changes:

DOC / Affected Pages	Detailed Description and Technical Justification
D01	**Detailed Description**
3.3.1-9 3.3.1-14	Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," Table 3.3.1-1 Function 17, Reactor Trip Breakers, Required Channels design detail “with 2 RTBs per division” is relocated from the TS. Current TS Table 3.3.1-1 Function 18, Reactor Trip Breaker (RTB) Undervoltage and Shunt Trip Mechanisms, Required Channels design detail “1 each per RTB mechanism” is removed from TS and replaced with “4 divisions.” Current TS 3.3.1 SR 3.3.1.6 Note stating "This Surveillance must be performed on both reactor trip breakers associated with a single division," is rewritten into the Surveillance text to state “Perform TADOT on both reactor trip breakers in one division.”
	Technical Evaluation
	The design provides eight reactor trip breakers (RTBs) arranged in four divisions with two RTBs per division. Each RTB is equipped with an undervoltage trip attachment and a shunt trip device. The current Action Condition for inoperabilities of these Functions (Actions N and O) references inoperable “divisions.” Any breaker or trip device inoperability will result in entry into the Actions. The specific design details are not necessary for assuring Operability or compliance with TS Actions. Removal of the channel design detail is consistent with current Conditions N and O that are based on "division" Operability, not individual component Operability.
	Current SR 3.3.1.6 is performed on a Staggered Test Basis, based on the number of divisions. Testing the two reactor trip breakers in the division for each surveillance interval is currently stated in the Note. However, Surveillance Notes typically (refer to Improved TS Writer’s Guide, TSTF GG 05 01, subsection 4.1.7.d) allow a limited exception to the Surveillance Requirement acceptance criteria or requirement to perform. In this case, the Note is stating expected attributes of each test and that is better presented within the Surveillance text. Rewriting the Note into the new SR 3.3.7.1 still retains the requirement for performing the Trip Actuating Device Operational Test (TADOT) on both reactor trip breakers within the division.
	These changes are acceptable because these types of design and procedural details are adequately controlled in the FSAR and TS Bases. Changes to the design as outlined in the FSAR are controlled in accordance with 10 CFR 50.59 and 10 CFR 52, Appendix D, Section VIII. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because procedural details for meeting TS requirements are being moved from the TS to the TS Bases.

SCE&G commits to add detail to the new SR 3.3.7.1 TS Bases stating that both RTBs are tested in one division.

D02 Detailed Description

3.3.3-3 Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Table 3.3.3-1, "Post-Accident Monitoring Instrumentation," Function 5 is revised from "Pressurizer Pressure and RCS Subcooling Monitor," to "RCS Subcooling Monitor."

Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Table 3.3.3-1, "Post-Accident Monitoring Instrumentation," footnote (a) stating "RCS Subcooling calculated from pressurizer pressure and RCS hot leg temperature," is relocated to the associated TS Bases.

Technical Evaluation

Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," is renumbered as TS 3.3.17 as discussed in DOC A028.

The inputs to the RCS Subcooling Monitor are pressurizer pressure and RCS hot leg temperature. The current Function title is confusing in that it includes the actual Function (RCS Subcooling Monitor) and one of the inputs (Pressurizer Pressure). The associated Bases adequately describe the inputs to the RCS Subcooling Monitor. Therefore, this level of detail is not required in the TS Function name.

Footnote (a) provides the design detail for the RCS Subcooling Monitor. The removal of these design details for the RCS subcooling calculation inputs from the TS is acceptable because this type of information is not necessary to be included in the TS to provide adequate protection of public health and safety. Current TS 3.3.3, Table 3.3.3-1, still retains a requirement for the Subcooling Margin Monitor Function to be Operable. Also, this change is acceptable because these types of design details are adequately controlled in the Final Safety Analysis Report (FSAR) and TS Bases. Changes to the design input to the subcooling monitor are controlled in accordance with 10 CFR 50.59 and 10 CFR 52, Appendix D, Section VIII. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because design details for meeting TS requirements are being moved from the TS to the TS Bases.

SCE&G commits to relocate Table 3.3.3-1, footnote (a), "RCS Subcooling calculated from pressurizer pressure and RCS hot leg temperature," to the TS Bases.

D03 Detailed Description

3.3.2-25 Current TS 3.3.2, “Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Functions 25 and 26 descriptions of Required Channels are revised to delete “battery backed” from the new TS 3.3.15, “Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Operating,” and TS 3.3.16, “Engineered Safety Feature Actuation System (ESFAS) Actuation Logic – Shutdown,” LCO statement.

Technical Evaluation

As described in TSTF-GG-05-01, subsection 4.1.4.a, the LCO is intended to describe, as simply as possible, the lowest functional capability or performance levels of equipment required for the safe operation of the facility. It is acceptable to generically refer to the system, subsystem, component, or parameter that is the subject of the LCO and provide the specific scope/boundaries in the Bases. The proposed change to the LCO simplifies the LCO statement by removing the design detail “battery backed” and is consistent with the intent of the current Required Channel wording.

The removal of this design detail from the TS is acceptable because this type of information is not necessary to be included in the TS to provide adequate protection of public health and safety. New TS 3.3.15 and new TS 3.3.16 still retain the requirement for four Divisions with one subsystem to be Operable. Also, this change is acceptable because these types of design details are adequately controlled in the FSAR and TS Bases. Changes to the Class 1E power design for Protection and Safety Monitoring System are controlled in accordance with 10 CFR 50.59 and 10 CFR 52, Appendix D, Section VIII. Changes to the Bases are controlled by the TS Bases Control Program. This change is designated as a less restrictive removal of detail change because design details for meeting TS requirements are currently in the FSAR and TS Bases.

D04 Detailed Description

3.4.17-2 Current TS 3.4.17, "Chemical and Volume Control System (CVS) Makeup Isolation Valves," SR 3.4.17.2 requires verification that the closure time of each CVS makeup line isolation valve is $\leq$ 30 seconds on an actual or simulated actuation signal. Current TS 3.1.9, "Chemical and Volume Control System (CVS) Demineralized Water Isolation Valves and Makeup Line Isolation Valves," includes this Surveillance, as discussed in DOC A064. New SR 3.1.9.2 requires verification that the closure time of each CVS makeup line isolation valve is within limits on an actual or simulated actuation signal. The actual isolation time requirement is relocated to the Bases of new SR 3.1.9.2.

Technical Evaluation

The removal of the CVS makeup line isolation valves closure times from the TS is acceptable because this type of information is not necessary to be included in the TS in order to provide adequate protection of public health and safety. Proposed

SR 3.1.9.2 retains the requirement to verify that the isolation time of each CVS makeup line isolation valve is within limits. Also, this change is acceptable because these types of details are adequately controlled in the TS Bases. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail because a detail for meeting TS requirements is being removed from the TS.

SCE&G commits to relocate the closure time requirement (i.e., < 30 seconds) of each CVS makeup line isolation valve to the new SR 3.1.9.2 TS Bases.

D05 Detailed Description

3.5.1-2 Current TS 3.5.1, "Accumulators," SR 3.5.1.4 second Frequency states "Once within 6 hours after each solution volume increase of ≥ 51 cu. ft., 3.0% that is not the result of addition from the in-containment refueling water storage tank." The second Frequency is revised to delete the "3.0%."

Technical Evaluation

The removal of the 3.0% modifier is made since the actual volume addition, 51 cu. ft., is already provided in the SR Frequency. There is no reason to list an additional percent value when the specific volume is already listed. Furthermore, the percent value is providing a calculation that is not referenced to anything specific, like total volume or indicated volume. TSTF-GG-05-01, subsection 3.3.4.e states to avoid the use of formulas and calculations where possible. Therefore, deleting this information from the TS is acceptable because this type of information is not necessary to be included in the TS in order to provide adequate protection of public health and safety. The revised SR 3.5.1.4 continues to include the specific value, 51 cu. ft., at which the SR is required to be performed if the solution volume is increased by this amount. The 3% modifier is stated in the Bases. This change is acceptable because this type of detail is adequately controlled in the TS Bases. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because a procedural detail for meeting TS requirements is removed from the TS.

D06 Detailed Description

3.6.6-1
3.6.7-1 Current TS 3.6.6, "Passive Containment Cooling System (PCS) - Operating," LCO and current TS 3.6.7, "Passive Containment Cooling System (PCS) - Shutdown," LCO state "The passive containment cooling system shall be OPERABLE, with all three water flow paths OPERABLE." The TS 3.6.6 LCO statement is revised to be "The passive containment cooling system shall be OPERABLE." Note that TS 3.6.6 and TS 3.6.7 are being combined into a single TS as discussed in DOC M13.

Technical Evaluation

The removal of the details of PCS Operability (specifically that all three water flow paths are Operable) from the TS is acceptable because this type of information is not necessary to be included in the TS in order to provide adequate protection of public health and safety. Proposed LCO 3.6.6 continues to require the PCS to be Operable, and SR 3.6.6.3 continues to require verification that each PCS manual, power operated, and automatic valve in "each" flow path that is not locked, sealed or otherwise secured in position, is in the correct position. Also, this change is acceptable because these types of details are adequately controlled in the TS Bases. The LCO section of the Bases clearly states that Operability of the PCS requires all three flow paths. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is consistent with the manner in which LCOs are described in other TS, in that the details for Operability are located in the TS Bases and confirmed by the TS SRs. This change is designated as a less restrictive removal of detail change because a detail for meeting TS requirements is being removed from the TS.

D07 Detailed Description

3.6.8-1 Current TS 3.6.8, "Containment Penetrations," LCO 3.6.8.a, b, and c include a statement that if the component is open, it must be clear of obstructions such that is can be closed prior to steaming into the containment. The "clear of obstructions" clarifying detail is deleted from Current LCO 3.6.8.a, b, and c.

Technical Evaluation

Current TS 3.6.8, "Containment Penetrations," is renumbered as TS 3.6.7 as discussed in DOC M13.

Current LCO 3.6.8.a, b, and c require the equipment hatches, air lock doors, and containment spare penetrations to be in the correct condition. This includes an allowance to have the penetrations open, provided they can be closed prior to steaming into the containment. The revised TS LCO continues to require the equipment hatches, air lock doors, and containment spare penetrations to be in the correct condition, and capable of being closed in time. The removal of the amplifying statement "clear of obstructions" from current LCO 3.6.8.a, b, and c is acceptable because this type of information is not necessary to be included in the TS to provide adequate protection of public health and safety. The specific statement concerning "clear of obstructions" is not necessary since the LCO continues to require the equipment hatches, air lock doors, and containment spare penetrations to be closed prior to steaming into the containment. “Obstructions" are allowed such that they would not hamper closure time. The proposed TS retain the necessary requirements to ensure the components can be closed prior to steaming into the containment. The “clear of obstructions such that” clarification is cited in the Bases. This change is acceptable because these types of details are adequately controlled in the TS Bases. Changes to the Bases are controlled

by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. As such, this change is designated a removed detail change.

D08 Detailed Description

3.6.9-1 Current TS 3.6.9, "pH Adjustment," SR 3.6.9.1 includes the chemical formula for trisodium phosphate (TSP). The chemical formula for TSP "(Na_3PO_4-12 H_2O)" is deleted from the SR.

Technical Evaluation

Current TS 3.6.9, "pH Adjustment," is renumbered as TS 3.6.8 as discussed in DOC M13.

Current SR 3.6.9.1 verifies the required TSP is available in the pH adjustment baskets. The removal of the chemical formula for TSP from the SR is acceptable because this type if information is not necessary to be included in the TS to provide adequate protection of public health and safety. The proposed TS retains the necessary requirements to ensure the pH adjustment baskets contain the required TSP, both in the LCO statement and SR 3.6.9.1. Additionally, the Bases present the specific formula for TSP. This change is also acceptable because these types of details are adequately controlled in the TS Bases. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. As such, this change is designated a removed detail change.

D09 Detailed Description

3.7.2-4
3.7.3-2 Current TS 3.7.2, "Main Steam Isolation Valves (MSIVs)," SRs 3.7.2.1 and 3.7.2.2 require verification of the MSIV closure time and the turbine stop valve, turbine control valve, turbine bypass valve, and moisture separator reheater second stage steam isolation valve closure times, respectively. The closure time for these valves is $\leq$ 5 seconds. The closure time is removed from the two SRs and replaced with the words "is within limits."

Current TS 3.7.3, "Main Feedwater Isolation and Control Valves (MFIVs and MFCVs)," SR 3.7.3.1 requires verification of the MFIV and MFCV closure time. The closure time for these valves is $\leq$ 5 seconds. The closure time is removed from the SR and replaced with the words "is within limits."

Technical Evaluation

The removal of MSIV, turbine stop valve, turbine control valve, turbine bypass valve, moisture separator reheater second stage steam isolation valve, MFIV, and MFCV closure times from the TS is made to be consistent with the allowances of TSTF-491, "Removal of Main Steam and Main Feedwater Valve Isolation Times

from TSs." The change is acceptable because this type of information is not necessary to be included in the TS in order to provide adequate protection of public health and safety. The proposed SRs retain the requirement to verify that the isolation time of each MSIV, turbine stop valve, turbine control valve, turbine bypass valve, moisture separator reheater second stage steam isolation valve, MFIV, and MFCV is within limits. The closure time will be maintained in the TS Bases.

This change is acceptable because these types of procedural details are adequately controlled in the TS Bases. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is consistent with TSTF-491, which allowed the closure times to be moved to a plant-controlled document. This change is designated as a less restrictive removal of detail change because a procedural detail for meeting TS requirements are being removed from the TS.

D10 Detailed Description

3.7.6-2 Current TS 3.7.6, "Main Control Room Emergency Habitability System (VES)," Condition D states "One bank of VES air tanks (8 tanks) inoperable." Current TS 3.7.6 Condition D is revised to "One bank of VES air tanks inoperable."

Technical Evaluation

The removal of the term that describes how many tanks constitute a single bank (i.e., 8 tanks) from the TS is acceptable because this type of information is not necessary to be included in the TS in order to provide adequate protection of public health and safety. The proposed Condition D retains the requirement that a single bank of tanks is inoperable. Also, this change is acceptable because this descriptive detail is adequately controlled in the TS Bases consistent with the Final Safety Analysis Report (FSAR). The Required Action D.1, D.2, and D.3 Bases state that one bank of VES air tanks is equivalent to "8 tanks out of 32 total." Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because a descriptive detail is being removed from the TS.

D11 Detailed Description

3.7.6-4 Current TS 3.7.6, "Main Control Room Emergency Habitability System (VES)," SR 3.7.6.6 states "Verify that the air quality of the air storage tanks meets the requirements of Appendix C, Table C-1 of ASHRAE Standard 62." Current SR 3.7.6.6 is changed to "Verify the air quality of the air storage tanks is within limits."

Technical Evaluation

The removal of the required limit, Appendix C, Table C-1 of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62, from the TS is acceptable because this type of information is not necessary to be included in the TS in order to provide adequate protection of public health and safety. The proposed SR 3.7.6.6 retains the requirement that the air quality of the tanks is within the required limits. Also, this change is acceptable because these types of procedural details are adequately controlled in the TS Bases. The SR 3.7.6.6 Bases state that the verification of the air quality of the air storage tanks must meet the requirements of Appendix C, Table C-1 of ASHRAE Standard 62. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because a procedural detail for meeting TS requirements is being removed from the TS.

D12 Detailed Description

3.7.10-2 Current TS 3.7.10, "Steam Generator (SG) Isolation Valves," SR 3.7.10.1 includes the valve numbers for the PORVs, PORV block valves, and blowdown isolation valves. The specific valve numbers have been deleted from the SR.

Technical Evaluation

Current SR 3.7.10.1 verifies that each steam generator PORV, PORV block valve, and blowdown isolation valve is Operable by stroking the valve closed. The Surveillance specifically lists the name of the valves required to be tested. The removal of the valve numbers for the required valves from the SR is acceptable because this type of information is not necessary to be included in the TS to provide adequate protection of public health and safety. The proposed TS retain the necessary requirements to ensure the required valves are identified, both in the LCO statement and SR 3.7.10.1 (i.e., the steam generator PORVs, PORV block valves, and blowdown isolation valves). The valve numbers are stated in the Bases. This change is acceptable because this type of detail is adequately controlled in the TS Bases. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. As such, this change is designated a less restrictive removal of detail change because information concerning the valve numbers of valves identified in the TS is removed from the TS.

D13 Detailed Description

3.8.3-1 Current TS 3.8.3, “Inverters – Operating," is revised to delete “(Divisions A and D, one each and Divisions B and C two each; six total),” from the LCO statement.

Technical Evaluation

As described in TSTF-GG-05-01, subsection 4.1.4.a, the LCO is intended to describe, as simply as possible, the lowest functional capability or performance levels of equipment required for the safe operation of the facility. It is acceptable to generically refer to the system, subsystem, component, or parameter that is the subject of the LCO and provide the specific scope/boundaries in the Bases. In addition, TSTF-GG-05-01, subsection 3.3.1.g, recommends avoiding the overuse of parenthetical type statements within sentences, as they generally make the sentence longer, more complicated, and more difficult to understand. The proposed change to the LCO simplifies the LCO statement, is consistent with the intent of the current wording, and remains consistent with the wording of the Actions entry conditions.

The removal of these design details from the TS is acceptable because this type of information is not necessary to be included in the TS to provide adequate protection of public health and safety. TS 3.8.3 still retains a requirement for the Division A, B, C, and D inverters to be Operable. Also, this change is acceptable because these types of design details are adequately controlled in the TS Bases. Changes to the Class 1E inverter design are controlled in accordance with 10 CFR 50.59 and 10 CFR 52, Appendix D, Section VIII. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled. This change is designated as a less restrictive removal of detail change because design details for meeting TS requirements are currently in the TS Bases.

D14 Detailed Description

5.5-11
5.5-12

Current TS 5.5.13, "Ventilation Filter Testing Program (VFTP)," is revised as follows:

- Paragraph 'a' is revised to replace "…flow rate at least 600 cfm greater than the flow measured by VES-FT-003A/B. The flow rate being measured is a combination of the VES breathable air supply flow and the recirculation flow drawn through the educator," with "… flow rate at least 600 cfm greater than the VES makeup flow rate."
- Paragraph 'b' is revised to replace "… flow rate at least 600 cfm greater than the flow measured by VES-FT-003A/B. The flow rate being measured is a combination of the VES breathable air supply flow and the recirculation flow drawn through the educator," with "…flow rate at least 600 cfm greater than the VES makeup flow rate."
- References to "VES supply flow" are revised to "VES makeup flow rate."

Technical Evaluation

Currently, TS 5.5.13, paragraphs 'a' and 'b' contain an excessive amount of detail when compared to the NUREG-1431, TS 5.5.11 requirements. Details related to the measurement device used to measure the VES makeup flow and the discussion that the flow rate is a combination of the VES breathable air supply flow

and the recirculation flow drawn through the educator are not details required in the TS description, and are more appropriately controlled in the Final Safety Analysis Report (FSAR) design details.

The removal of these details for VES flow rate measurement from the TSs is acceptable because this type of information is not necessary to be included in the TSs to provide adequate protection of public health and safety. TS 5.5.13 still retains a requirement for the required flow rate associated with system testing. Under the definition of Operability, the VES provides passive air filtration for the main control room during VES operation. Also, this change is acceptable because the removed information is adequately addressed in FSAR Section 6.4.2.3, Section 6.4.4, and supporting Figure 6.4-2. Changes to the VES flow paths and flow measurement design for Protection and Safety Monitoring System are controlled in accordance with 10 CFR 50.59 and 10 CFR 52, Appendix D, Section VIII. This change is designated as a less restrictive removal of detail change because procedural details for meeting TS requirements are being moved from the TSs to the FSAR.

Replacing this detail with reference to "VES makeup flow rate" is consistent with the terminology used in FSAR Subsection 6.4.2. Changes replacing "VES supply flow" with "VES makeup flow rate," are made for consistency with this change.

Attachment 5

Detailed Description of Changes and Technical Evaluations – Less Restrictive Changes

The following changes are designated as Less Restrictive:

DOC / Affected Pages	Detailed Description and Technical Justification
L01	**Detailed Description**
1.1-1 3.1.9-2 3.3.2-12 3.3.2-13 3.4.11-2 3.4.13-2 3.5.2-2 3.5.4-3 3.5.6-3 3.5.8-3 3.6.10-2 3.7.7-2	The TS Definition for Actuation Device Test is deleted. Reference to “overlap with the ACTUATION DEVICE TEST” that is cited in the definition of Actuation Logic Test is replaced with “overlap with the actuated device.” Current TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," SR 3.3.2.7 (“Perform ACTUATION DEVICE TEST”) and SR 3.3.2.8 (“Perform ACTUATION DEVICE TEST for squib valves”) are deleted from current TS 3.3.2 and Table 3.3.2-1, Function 26.a, ESF Actuation Subsystem. The equivalent requirement (using phrasing generally consistent with NUREG-1431) is included in individual Specifications for the actuated devices with the same 24 month Frequency as the deleted SRs. The following are the SRs being added: • New SR 3.1.9.3 is added to TS 3.1.9, "Chemical and Volume Control System (CVS) Demineralized Water Isolation Valves and Makeup Line Isolation Valves," stating: “Verify each CVS demineralized water isolation valve actuates to the isolation position on an actual or simulated actuation signal.” • New SR 3.4.11.4 is added to TS 3.4.11, "Automatic Depressurization System (ADS) – Operating," stating: “Verify each stage 1, 2, and 3 ADS valve actuates to the open position on an actual or simulated actuation signal.” • New SR 3.4.11.5 is added to TS 3.4.11, stating: “Verify continuity of the circuit from the Protection Logic Cabinets to each stage 4 ADS valve;" also including a Note to the SR stating: “Squib actuation may be excluded.” • SR 3.5.2.7 is added to TS 3.5.2, "Core Makeup Tanks (CMTs) – Operating," stating: “Verify each CMT outlet isolation valve actuates to the open position on an actual or simulated actuation signal.” Consequently, current SR 3.5.2.7 is renumbered as SR 3.5.2.8. • SR 3.5.4.8 is added to TS 3.5.4, "Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Operating," stating: “Verify both PRHR HX air operated outlet isolation valves actuate to the open position and both IRWST gutter isolation valves actuate to the isolation position on an actual or simulated actuation signal.” Consequently, some subsequent SRs are appropriately renumbered. • SR 3.5.6.9 is added to TS 3.5.6, "In-containment Refueling Water Storage Tank (IRWST) – Operating," stating: “Verify continuity of the circuit from the Protection Logic Cabinets to each IRWST injection and containment recirculation squib valve on an actual or simulated actuation signal;" also

including a Note to the SR stating: "Squib actuation may be excluded." Consequently, current SR 3.5.6.9 and SR 3.5.6.10 are renumbered as SR 3.5.6.10 and SR 3.5.6.11, respectively.

- A new SR is added to current TS 3.6.10, "Vacuum Relief Valves," stating: "Verify each vacuum relief valve actuates to relieve vacuum on an actual or simulated actuation signal." This SR is numbered SR 3.6.9.3, because current TS 3.6.10, "Vacuum Relief Valves," was renumbered as TS 3.6.9 as discussed in DOC M13.
- SR 3.7.7.2 is added to TS 3.7.7, "Startup Feedwater Isolation and Control Valves," stating: "Verify each startup feedwater isolation and control valve actuates to the isolation position on an actual or simulated actuation signal."
- SR 3.7.10.3 is added to TS 3.7.10, "Steam Generator (SG) Isolation Valves," stating "Verify each SG PORV, PORV block valve, and SG blowdown isolation valve actuates to the isolation position on an actual or simulated actuation signal."

Current TS 3.4.13, "Automatic Depressurization System (ADS) – Shutdown, RCS Open," SR 3.4.13.2 is revised to include listing of proposed SR 3.4.11.5.

Current TS 3.5.8, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 6," SR 3.5.8.4 is revised to address new SR 3.5.6.9 by adding the renumbered SR 3.5.6.11.

The following new SRs with a 24-month Frequency are included in the new instrument Specifications. The new Specifications result from reformatting of current TS 3.3.2 and are addressed in DOC A028.

- Current SR 3.3.2.9 (renumbered as new SR 3.3.15.2) is revised to eliminate the use of the Actuation Device Test defined term. "Perform ACTUATION DEVICE TEST for pressurizer heater circuit breakers" is replaced with "Verify pressurizer heater circuit breakers trip open on an actual or simulated actuation signal;" also including a Note to the SR stating: "Only required to be met in MODE 4 above the P-19 (RCS Pressure) interlock with the RCS not being cooled by RNS."
- New SR 3.3.15.3 and new SR 3.3.16.2 are added, each requiring: "Verify reactor coolant pump breakers trip open on an actual or simulated actuation signal." SR 3.3.16.2 also includes a Note stating "Only required to be met in MODE 5."
- New SR 3.3.15.4 and new SR 3.3.16.3 are added, each requiring: "Verify CVS letdown isolation valves actuate to the isolation position on an actual or simulated actuation signal." SR 3.3.15.4 also includes a Note stating: "Only required to be met in MODE 4 with the RCS being cooled by the RNS or below the P-12 (Pressurizer Level) interlock." SR 3.3.16.3 also includes two Notes stating: "1. Not required to be met in MODE 5 above the P-12 (Pressurizer Level) interlock;" and "2. Not required to be met in MODE 6 above the P-12 (Pressurizer Level) interlock and water level ≥ 23 feet above the top of the reactor vessel flange."

- New SR 3.3.15.5 is added stating: "Verify main feedwater and startup feedwater pump breakers trip open on an actual or simulated actuation signal."
- New SR 3.3.15.6 is added stating: "Verify auxiliary spray and purification line isolation valves actuate to the isolation position on an actual or simulated actuation signal." SR 3.3.15.6 also includes a Note stating: "Only required to be met in MODES 1 and 2."
- New SR 3.3.16.4 is added stating "Verify Spent Fuel Pool Cooling System containment isolation valves actuate to the isolation position on an actual or simulated actuation signal." SR 3.3.16.4 also includes a Note stating: "Only required to be met in MODE 6." These valves actuate on the Spent Fuel Pool Level – Low signal.

Technical Evaluation

In accordance with the defined term, an actuation device test is a test of the actuated equipment. And as discussed in the TS Bases, performance of an actuation device test demonstrates that the actuated device responds to a simulated actuation signal. As such, Surveillances associated with the testing of the actuated equipment should be addressed in the actuated equipment Specifications, where failures of the surveillance would lead to entering the Actions for the inoperable actuated equipment.

Currently, the only Surveillances that utilize this defined term are in TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation;" as SRs 3.3.2.7, 3.3.2.8, and 3.3.2.9. SRs 3.3.2.7 and 3.3.2.8 provide the actuation device test for Engineered Safety Features (ESF) that are actuated by Table 3.3.2-1, Function 26. As such, failures of SRs 3.3.2.7 and 3.3.2.8 (i.e., failures in the actuated equipment) would inappropriately result in applying the Actions of LCO 3.3.2 for Function 26. This is inconsistent with the intent of applying Actions specific to the equipment inoperability. Therefore SRs 3.3.2.7 and 3.3.2.8 are deleted from current TS 3.3.2 and Table 3.3.2-1, Function 26, ESF Actuation. In conjunction with this deletion, each Specification for ESF actuated equipment is provided with Surveillance(s) that appropriately address the testing of the actuated devices consistent with these SRs and the definition being removed. In certain actuated device Specifications, there is currently an appropriate actuated device test and no new SR is added. Where an actuated device test is not specified in the existing actuated equipment Specification, a new SR is added as listed in the Detailed Description section above.

The effect of moving the requirement for the actuated device test from current TS 3.3.2 to the individual equipment Specifications is for less restrictive actions when the device is inoperable. As an SR associated with current TS 3.3.2, Table 3.3.2-1, Function 26 for Modes 1, 2, 3, and 4, would impose a 6 hour restoration (Action D) prior to a required plant shutdown (Action O). Each of the individual equipment Specifications with SRs added to address actuation device testing (listed in Detailed Description section above) has a 72-hour or 7-day restoration allowance. This is followed in some cases by additional flexibility to isolate associated flowpaths in lieu of plant shutdown. These less restrictive

actions are currently approved in current TS as appropriate for the inoperable devices. The current more restrictive actions imposed by TS 3.3.2 are therefore deemed excessively restrictive. The change maintains the same level of safety provided by the existing separate TS Actions for inoperability of the specific actuated devices.

SR 3.3.2.9 currently requires “Perform ACTUATION DEVICE TEST for pressurizer heater circuit breakers.” Since the actuated equipment of pressurizer heater circuit breakers do not have a separate Specification for their operability and testing, it is appropriate to retain a Surveillance for the actuated device. However, SR 3.3.2.9 is editorially revised (as new SR 3.3.15.2) to require “Verify pressurizer heater circuit breakers trip open on an actual or simulated actuation signal.” This phrasing is consistent with similar Surveillances in NUREG-1431 for actuated devices, and is consistent with the editorial presentation preference presented for similar actuated device testing as discussed above. The presentation in new TS 3.3.15 results in conservative actions in the event of an inoperable pressurizer heater breaker (i.e., inability to trip on an actuation signal); that is, a 6-hour to restore provision (TS 3.3.15, Action A) followed by a required plant shutdown (TS 3.3.15, Action B). This is less restrictive than the LCO 3.0.3 entry that would be required in the existing TS 3.3.2 presentation. Currently, failing SR 3.3.2.9 would result in Division A and Division C actuation subsystem being inoperable, i.e., two channels of current Function 26.a being inoperable. Current TS 3.3.2 Actions D and G do not provide for more than one inoperable division, which results in the LCO 3.0.3 entry.

Similar to the pressurizer heater circuit breaker actuated device discussed above, there are a few other actuated devices that are required by the current TS 3.3.2 and its Actuation Device Tests, which do not have a separate Specification for operability of the actuated device. As such, in eliminating the Actuation Device Test definition and existing SRs, SRs are added to the ESFAS Actuation Logic Specifications (new TS 3.3.15 and TS 3.3.16) listed in the Detailed Description section above. The effect is a simple reformatting of the existing Actuation Device Test SR to a more device-specific SR. Consistent with the Applicability for the instrument functions that actuate the devices, each new Surveillance Requirement includes one or more Notes stating when the Surveillance is required to be met. No technical change results.

This less restrictive change results in closer alignment with NUREG Standard TS presentation of actuated device testing, and associated required actions for inoperabilities of actuated devices. While certain actions for inoperability of actuated devices are made less restrictive by eliminating entry into ESFAS Actuation and Instrumentation inoperability actions, no action is made less restrictive than currently approved for any device inoperability. As such there is no adverse impact to public health and safety.

L02 Detailed Description

Current TS 5.6, “Reporting Requirements," is revised to delete TS 5.6.1,
1.1-2 “Occupational Radiation Exposure Report,” and TS 5.6.4, “Monthly Operating

1.1-5
3.3.3-1
5.5-1
5.6-1
5.6-2
5.6-3
5.6-4
5.6-5
5.6-6

Reports." These changes result in the renumbering of TS 5.6 sections, but do not revise technical or administrative requirements. The changes are consistent with NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-369, "Removal of Monthly Operating Report and Occupational Radiation Exposure Report," Revision 1. The availability of this TS improvement was announced in the Federal Register on June 23, 2004 (69 FR 35067) as part of the Consolidated Line Item Improvement Process (CLIIP).

Technical Evaluation

South Carolina Electric and Gas Company (SCE&G) has reviewed the safety evaluation (SE) published on June 23, 2004 (69 FR 35067) as part of the Consolidated Line Item Improvement Process (CLIIP) Notice of Availability. This verification included a review of the NRC staff's SE and the information provided to support TSTF-369, Revision 1. SCE&G has concluded that the justifications presented in the TSTF proposal and the SE prepared by the NRC staff are applicable to VCSNS and justify this amendment for the incorporation of the changes to the TS.

SCE&G is making a regulatory commitment to provide to the NRC using an industry database the operating data (for each calendar month) that is described in Generic Letter 97-02, "Revised Contents of the Monthly Operating Report," by the last day of the month following the end of each calendar quarter. The regulatory commitment will be based on use of an industry database (e.g., the industry's Consolidated Data Entry (CDE) program, currently being developed and maintained by the Institute of Nuclear Power Operations).

The Virgil C. Summer Nuclear Station (VCSNS) site does not have different reactor types or both operating and shutdown reactors. VCSNS, Units 1, 2, and 3 are all pressurized water reactors (PWRs).

This change is consistent with the May 19, 2006, Amendment No. 175 to Facility Operating License NPF-12 for the Virgil C. Summer Nuclear Station, Unit 1.

L03 Detailed Description

1.1-2
3.8.2-1
3.8.2-2
3.8.4-1
3.8.4-2
3.8.6-1
3.8.6-2
3.9.1-1
3.9.2-1
3.9.3-1

TS are revised to eliminate the use of the defined term "CORE ALTERATION" and incorporates changes reflected in Technical Specification Task Force (TSTF) 471-A.

The proposed change affects the following specifications:

- Current TS 1.1, "Definitions": The definition of "CORE ALTERATION" in TS 1.1 is deleted.
- Current TS 3.8.2, "DC Sources – Shutdown": Required Action A.2.1 is deleted, resulting in the renumbering of the subsequent Required Actions.
- Current TS 3.8.4, "Inverters – Shutdown": Required Action A.2.1 is deleted, resulting in the renumbering of the subsequent Required Actions.
- Current TS 3.8.6, "Distributions Systems – Shutdown": Required Action

A.2.1 is deleted, resulting in the renumbering of the subsequent Required Actions.

- Current TS 3.9.1, "Boron Concentration": Required Action A.1 is deleted, resulting in the renumbering of the subsequent Required Actions.
- Current TS 3.9.2, "Unborated Water Source Flow Paths": Required Action A.1 is deleted, resulting in the renumbering of the subsequent Required Actions.
- Current TS 3.9.3, "Nuclear Instrumentation": Required Action A.1 is modified to replace "CORE ALTERATIONS" with "positive reactivity additions."

Technical Evaluation

As discussed below, suspending core alterations has no effect on the initial conditions or mitigation of any design basis accident or transient. Requirements to suspend core alterations impose an operational burden with no corresponding safety benefit. Since core alterations only occur when the reactor vessel head is removed, they only apply in Mode 6. Two events considered during Mode 6 are the fuel handling accident and the boron dilution incident.

The fuel handling accident analysis assumes the dropping of a spent fuel assembly such that every rod in the dropped assembly has its cladding breached releasing the activity in the fuel/cladding gap. The possibility of a fuel handling accident is remote because of the many administrative controls and the equipment operating limits that are incorporated in the fuel handling operations. However, if an assembly were damaged to the extent that one or more fuel rods were broken, the gaseous and volatile radionuclides contained in the fuel/cladding gap would be released to the surrounding water. The radionuclides of concern are the noble gases (kryptons and xenons) and iodines. There is no credited mitigation for the FHA, except for taking credit for control room ventilation systems to reduce the control room operator dose consequences. The suspension of core alterations, except for suspension of movement of irradiated fuel, will not prevent or impair the mitigation of a FHA.

The second analyzed event is a boron dilution incident. A boron dilution incident is initiated by a dilution source which results in the boron concentration dropping below that required to maintain the shutdown margin. Current TS 3.9.1, which applies in Mode 6, requires the refueling boron concentration limit to be maintained within the limit specified in the COLR. As described in the Bases, “plant procedures ensure the specified boron concentration in order to maintain an overall core reactivity of $k_{eff} \leq 0.95$ during fuel handling with control rods and fuel assemblies assumed to be in the most adverse configuration (least negative reactivity) allowed by procedures.” The boron dilution incident is mitigated by stopping the dilution, which would be addressed by Required Action A.2 that requires suspension of positive reactivity additions. Suspension of core alterations has no effect on the mitigation of a boron dilution incident.

Current TS 3.9.3 is provided to alert the operator to unexpected changes in core reactivity. The current Required Action to suspend core alterations is overly

restrictive in precluding reductions in core reactivity (e.g., insertion of control rods or removal of fuel assemblies). This Required Action is revised to suspend positive reactivity additions if one of two required nuclear instrumentation monitoring channels is inoperable. This precludes addition of fuel assemblies, or withdrawal of control rods, which could add reactivity to the core.

The NRC staff review of TSTF-471 (as documented in letter dated December 7, 2006; Accession No. ML062860320), removing the requirements to suspend core alterations concluded that removing the requirement to suspend core alterations from the TS related to operation in Mode 6 is acceptable.

Each specific change is discussed further below.

Current TS 1.1

With the elimination of all uses of the defined term, "CORE ALTERATION," the definition in TS 1.1 is removed.

Current TS 3.8.2, 3.8.4, and 3.8.6

If a required train of electrical power (DC, Inverters, or Distribution Systems) is inoperable, the Required Actions require:

- Suspension of core alterations
- Suspension of movement of irradiated fuel assemblies, and
- Suspension of operations involving positive reactivity additions that could result in loss of required Shutdown Margin (SDM) or boron concentration.

As discussed above, because the Required Actions require the suspension of movement of irradiated fuel assemblies, the initiating conditions for a fuel handling accident are prevented. Because the Required Actions require the suspension of positive reactivity additions that could result in a loss of SDM, the initiating conditions for a boron dilution incident are prevented. Therefore, the action to suspend core alterations provides no safety benefit and is not needed.

Current TS 3.9.1

If boron concentration is not within limit, the Required Actions require immediate suspension of core alterations, immediate suspension of positive reactivity additions, and immediate actions to restore the boron concentration within limits. This Specification is concerned with a boron dilution incident. The requirement to suspend positive reactivity additions and initiate actions to restore boron concentration to within limits are the appropriate actions needed to compensate for boron concentration not within limits, thus minimizing the consequences of a potential boron dilution incident. Therefore, the Action to suspend core alterations provides no safety benefit and is not needed.

Current TS 3.9.2

If one or more unborated water source isolation valves are not secured in the closed position, current actions require that core alterations must be suspended and actions taken to secure the valve in the closed position. The purpose of this Specification is to prevent a boron dilution incident. As discussed above, core alterations have no effect on a boron dilution incident, either as an initiator or as a mitigator. Suspending core alterations when a valve is not secured does not

provide compensation or reduce the probability of the event. Therefore, the action to suspend core alterations provides no safety benefit and is not needed.

Current TS 3.9.3

If a required source range neutron flux monitor is inoperable, current actions require that core alterations must be suspended and suspension of operations that would cause introduction into the RCS of coolant with boron concentration less than required to meet the boron concentration of LCO 3.9.1. As discussed above, an inoperable source range detector has no effect on the initiation or mitigation of a fuel handling accident. Suspending introduction of RCS coolant at less than the required boron concentration prevents a boron dilution incident. Required Action A.1 is revised to preclude positive reactivity additions, which adequately precludes potential unexpected positive reactivity changes. Suspension of all other core alterations in this circumstance is not required to meet analyses in the safety analysis report and that Required Action is removed.

L04 Detailed Description

1.3-2
1.3-5
1.3-6
3.8.5-1

Current TS Section 1.3, "Completion Times," Example 1.3-3 is revised to eliminate the Required Action A.1 and Required Action B.1 second Completion Times, and to replace the discussion regarding second Completion Times with a new discussion. The second Completion Times associated with current TS 3.8.5, “Distribution Systems – Operating,” Required Actions A.1, B.1, C.1, and D.1 are also deleted.

Technical Evaluation

NUREG-1431 generic change TSTF-439 revised TS 1.3, Completion Times, Example 1.3-3 and various TS Required Action Completion times to eliminate specific second Completion times. Currently, Example 1.3-3 discusses the situation where an LCO requires OPERABILITY of two systems with the possibility of entering the Condition for one inoperable system and before restoring the first system, the second system becomes inoperable. With the second system inoperable, the first system is restored to OPERABLE status. Before restoring the second system, the first system becomes inoperable again. Under this scenario, it would be theoretically possible to operate indefinitely without ever meeting the LCO if first and second subsystems alternated operability status.

In adopting TSTF-439 into Revision 3.1 of the NUREG-1431 the NRC Staff concluded that multiple continuous entries into Conditions, without meeting the LCO, is acceptable because these practices are controlled by licensee's configuration risk management programs, which were implemented to meet the requirements of the maintenance rule to assess and manage risk. The TS controls, coupled with the licensees' configuration risk management programs, provide adequate assurance against inappropriate use of Combinations of Conditions that result in a single contiguous occurrence of failing to meet the LCO.

Final Safety Analysis Report (FSAR) Chapter 17 describes implementation of the Operational Phase Reliability Assurance Activities (OPRAA), which appropriately addresses the NRC Staff’s evaluation and conclusion regarding licensee’s

configuration risk management programs. The VCSNS OPRAA includes implementation of the Maintenance Rule Program to meet the requirements of 10 CFR 50.65.

Accordingly, TS requirements, when considered with the regulatory processes discussed above, provide an equivalent or superior level of plant safety without the unnecessary complication of the TS by second Completion Times on some Specifications that are deleted with this change.

In addition, a requirement is being included in TS Section 1.3 to require administrative controls to limit the maximum time allowed for any combination of Conditions that result in a single contiguous occurrence of failing to meet the LCO. These administrative controls will consider plant risk and limit the maximum contiguous time of failing to meet the LCO. This TS requirement, when considered with the regulatory processes discussed above, provide an equivalent or superior level of plant safety without the unnecessary complication of the TS by second Completion Times on some Specifications.

Current TS 3.8.5 Required Actions A.1, B.1, C.1, and D.1 are the only uses of this second Completion Time to limit the maximum contiguous time of failing to meet the LCO, and are therefore also deleted with this change.

L05 **Detailed Description**

3.0-2
3.0-3
3.3.2-3
3.7-5-1
3.7.6-1
3.7.9-1
3.7.11-1
3.7.12-1
3.9.4-1
3.9.7-1

TS LCO 3.0.8 is eliminated. The following current references to LCO 3.0.8 are also eliminated:

- Current TS 3.3.2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation, Required Action K.1 Note (renumbered as TS 3.3.13, ESFAS Control Room Air Supply Radiation Instrumentation, Required Action D.1, as discussed in DOC A028);
- Current TS 3.7.5, Spent Fuel Pool Water Level, Actions Note;
- Current TS 3.7.6, Main Control Room Habitability System (VES), Actions Note;
- Current TS 3.7.9, Fuel Storage Pool Makeup Water Sources, Required Action A.1 Note;
- Current TS 3.7.11, Fuel Storage Pool Boron Concentration, Actions Note;
- Current TS 3.7.12, Spent Fuel Pool Storage, Actions Note;
- Current TS 3.9.4, Refueling Cavity Water Level, Actions Note; and
- Current TS 3.9.7, Decay Time, Actions Note (renumbered as TS 3.9.5, as discussed in DOC R2).

Technical Evaluation

Current TS LCO 3.0.8 applies in Modes 5 and 6 when the associated Actions are not met or an associated Action is not provided. In some cases, LCO 3.0.8 is explicitly excluded from applying by way of a Note. In conjunction with the change to eliminate LCO 3.0.8, these Notes are no longer necessary and are administratively eliminated.

When applicable, LCO 3.0.8 requires:

"... action shall be initiated within 1 hour to:

a. Restore inoperable equipment and

b. Monitor Safety System Shutdown Monitoring Trees parameters"

The actions provided in individual TS Actions fall into one or more of the following type of actions:

(1) Restore compliance with the LCO;

(2) Exit the Applicability; or

(3) Impose compensatory measures.

LCO 3.0.8.a imposes a “restore” action, but without a stated completion time. This action duplicates the “restore” action already imposed in various Mode 5 or 6 Specifications, and for these Specifications does not provide any additional safety benefit.

Where the remaining Specifications do not include a “restore” action, the intent of the requirement to make efforts to restore compliance are adequately imposed by 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, which requires (in part, with emphasis added) “Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified <u>and corrected</u>.” Furthermore, the LCO 3.0.8.a “restore” action is also adequately imposed by 10 CFR 50.36(c)(2), Limiting conditions for operation, subpart (i), which states (in part, with emphasis added): “When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications <u>until the condition can be met</u>.” Existing regulations require continued efforts to restore compliance with the LCO.

In conjunction with the continued requirements to restore compliance with the LCO, the Specifications that have only type 2 actions (exit the Applicability) and type 3 actions (impose compensatory measures) continue to impose those requirements. Efforts to exit the Applicability afford the same level of safety benefit as a “restore” action; i.e., either action will remove the noncompliance with the TS and would have allowed exiting LCO 3.0.8. Actions imposing only compensatory measures would allow continued operation in noncompliance with the LCO. Only failure to complete the compensatory action in the required Completion Time would result in entry into LCO 3.0.8. However, LCO 3.0.8 would not add any additional safety benefit. The compensatory actions would remain required by the individual Specifications, whereas LCO 3.0.8.b requires no action beyond “monitor.”

The LCO 3.0.8.b action to “Monitor Safety System Shutdown Monitoring Trees parameters,” is adequately addressed by the TS 5.4.1.b requirement to implement the emergency operating procedures that implement NUREG-0737 and NUREG-0737, Supplement 1, as stated in Generic Letter 82-33. The Shutdown Emergency Response Guidelines outlined in Final Safety Analysis Report (FSAR)

19E.3.3, are captured within the development of these emergency operating procedures. The monitoring of shutdown safety status trees that provides a systematic method of determining the safety status of the plant is an integral part of the operating procedures during shutdown operations. Therefore, the LCO 3.0.8.b monitoring requirement is redundant to monitoring required to comply with TS 5.4.1.b.

Additionally, since entry into LCO 3.0.8 reflects a condition prohibited by TS (similar to entry into LCO 3.0.3 for operating Modes), the intent of reporting required by 10 CFR 50.73(a)(2)(i)(B) would result in NRC notification by way of a Licensee Event Report.

Therefore, removing LCO 3.0.8 (and references to it) will not adversely impact public health and safety.

L06 Detailed Description

3.2.5-2 Current TS 3.2.5, "On-Line Power Distribution Monitoring System (OPDMS)-Monitored Parameters," SR 3.2.5.1 Frequency states:

> "24 hours with OPDMS alarms OPERABLE
>
> <u>OR</u>
>
> 12 hours with OPDMS alarms inoperable."

This is revised to require only “24 hours” as the Frequency.

Technical Evaluation

The On-line Power Distribution Monitoring System (OPDMS) for the AP1000 is an advanced core monitoring and support package. The OPDMS has the ability to continuously monitor core power distribution parameters. Two levels of alarms on power distribution parameters are provided to the operator. One serves as a warning before the three parameters excluding SDM exceed their values used as a base condition for the safety analysis. The other alarm indicates when the parameters have reached their limits.

Current SR 3.2.5.1 requires the operator to verify that the power distribution parameters are within their limits. This confirmation is a verification in addition to the automated checking performed by the OPDMS system. A 24 hour Surveillance interval provides assurance that the system is functioning properly and that the core limits are met. In addition to the SR 3.2.5.1 normal 24 hour Frequency, the TS also contains actions (in the form of an increased surveillance frequency) to be performed in the event of inoperable alarms. These actions are removed from the TS since the alarms themselves do not directly relate to the LCO limits or the monitoring capability of the OPDMS.

This response to inoperable alarms is not required to be in the TS to provide adequate protection of the public health and safety. This change is designated as a less restrictive change because a specific surveillance Frequency is being deleted.

L07 Detailed Description

3.3.1-1
3.3.1-5
3.3.1-6
3.3.1-12
3.3.1-14
3.3.1-15
3.4.4-1
3.4.4-2
3.4.5-1
3.4.8-1

Certain TS Required Actions requiring the reactor trip breakers (RTBs) to be opened are revised into two Required Actions. One Required Action states "initiate action to fully insert all rods," and the other Required Action states "place the Plant Control System in a condition incapable of rod withdrawal." The specific Required Actions revised are:

- Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation,"
  - Required Action B.2.2, "Open reactor trip breakers (RTBs)," for Functions 1, 15a, 20a, and 21a;
  - Required Action C.2, "Open RTBs," for Function 1;
  - Required Action N.2.2, "Open RTBs," for Functions 17 and 18;
  - Required Action O.2.2, "Open RTBs," for Functions 17 and 18;
  - Required Action P.2, "Open RTBs" for Functions 19, 20b, and 21b; and
  - Required Action Q.2, "Open RTBs," for Function 5
- Current TS 3.4.4, "RCS Loops,"
  - Required Action A.1, "Be in MODE 3 with the reactor trip breakers open;" and
  - Required Action B.1, "Open reactor trip breakers ;" and
- Current TS 3.4.5, "Pressurizer," Required Action A.2.1, "Be in MODE 3 with reactor trip breakers open."

TS Applicabilities associated with RTB position are being revised. Applicabilities of "With RTBs closed and Plant Control System capable of rod withdrawal" or "Whenever the reactor trip breakers are closed" are revised to state "With Plant Control System capable of rod withdrawal or one or more rods not fully inserted." Conversely, Applicabilities that include "RTBs open" are revised to address the condition of Plant Control System incapable of rod withdrawal and all rods fully inserted. The specific Applicabilities revised are:

- Current TS 3.3.1, Table 3.3.1-1, Footnote (a), "With Reactor Trip Breakers (RTBs) closed and Plant Control System capable of rod withdrawal," modifying the Applicability of Mode 3, 4, and 5 for Functions 1, 5, 17, 18, 19, 20a, 20b, 21a, and 21b;
- Current TS 3.4.4, RCS Loops, Applicability, "MODES 3, 4, and 5, whenever the reactor trip breakers are closed;" and
- Current TS 3.4.8, "Minimum RCS Flow," Applicability, "MODES 3, 4, and 5, whenever the reactor trip breakers are open and with unborated water sources not isolated from the RCS."

Current TS 3.4.4, Condition A Note reference to “Required Action A.1” is revised to "Required Actions” and Condition B Note reference to “Required Action B.1” is revised to “Required Actions.”

Technical Evaluation

Each of the Required Actions to open the RTBs is intended to assure that rods

cannot be withdrawn thereby eliminating the possibility for control rod related positive reactivity additions and associated heat input into the reactor coolant. Additionally, opening the RTBs would result in all rods being inserted. Therefore, replacing Required Actions to open RTBs with the two actions to “initiate action to fully insert all rods" and “place the Plant Control System in a condition incapable of rod withdrawal," maintains the intent of the existing requirement. This change replaces the specific method of precluding rod withdrawal and ensuring all rods are inserted while maintaining the requirement for establishing the plant conditions equivalent to opening RTBs. Since the revised Actions still assure rod withdrawal is precluded and all rods are inserted, this detail is not required to be in the TS to provide adequate protection of the public health and safety. Therefore, removal of this detail is acceptable.

This change (allowing for alternate options to preclude rod withdrawal and establish all rods inserted) is necessary to eliminate the potential for undesirable secondary effects of opening the reactor trip breakers. Opening the RTBs trips the plant P-4 interlock which, in the event of low Reactor Coolant System (RCS) temperature, can result in isolation of main feedwater to the steam generators.

To ensure that when the revised Required Actions are taken the unit is removed from the Mode of Applicability, conforming revision to the Applicabilities are made. The equivalent condition to the current Applicabilities that include “RTBs closed” is the condition of Plant Control System capable of rod withdrawal. However, since rods could have been withdrawn prior to making the Plant Control System incapable of rod withdrawal, an additional condition is included of “or one or more rods not fully inserted.” This also aligns with the Required Actions that require both “fully insert all rods" and “place the Plant Control System in a condition incapable of rod withdrawal." The equivalent condition to the current Applicabilities that include “RTBs open” is the condition of Plant Control System capable of rod withdrawal and all rods fully inserted.

Removing the specific method of precluding rod withdrawal and establishing all rods inserted, and defining this condition solely in terms of the RTB status, from the TS is acceptable because this type of information is not necessary to be included to provide adequate protection of public health and safety. The affected TS still retain requirements to assure that rod withdrawal is prohibited and all rods are inserted, when required. This change is designated as a less restrictive because one specific method for meeting the intended TS requirements is being removed from the TS, allowing alternate methods to establish the equivalent conditions.

The current TS 3.4.4 Condition A and Condition B Notes require completion of the only Required Action once the Condition is entered. With the changes described above, the current singular action becomes multiple actions. The revised Note imposes the same requirement to complete each of the new Required Actions. This is an administrative change to conform current requirements to the new presentation.

L08 Detailed Description

3.3.1-2 Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," Action D is revised to delete:

1. Required Action D.1.1:

   'Reduce THERMAL POWER to ≤ 75% RTP '

2. the optional Required Actions of D.2.1 and D.2.2

   'Place inoperable channel(s) in bypass – 6 hours

   AND

   NOTE: Only required to be performed when OPDMS is inoperable and the Power Range Neutron Flux input to QPTR is inoperable.

   Perform SR 3.2.4.2 – Once per 12 hours'

The result is, revised Action D matches current Action E, which allows applying current Action E to the Power Range Neutron Flux – High Setpoint Function and deleting Action D in its entirety.

Note that editorial renumbering and revised presentation for the new Actions is addressed in DOC A024.

Technical Evaluation

The actions provided in current TS 3.3.1 Required Action D.1.1 and D.2.2 are related to TS 3.2.4, Quadrant Power Tilt Ratio (QPTR), radial power distribution monitoring. The two Surveillances of TS 3.2.4 are provided with Notes defining the appropriate Surveillance when Power Range Neutron Flux channels may not be available for monitoring. These Surveillances and their Notes provide the appropriate restrictions in the event of inoperable Power Range Neutron Flux channels without reliance on duplicating those restrictions in the Actions of TS 3.3.1.

As stated in the Bases for this action, the requirement to reduce power to ≤ 75% is an alternate to monitoring QPTR every 12 hours in accordance with SR 3.2.4.2 (i.e., Required Action D.2.2 and as stated in SR 3.2.4.2). The current TS 3.3.1, Required Action D.2.2 Note and the TS 3.2.4 Applicability both state that this would only be required in the event On-line Power Distribution Monitoring System (OPDMS) is not monitoring parameters.

Furthermore, Power Range Neutron Flux channels could be inoperable for the RTS function yet continue to provide usable input for QPTR monitoring, in which case neither the power reduction nor performance of SR 3.2.4.2 would be necessary to provide adequate protection and monitoring.

Finally, if there were two inoperable Power Range Neutron Flux channels, Required Action D.2.1 would require both inoperable channels to be placed in bypass. The AP1000 design does not permit bypassing more than one channel. As such, this Required Action is inappropriate and could not be completed.

As such, the overly restrictive and inappropriate Required Actions are being

deleted since adequate compensatory measures already address the potential impact on radial power monitoring and the remaining actions are appropriate for compensatory and mitigative actions in the event the RTS function is degraded for the Power Range Neutron Flux function. Therefore, there is no significant adverse impact on the public health and safety.

This change is deemed a less restrictive change since Required Actions are being deleted.

L09 Detailed Description

3.3.1-4 Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," Table 3.3.1-1, Function 5, Source Range Neutron Flux High Setpoint, during Applicability of Mode 2 for one or two inoperable channels is revised from current TS 3.3.1, Action I, which states:

I.	One or two Source Range Neutron Flux channels inoperable.	I.1	Suspend operations involving positive reactivity additions.	Immediately

The revised Actions during Applicability of Mode 2 are new TS 3.3.2, RTS Source Range Instrumentation, Actions A, B, and C:

A.	One channel inoperable in MODE 2.	A.1	Place inoperable channel in bypass or trip.	2 hours
B.	Two channels inoperable in MODE 2.	B.1	Place one inoperable channel in bypass.	2 hours
		AND		
		B.2	Place one inoperable channel in trip.	2 hours
C.	Required Action and associated Completion Time of Condition A or B not met.	C.1	Suspend operations involving positive reactivity additions.	Immediately

Technical Evaluation

Current TS 3.3.1 Actions for one or two Source Range Neutron Flux High Setpoint channels in Mode 2 restrict power ascension with current Required Action I.1, “Suspend operations involving positive reactivity additions.” The change adding new TS 3.3.2 Actions A and B requires placing these inoperable channels in bypass and/or trip. Meeting these Required Actions allows continued operation and flexibility to continue power ascension. This is a less restrictive change.

As summarized in Final Safety Analysis Report (FSAR) Table 7.2-2, Reactor Trips,

each automatic RTS function is provided with 4 channels, with division trip logic of 2-out-of-four ("2/4") and similar bypass logic and capability. This bypass capability is also described in the TS Bases:

> "The use of four channels for protection functions is based on a minimum of two channels being required for a trip or actuation, one channel in test or bypass, and a single failure on the remaining channel. The signal selector algorithm in the Plant Control System (PLS) will function with only three channels. This includes two channels properly functioning and one channel having a single failure. For protection channels providing data to the control system, the fourth channel permits one channel to be in test or bypass. Minimum requirements for protection and control are achieved with only three channels OPERABLE. The fourth channel is provided to increase plant availability, and permits the plant to run for an indefinite time with a single channel out of service."

Furthermore, the RTS TS Bases for Function 5 specifically describe this capability for the Source Range Neutron Flux Function: This same discussion appears in other automatic RTS Function Bases.

> "Four channels are provided to permit one channel in trip or bypass indefinitely and still ensure no single random failure will disable this trip Function."

The requirement to bypass and/or trip one and two inoperable automatic channels is applicable to most other automatic channels as provided in current TS 3.3.1 Actions E, F, and K. These Actions have the same provisions for tripping and/or bypassing inoperable channels. Currently, with one or two channels inoperable, one affected channel must be placed in a bypass or trip condition. If one channel is bypassed, the logic becomes two-out-of-three, while still meeting the single failure criterion. (A failure in one of the three remaining channels will not prevent the protective function.) If one channel is tripped, the logic becomes one-out-of-three, while still meeting the single failure criterion. (A failure in one of the three remaining channels will not prevent the protective function.) For two inoperable channels, with one channel bypassed and one channel tripped, the logic becomes one-out-of-two, while still meeting the single failure criterion.

Therefore the change to provide Actions to bypass or trip one inoperable channel and bypass one channel and trip one channel for two inoperable Source Range Neutron Flux channels is consistent with the design and consistent with the intent as described in the TS Bases for these Functions. Based on the Completion Times for Action F, applicable to Intermediate Range Neutron Flux channels, bypassing and/or tripping within 2 hours is provided for the new TS 3.3.2, Actions A and B. Since RTS trip capability remains with one or two Source Range channels inoperable, the additional 2 hours allowed by Actions A and B do not have any significant impact on safety. The current action suspending all operations involving positive reactivity additions unless all four Source Range channels are Operable is overly restrictive given RTS trip capability remains and that the safety analyses do not take credit for the Source Range Neutron Flux trip Function (as stated in the Bases).

The change results in closer alignment with Actions for other automatic RTS

Functions. The actions continue to assure operation within the assumptions of the safety analysis, i.e., preserving single-failure criterion for indefinite operations. As such there is no adverse impact to public health and safety. This change is designated as a less restrictive change because certain actions for inoperability of Source Range Neutron Flux channels in Mode 2 are made less restrictive.

L10 Detailed Description

3.1.8-1
3.3.1-5
3.3.1-10
3.3.1-14
3.3.2-2
3.3.2-3
3.3.2-23

TS 3.1.8 “PHYSICS TESTS Exceptions – MODE 2,” is revised to delete the listing of current Function 16.b for LCO 3.3.1, and correct the title for LCO 3.3.1 to “Reactor Trip System (RTS) Instrumentation.”

Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," Table 3.3.1-1, Function 16, Reactor Trip System Interlocks is removed from TS. Current TS 3.3.1 Action M is deleted. Current SR 3.3.1.9 Surveillance Note is deleted.

Current TS 3.3.2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation, Table 3.3.2-1, Function 18, ESFAS Interlocks, is removed, with the exception of Table 3.3.2-1, Function 18.b, Reactor Trip, P-4. Current TS 3.3.2 Action J is deleted.

Technical Evaluation

Reactor Trip System interlocks are provided to ensure reactor trips are in the correct configuration for the current plant status. They back up operator actions to ensure protection system Functions are not blocked during plant conditions under which the safety analysis assumes the Functions are Operable. Additionally, several interlocks are included as part of the ESFAS. These interlocks permit the operator to block some signals, automatically enable other signals, prevent some actions from occurring, and cause other actions to occur. The interlock Functions backup manual actions to ensure bypassable Functions are in operation under the conditions assumed in the safety analyses.

The interlocks, as separate RTS and ESFAS Functions (except for Table 3.3.2-1, Function 18.b, Reactor Trip, P-4; refer to new TS 3.3.12, "Engineered Safety Feature Actuation System (ESFAS) Reactor Trip Initiation," for requirements related to retaining the Reactor Trip, P-4 “interlock” as an ESFAS actuation Function), are removed from the TS and the associated Actions are deleted. Interlock Operability is adequately addressed by each related Function’s requirement to be Operable and the requirement for actuation logic operability. For these RTS trip and ESFAS actuation Functions to be Operable, the associated RTS and ESFAS interlock Functions would have to be in the required state as a support feature for operability. These RTS and ESFAS interlock functions do not directly trip the reactor or actuate ESFAS, and as such are removed from the actuation instrumentation listing in TS. The role of the interlocks, and their support for the operability of RTS trip and ESFAS actuation Functions, are described in the TS Bases, as well as in Final Safety Analysis Report (FSAR) Chapter 7, Instrumentation and Controls.

Furthermore, each RTS trip and ESFAS actuation Function is required operable during the stated TS Applicability. The Applicability for certain trip or actuation

Functions is based on transitioning above or below an interlock; while other Functions are not directly supported by an interlock. For Functions supported by an interlock, while operating within the TS required Applicability for that Function, its associated supporting interlock is not required to automatically change state. The interlock status must be established in conjunction with assuring supported Function's operability prior to entering the required Applicability. In addition, LCO 3.0.4 requires the operators to ensure RTS trip and ESFAS operability prior to entering their Applicability. These TS requirements remain in effect and impose the necessary operability requirements related to the removed interlock Functions. As such, interlocks are adequately addressed by each related Function's requirement to be operable and the requirement for actuation logic operability.

Current TS 3.1.8 lists Functions of LCO 3.3.1 where the number of required channels is allowed to be reduced to three. Function 16.b is no longer included since this Function is removed as described above.

Current SR 3.3.1.9 Surveillance Note provides details of performing a Channel Operational Test (COT) and is deleted. The requirement for verification that interlocks P-6 and P-10 are in their required state for existing unit conditions is unchanged and is appropriately summarized in the Bases, as referred to below.

If the interlock is not automatically functioning as designed, the condition is entered into the Corrective Action Program and appropriate operability evaluations performed for the affected Function(s), which would evaluate potential operability impact on individual instrument Function channels and/or the coincident logic subsystem channel. Adverse impacts to operability could be evaluated to affect individual instrumentation channels, or may be evaluated to impact the divisional coincident logic. In either outcome, the appropriate actions are provided by the affected supported feature(s).

Certain Actions being deleted for inoperable interlock functions (current TS 3.3.1 Required Action M.1 for RTS interlocks and current TS 3.3.2 Required Action J.1 for ESFAS interlocks) provide an optional allowance: "Verify the interlocks are in the required state for the existing plant conditions" within "1 hour." This verification is essentially the operability evaluation for the supported functions. If interlocks are not in the required state for the existing plant conditions, then the affected supported Functions would be inoperable and their Actions would apply. The current 1 hour allowance provides time for the operator to manually place the interlock in the state that accomplishes the interlock function necessary to support RTS and ESFAS actuation Function operability. Once this Required Action is completed, unlimited operation is allowed. As such, the provision provides an acceptable alternative to reliance on the automatic interlock function – allowing the operator to manually assure the required interlock state. With this action deleted, the determination of supported function operability is immediate and the actions for any inoperable supported Functions are immediately entered; thereby making this portion of the change more restrictive.

Instrument channel Functions with interlocks implicitly required to support the Function's operability, are also addressed by the Channel Operational Test (COT) and Channel Calibration Surveillance Requirements. Actuation logic with interlocks implicitly required to support operability of the logic is also addressed by

the Actuation Logic Test Surveillance Requirements. The applicable COT, Channel Calibration, and Actuation Logic Test Bases will include the following discussion supporting this change ("CHANNEL CALIBRATION" is replaced with "COT" or "ACTUATION LOGIC TEST" as appropriate):

> "Interlocks implicitly required to support the Function's OPERABILITY are also addressed by this CHANNEL CALIBRATION. This portion of the CHANNEL CALIBRATION ensures the associated Function is not bypassed when required to be enabled. This can be accomplished by ensuring the interlocks are calibrated properly in accordance with the SP. If the interlock is not automatically functioning as designed, the condition is entered into the Corrective Action Program and appropriate OPERABILITY evaluations performed for the affected Function. The affected Function's OPERABILITY can be met if the interlock is manually enforced to properly enable the affected Function. When an interlock is not supporting the associated Function's OPERABILITY at the existing plant conditions, the affected Function's channels must be declared inoperable and appropriate ACTIONS taken."

Related actions being deleted (current TS 3.3.1 Action M.2.1, M.2.2, and M.3 for RTS interlocks and current TS 3.3.2 Action J.2.1 and J.2.2 for ESFAS interlocks; which are to trip and/or bypass inoperable channels) also have the additional 1-hour greater allowance than specified for associated inoperable actuation Functions. Therefore, removal of these actions is also a more restrictive portion of the change.

The remaining actions referenced for current TS interlocks supporting ESFAS actuation Functions being removed (i.e., TS 3.3.2, Actions D, L, M, N, Y, and BB) are equivalent to, or more restrictive than the existing actions for inoperable supported ESFAS Functions as detailed below.

- <u>Current TS 3.3.2, Reactor Trip Breaker Open, P-3: Actions D and M</u>

  The Reactor Trip Breaker Open, P-3 interlock is provided to permit the block of automatic Safeguards Actuation after a predetermined time interval following automatic Safeguards Actuation. The P-3 interlock supports operability of all automatic Safeguards Actuations at the Engineered Safety Features (ESF) coincident logic subsystem, i.e., current Table 3.3.2-1, Function 25. The current Actions specified for Function 25 include Actions D and O. The first Action (Action D) is consistent with the Actions for inoperable P-3. The second Action (Action O) requires completing a plant shutdown to Mode 5, while the Actions for inoperable P-3 (Action M) only require completion of the plant shutdown to Mode 4. Therefore, deleting the P-3 Function results in equivalent or more restrictive Actions.

- <u>Intermediate Range Neutron Flux, P-6: Action L</u>

  The Intermediate Range Neutron Flux, P-6 interlock is actuated when the respective NIS intermediate range channel increases to approximately one decade above the channel lower range limit. The source range flux doubling signal that actuates to block boron dilution may be manually blocked to permit plant startup and normal power operation. It is

automatically reinstated when reactor power is decreased below the P-6 power level during shutdown. Failure of the P-6 interlock to support operability of the source range flux doubling instrument channels could impact operability of the coincident logic subsystem, i.e., current Table 3.3.2-1, Function 25. The current Actions specified for Function 25 include Actions D and O. The first Action (Action D) is more restrictive than Action J as discussed previously. The second Action (Action O) requires completing a plant shutdown to Mode 5, while the Actions for inoperable P-6 (Action L) only require completion of the plant shutdown to Mode 3. Therefore, deleting the P-6 Function results in equivalent or more restrictive Actions.

- Pressurizer Pressure, P-11: Action M

  The Pressurizer Pressure, P-11 interlock permits a normal unit cooldown and depressurization without Safeguards Actuation or main steam line and feedwater isolation. The P-11 interlock supports the following ESFAS actuation Functions:

  - Containment Pressure – High 2;
  - Containment Radioactivity – High 2;
  - Pressurizer Pressure – Low;
  - RCS Cold Leg Temperature T_{cold} – Low;
  - Reactor Coolant Average Temperature (T_{avg}) – Low 1;
  - Reactor Coolant Average Temperature (T_{avg}) – Low 2;
  - Steam Line Pressure – Low; and
  - Steam Line Pressure – Negative Rate – High.

  Failure of the P-11 interlock to support operability of these instrument channels could impact operability of the coincident logic subsystem, i.e., current Table 3.3.2-1, Function 25. The current Actions specified for Function 25 include Actions D and O. The first Action (Action D) is more restrictive than Action J as discussed previously. The second Action (Action O) requires completing a plant shutdown to Mode 5, while the Actions for inoperable P-11 (Action M) only require completion of the plant shutdown to Mode 4. Therefore, deleting the P-11 Function results in equivalent or more restrictive Actions.

- Pressurizer Level, P-12: Actions M, BB, and Y

  The P-12 interlock supports the following ESFAS actuation Functions:

  - Pressurizer Water Level – Low 1 actuation of auxiliary spray and purification line isolation (Applicable in Modes 1, 2, 3, and portion of Mode 4);
  - Pressurizer Water Level – Low 2 actuation of reactor coolant pump trip and core makeup tank actuation (Applicable in Modes 1, 2, 3, and portion of Mode 4);

- Hot Leg Level - Low 1 actuation of CVS Letdown Isolation (Applicable in portions of Modes 4, 5, and 6); and
- Hot Leg Loop 1 Level - Low 2 and Hot Leg Loop 2 Level - Low 2 actuation of ADS Stage 4 (Applicable in portions of Modes 4, 5, and 6).

Failure of the P-12 Function to support operability of these instrument channels could impact operability of the coincident logic subsystem, i.e., current Table 3.3.2-1, Function 25. The current Actions specified for Function 25 in Modes 1, 2, 3, and 4, include Actions D and O. The first Action (Action D) is more restrictive than Action J as discussed previously. The second Action (Action O) requires completing a plant shutdown to Mode 5. This is more restrictive than the Actions for inoperable P-12. For inoperable P-12 in Modes 1, 2, and 3, Action M requires completion of the plant shutdown to Mode 4. Once in Mode 4, the actions for inoperable P-12 transition to Actions "BB,Y," which allow for continued operation in Mode 4 with the inoperable channel bypassed (Action BB) or alternately, the suspension of positive reactivity additions and completing a plant shutdown to Mode 5 (Action Y). While the Completion Time for achieving Mode 5 may be longer in certain cases for the current Function 25 Action (e.g., not bypassing a channel as allowed in Action BB), that less restrictive aspect is offset by not allowing continued operation if the channel is bypassed. In removing the interlocks and relying on the current actions for inoperability of the coincident logic subsystem, appropriately conservative Actions result.

The current Actions specified for Function 25 in Modes 5 and 6 include Actions G and W. The first Action (Action G) requires restoration to operable. This is more restrictive than the first Action for inoperable P-12 in Mode 5 and 6 (Action BB), which allows for continued operation in Mode 5 or Mode 6 with the inoperable channel bypassed. The second Action (Action W) in Mode 5 requires establishing ≥ 20% pressurizer level and for Mode 6 establishing water level ≥ 23 feet above the top of the reactor vessel flange; similar to the Actions for inoperable P-12 in Modes 5 and 6 (Action Y).

Therefore, deleting the P-12 Function results in appropriately conservative Actions.

- <u>RCS Pressure, P-19: Action N</u>

The P-19 interlock supports the following ESFAS actuation Functions:

- Pressurizer Water Level – High 2; and
- Pressurizer Water Level – High 3.

Failure of the P-19 interlock to support operability of these instrument channels could impact operability of the coincident logic subsystem, i.e., current Table 3.3.2-1, Function 25. The current Actions specified for Function 25 include Actions D and O. The first Action (Action D) is more restrictive than Action J as discussed previously. The second Action (Action O) requires completing a plant shutdown to Mode 5, while the Actions for inoperable P-19 (Action N) only require completion of the plant

shutdown to Mode 4 with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS). Therefore, deleting the P-19 Function results in equivalent or more restrictive Actions.

While the effect of this change results in certain more restrictive Actions, this change is deemed a less restrictive change since explicit requirements related to the RTS and ESFAS interlocks and explicit surveillance requirements are being removed from TS, which results in implicit requirements associated with Operability and Channel Calibrations.

L11 Detailed Description

3.3.1-6
3.3.1-12

Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," is revised to delete:

- Current Table 3.3.1-1, Function 5, Source Range Neutron Flux High Setpoint, Third row for that Function including Applicability set "$3^{(e)}$,$4^{(e)}$,$5^{(e)}$" and associated references to Required Channel, Condition, and SRs;
- Current Table 3.3.1-1, Footnote (e); and
- Current Action R.

Technical Evaluation

The Source Range Neutron Flux Function in Modes 3, 4, and 5 with RTBs open, is not related to the Reactor Trip System, but involves indication only as stated in the current Applicability Footnote (e), and only requires one channel to be providing indication. The associated Bases also state that in Mode 3, 4, or 5 with the RTBs open, the LCO does not require the Source Range Neutron Flux channels for reactor trip functions to be Operable. As such, this requirement is inappropriately placed in the Specification requiring Reactor Trip System operability.

Source Range Neutron Flux channels are also required to be Operable by current TS 3.3.2, Engineered Safeguards Actuation System (ESFAS) Instrumentation, Table 3.3.2-1, Function 15a, Boron Dilution Block - Source Range Neutron Flux Doubling. This Function remains Applicable, requiring 4 channels, during the specified condition being deleted in TS 3.3.1. Furthermore, the SRs for this Function also encompass the Channel Check and Channel Calibration Surveillances being deleted from current TS 3.3.1 for Source Range Neutron Flux.

Current TS 3.3.1, Action R applies solely for inoperability of the one required Source Range Neutron Flux indication channel (i.e., all four Source Range Neutron Monitoring channels inoperable). In the unlikely event that all four channels were inoperable, the requirements associated with the Boron Dilution Block - Source Range Neutron Flux Doubling channels, are appropriate to provide the necessary protection. Changes to these Actions are addressed in changes to the current TS 3.3.2, Table 3.3.2-1, Function 15a, Boron Dilution Block - Source Range Neutron Flux Doubling function, and are reflected in the revised TS 3.3.8, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation." The revised TS 3.3.8 actions direct entering applicable actions for inoperable valves associated with boron dilution flow paths, i.e., TS 3.1.9, Chemical and Volume

Control System (CVS) Demineralized Water Isolation Valves and Makeup Line Isolation Valves. TS 3.1.9, Action B would apply to this condition (i.e., all required valves would be considered inoperable) and requires isolation of the affected flow paths within 1 hour, consistent with current TS 3.3.1, Required Action R.2. The potential for an uncontrolled boron dilution accident is eliminated by isolating all unborated water sources as required by this action. This change eliminates current Required Action R.1 (suspend operations involving positive reactivity additions) and R.3 (perform Shutdown Margin verifications); however, with the RTBs open and potential boron dilution paths isolated unit safety is adequately maintained without these additional required actions.

This change is consistent with changes made in TSTF-135, "3.3 - RPS and ESFAS Instrumentation," Revision 3, and as reflected in NUREG-1431.

This less restrictive change results in closer alignment with NUREG-1431 Standard TS presentation of Source Range Neutron Flux instrumentation. The actions continue to assure operation within the assumptions of the safety analysis. As such there is no adverse impact to public health and safety. This change is designated as a less restrictive change because certain actions for inoperability of all four source range channels are made less restrictive.

L12 Detailed Description

3.3.2-4 through 3.3.2-7 3.3.2-9 3.3.2-10 3.3.2-16 3.3.2-17 3.3.2-18 3.3.2-21 3.3.2-22 3.3.2-23 3.3.2-26

Current TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Actions related to Functions that result in valve isolation actuations are revised for current Actions P, Q, R, S, T, and Z, as they apply to following current Table 3.3.2-1 Functions:

- Function 4, Steam Line Isolation;
- Function 6, Main Feedwater Control Valve Isolation;
- Function 7, Main Feedwater Pump Trip and Valve Isolation;
- Function 8, Startup Feedwater Isolation;
- Function 14, SG Blowdown Isolation;
- Function 15, Boron Dilution Block;
- Function 16, Chemical Volume and Control System Makeup Isolation;
- Function 17, Normal Residual Heat Removal System Isolation;
- Function 19, Containment Air Filtration System Isolation; and
- Function 30, Component Cooling Water System Containment Isolation Valve Closure.

These Actions are revised to "Declare affected isolation valve(s) inoperable" "Immediately" as provided in:

- New TS 3.3.8, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Required Action I.1 and Required Action O.1;
- New TS 3.3.9, "Engineered Safety Feature Actuation System (ESFAS) Manual Initiation," Required Action F.1.

Current Table 3.3.2-1 Applicability modifier Footnote "(e) Not applicable for valve isolation Functions whose associated flow path is isolated" is deleted and applies to current Functions:

- Function 6, Main Feedwater Control Valve Isolation;
- Function 7, Main Feedwater Pump Trip and Valve Isolation;
- Function 14, SG Blowdown Isolation;
- Function 15, Boron Dilution Block;
- Function 16, Chemical Volume and Control System Makeup Isolation; and
- Function 17, Normal Residual Heat Removal System Isolation.

Current Table 3.3.2-1 Applicability modifier Footnote "(h) Not applicable if all MSIVs are closed" is deleted and applies to current Function:

- Function 4, Steam Line Isolation.

Current Table 3.3.2-1 Applicability modifier Footnote "(i) Not applicable when the startup feedwater flow paths are isolated" is deleted and applies to current Function:

- Function 8, Startup Feedwater Isolation.

Technical Evaluation

Current TS 3.3.2 Actions related to Functions that result in valve isolation actuations have Actions for inoperable instrumentation channels that vary in consistency. Functions that provide the Applicability modifier Footnotes that allow isolation of the affected valve(s) and exiting the Applicability (i.e., (e), (h), and (i)) are often associated with Actions (i.e., P, R, S, and T) that retain periodic verification of the isolated status, which would no longer be applicable. Some current Required Actions (i.e., P.2.1, Q.1, Z.1, and AA.1.2.1) provide a specific list of acceptable isolation devices while other Required Actions (i.e., R.2.1.1 and S.2.1.2) simply assure the isolated condition is established. Action T uniquely allows either a simple requirement of flow path isolation and periodic verification of the isolated condition (Required Actions T.1.1 and T.1.2.2), or an initial simple isolation condition followed later by requiring one of a specific list of acceptable isolation devices with no periodic verification (Required Actions T.1.1 and T.1.2.1).

Additionally, Actions Q, R, S, T, and Z (i.e., each Action being revised with the exception of Action P) have optional default Required Actions for compensatory measures (e.g., unit shutdown) that may be elected in lieu of any requirement to isolate flowpaths.

These nuances result in increased complexity and introduce an increased potential for confusion and misapplication. Since each of these instrumentation functions support Operability of the actuated valves, the impact of instrumentation inoperability should be consistent with Actions for the inoperability of the actuated supported system. The simplest approach to achieve this desired result is to allow the supported system Actions (i.e., for inoperable valves) to dictate the required measures. Therefore, each of the instrumentation Function Actions associated with this change is revised to "Declare affected isolation valve(s) inoperable." This approach is in accordance with LCO 3.0.6, which states:

> "When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required

Actions shall be entered in accordance with LCO 3.0.2."

In conjunction with this change to the Actions, the Applicabilities for the associated Functions are changed to delete Footnotes that allow exiting the Applicability once the flowpath is isolated (i.e., (e), (h), and (i)). This is consistent with changes being made to the Applicability of the various TS for the valves that these Functions actuate. The Applicability and related Actions for these valve and associated system Specifications are being revised as discussed in DOC M15. Changing these Applicabilities are more restrictive in that they maintain tracking of the inoperability and Action compliance rather than allowing exiting the Applicability once affected flow paths are isolated. An additional impact of deleting the Footnote (i) Applicability for current Function 8.d (which leaves Function 8.d with an Applicability of Modes 1, 2, 3, and 4) is to carry that more restrictive Applicability to the “Coincident with Reactor Trip (P-4)” Function (i.e., current Function 18.b, being reformatted as new TS 3.3.12 as discussed in DOC A028). This will also result in a more restrictive Required Action to exit the more restrictive Applicability as discussed in DOC A028.

In comparing the current TS 3.3.2 Actions for an inoperable instrumentation Function, against the Actions that result from this change (i.e., the Actions for the associated inoperable valves that the Function actuates), certain actions are less restrictive while others are more restrictive. While there are more and less restrictive impacts, the collective differences are not deemed significant. The less restrictive impacts are acceptable based on the fact that the new actions are the appropriate actions for the actuated equipment. Since TS 3.3.2 Actions apply solely to the instrumentation, assuming that the actuated valve(s) are otherwise Operable, there is less of an impact on safety with instrumentation only inoperability than with the valve(s) being incapable of performing the safety function. With valves remaining Operable, a means to effect valve closure (e.g., other signals, remote manual capabilities, fail-safe designs) would potentially be available. As such, the actions provided in the instrumentation Specification should not be more restrictive than the Actions for the actuated components. This change results in no adverse impact to public health and safety.

The impact of these changes for the current TS 3.3.2 instrumentation Functions are discussed in detail below.

<u>Function 4, Steam Line Isolation</u>

Current TS 3.3.2, Action S applies for inoperabilities of the Manual actuation for Steam Line Isolation. The valves isolated for this Function include main steam isolation valves, turbine stop and control valves, turbine bypass valves, and moisture separator reheater 2nd stage steam isolation valves. These valves are addressed in TS 3.7.2, which is being editorially renamed “Main Steam Line Flow Path Isolation Valves” (refer to DOC A094 for discussion of this renaming). Certain Actions imposed in new TS 3.7.2 Actions (as changed by DOC M11 and DOC M15) are less restrictive than current TS 3.3.2 Action S as a result of New TS 3.3.9, Action F declaring affected isolation valve(s) inoperable. Both current and new Required Actions require placing the unit in Mode 3, placing the unit in Mode 4 with Normal Residual Heat Removal System (RNS) in service, flow path isolation, and placing the unit in Mode 5. However, TS 3.7.2 additionally requires

placing the unit in Mode 2. A comparison of the Completion times associated with each of these Required Actions is provided below:

Required Unit Condition	New TS 3.7.2 Cumulative Hours	Current TS 3.3.2, Action S Hours
Mode 2	6 (Action C)	NA
Isolate Flow Path	14 (Action C+D)	30
Mode 3	20 (Action C+D+F)	6
Mode 4 RNS in service	38 (Action C+D+F)	24
Mode 5	50 (Action C+D+F)	42

Additionally, current TS 3.3.2, Action M applies for inoperabilities of the Steam Line Pressure – Negative Rate – High. While the current Action M does not explicitly provide for isolation of the affected penetrations, the current Applicability for this Function includes footnote (h), which implicitly allows isolation and exiting the Applicability (implied within the 12 hours allowed by Required Action M.2). As such, new Action I is also applied to this Function. Since this Function is only Applicable in Mode 3 below the P-11 interlock, only current Required Action M.2 to be in Mode 4 in 12 hours has bearing. New Required Actions require flow path isolation and placing the unit in Mode 4. A comparison of the Completion times associated with each of these Required Actions is provided below:

Required Unit Condition	New TS 3.7.2 Cumulative Hours	Current TS 3.3.2, Action M Hours
Isolate Flow Path	8 (Action D)	12
Mode 4 RNS in service	32 (Action D+F)	12

<u>Function 6, Main Feedwater Control Valve Isolation, and</u>
<u>Function 7, Main Feedwater Pump Trip and Valve Isolation</u>

Current TS 3.3.2, Action R applies for inoperabilities of the SG Narrow Range Water Level – High 2 for the Functions that isolate main feedwater isolation valves (MFIVs) and main feedwater control valves (MFCVs). These valves are addressed in TS 3.7.3, MFIVs and MFCVs. Only new TS 3.7.3 Required Action to be in Mode 4 with RNS in service is less restrictive than current TS 3.3.2 Action R as a result of New TS 3.3.8, Action I declaring affected isolation valve(s) inoperable. Both current and new Required Actions (as changed by DOC M11 and DOC M15) require placing the unit in Mode 3, placing the unit in Mode 4 with RNS in service, flow path isolation, and placing the unit in Mode 5. A comparison of the Completion times associated with each of these Required Actions is provided below:

Required Unit Condition	New TS 3.7.3 Cumulative Hours	Current TS 3.3.2, Action R Hours
Isolate Flow Path	8 (Action B)	12
Mode 3 (Note 1)	14 (Action B+C)	6
Mode 4 RNS in service	32 (Action B+C)	30
Mode 5	44 (Action B+C)	Not Required

Note 1: Required Action to be in Mode 3 within 6 hours is also retained for Modes 1 and 2 in new TS 3.3.8 Action D consistent with current TS 3.3.2, Required Action R.1.

Current TS 3.3.2, Action S applies for inoperabilities of the Manual actuation for Functions that isolate MFIVs and MFCVs. Certain Actions imposed in new TS 3.7.3 Actions (as changed by DOC M11 and DOC M15) are less restrictive than current TS 3.3.2 Action S as a result of New TS 3.3.9, Action F declaring affected isolation valve(s) inoperable. Both current and new Required Actions require placing the unit in Mode 3, placing the unit in Mode 4 with Normal Residual Heat Removal System (RNS) in service, flow path isolation, and placing the unit in Mode 5. A comparison of the Completion times associated with each of these Required Actions is provided below:

Required Unit Condition	New TS 3.7.3 Cumulative Hours	Current TS 3.3.2, Action S Hours
Isolate Flow Path	8 (Action B)	30
Mode 3	14 (Action B+C)	6
Mode 4 RNS in service	32 (Action B+C)	24
Mode 5	44 (Action B+C)	42

Function 8, Startup Feedwater Isolation

Current TS 3.3.2, Action S applies for inoperabilities of SG Narrow Range Water Level – High 2 for Functions that isolate startup feedwater flowpaths. The valves isolated for this Function include startup feedwater control valves and startup feedwater isolation valves. These valves are addressed in TS 3.7.7. Certain Actions imposed in new TS 3.7.7 Actions (as changed by DOC M11 and DOC M15) are less restrictive than current TS 3.3.2 Action S as a result of new TS 3.3.9, Action F declaring affected isolation valve(s) inoperable. Both current and new Required Actions require placing the unit in Mode 3, placing the unit in Mode 4 with Normal Residual Heat Removal System (RNS) in service, flow path isolation, and placing the unit in Mode 5. A comparison of the Completion times

associated with each of these Required Actions is provided below:

Required Unit Condition	New TS 3.7.7 Cumulative Hours	Current TS 3.3.2, Action S Hours
Isolate Flow Path	8 (Action B)	30
Mode 3	14 (Action B+C)	6
Mode 4 RNS in service	32 (Action B+C)	24
Mode 5	44 (Action B+C)	42

Function 14, SG Blowdown Isolation

Current TS 3.3.2, Action R applies for inoperabilities of the SG Narrow Range Water Level – Low for the Functions that isolate SG blowdown. These valves are addressed in TS 3.7.10, SG Isolation Valves. Certain TS 3.7.10 Required Actions are less restrictive than current TS 3.3.2 Action R as a result of New TS 3.3.8, Action I declaring affected isolation valve(s) inoperable. Both current and new Required Actions (as changed by DOC M11 and DOC M15) require placing the unit in Mode 3, placing the unit in Mode 4 with RNS in service, flow path isolation, and placing the unit in Mode 5. A comparison of the Completion times associated with each of these Required Actions is provided below:

Required Unit Condition	New TS 3.7.10 Cumulative Hours	Current TS 3.3.2, Action R Hours
Isolate Flow Path	8 (Action C or D)	12
Mode 3	14 (Action C/D+E)	6
Mode 4 RNS in service	32 (Action C/D+E)	30
Mode 5	44 (Action C/D+E)	Not Required

Function 15, Source Range Neutron Flux Doubling

Current TS 3.3.2, Action T applies in Modes 2, 3, and 4 for inoperabilities of the Source Range Neutron Flux Doubling Function that isolates demineralized water isolation valves and the makeup line isolation valves in the Chemical and Volume Control System (CVS). These valves are addressed in TS 3.1.9, CVS Demineralized Water Isolation Valves and Makeup Line Isolation Valves. As shown below, TS 3.1.9 Required Actions are more restrictive than current TS 3.3.2 Action T as a result of New TS 3.3.8, Action I declaring affected isolation valve(s) inoperable.

Required Unit Condition	New TS 3.1.9 Cumulative Hours	Current TS 3.3.2, Action T Hours
Isolate Flow Path	1 (Action B)	6 (Note 2)
Mode 3 (Note 3)	8 (LCO 3.0.3)	12
Mode 5 (Note 3)	38 (LCO 3.0.3)	42

Note 2: Current Required Action T.1.1 requires flow path isolation within 6 hours. Additionally, current Required Action T.1.2.1 imposes specific isolation provisions or periodic verification within 7 days. TS 3.1.9 Action B imposes specific isolation provisions within 1 hour, a more restrictive change.

Note 3: TS 3.1.9 provides no default action if affected flow paths are not isolated. As such, if the isolation were not accomplished within the required time, LCO 3.0.3 would apply. Times listed for TS 3.1.9 for Mode 3 and Mode 5 combine TS 3.1.9 Action B and LCO 3.0.3 times.

Current TS 3.3.2, Action P applies in Mode 5 for inoperabilities of the Source Range Neutron Flux Doubling Function that isolates demineralized water isolation valves and the makeup line isolation valves in the Chemical and Volume Control System (CVS). These valves are addressed in TS 3.1.9, CVS Demineralized Water Isolation Valves and Makeup Line Isolation Valves. As shown below, TS 3.1.9 Required Actions are more restrictive than current TS 3.3.2 Action P as a result of New TS 3.3.8, Action I declaring affected isolation valve(s) inoperable.

Required Unit Condition	New TS 3.1.9 Cumulative Hours	Current TS 3.3.2, Action P Hours
Isolate Flow Path	1 (Action B)	24 (Note 4)

Note 4: Current Required Action P.1 requires flow path isolation within 24 hours. TS 3.1.9 Action B imposes specific isolation provisions within 1 hour, a more restrictive change. The current Required Action P.2.2 periodic verification within 7 days is moot since the current Applicability for Source Range Neutron Flux Doubling Function in Mode 5 is exited once the flowpath is isolated.

Function 16, Chemical Volume and Control System Makeup Isolation

Current TS 3.3.2, Action R applies for inoperabilities of the SG Narrow Range Water Level (High and –High 2) as well as for Manual Functions that isolate CVS makeup. These valves are addressed in TS 3.1.9, CVS Demineralized Water Isolation Valves and Makeup Line Isolation Valves. Certain TS 3.1.9 Required Actions are less restrictive than current TS 3.3.2 Action R as a result of New TS 3.3.8, Action I declaring affected isolation valve(s) inoperable. A comparison of

these Required Actions is provided below:

Required Unit Condition	New TS 3.1.9 Cumulative Hours	Current TS 3.3.2, Action R Hours
Isolate Flow Path	1 (Action B)	12
Mode 3 (Note 3)	8 (LCO 3.0.3)	6
Mode 4 (Note 3)	14 (LCO 3.0.3)	- na -
Mode 4 RNS in service	- na -	30
Mode 5 (Note 3)	38 (LCO 3.0.3)	Not Required

Note 3: TS 3.1.9 provides no default action if affected flow paths are not isolated. As such, if the isolation were not accomplished within the required time, LCO 3.0.3 would apply. Times listed for TS 3.1.9 for Modes 3, 4, and 5 combine TS 3.1.9 Action B and LCO 3.0.3 times.

Current TS 3.3.2, Action T applies for inoperabilities of the Pressurizer Water Level – High 2 Function that isolates demineralized water isolation valves and the makeup line isolation valves in the Chemical and Volume Control System (CVS). These valves are addressed in TS 3.1.9, CVS Demineralized Water Isolation Valves and Makeup Line Isolation Valves. As shown below, TS 3.1.9 Required Actions are more restrictive than current TS 3.3.2 Action T as a result of New TS 3.3.8, Action I declaring affected isolation valve(s) inoperable.

Required Unit Condition	New TS 3.1.9 Cumulative Hours	Current TS 3.3.2, Action T Hours
Isolate Flow Path	1 (Action B)	6 (Note 2)
Mode 3 (Note 3)	8 (LCO 3.0.3)	12
Mode 5 (Note 3)	38 (LCO 3.0.3)	42

Note 2: Current Required Action T.1.1 requires flow path isolation within 6 hours. Additionally, current Required Action T.1.2.1 imposes specific isolation provisions or periodic verification within 7 days. TS 3.1.9 Action B imposes specific isolation provisions within 1 hour, a more restrictive change.

Note 3: TS 3.1.9 provides no default action if affected flow paths are not isolated. As such, if the isolation were not accomplished within the required time, LCO 3.0.3 would apply. Times listed for TS 3.1.9 for Mode 3 and Mode 5 combine TS 3.1.9 Action B and LCO 3.0.3 times.

Current TS 3.3.2, Action Q applies for inoperabilities of the Containment

Radioactivity – High 2 Function that isolate CVS makeup. These valves are addressed in TS 3.1.9, CVS Demineralized Water Isolation Valves and Makeup Line Isolation Valves. As shown below, TS 3.1.9 Required Actions are more restrictive than current TS 3.3.2 Action Q as a result of New TS 3.3.8, Action I declaring affected isolation valve(s) inoperable.

Required Unit Condition	New TS 3.1.9 Cumulative Hours	Current TS 3.3.2, Action Q Hours
Isolate Flow Path	1 (Action B)	6
Mode 3 (Note 3)	8 (LCO 3.0.3)	12
Mode 4 (Note 3)	14 (LCO 3.0.3)	18
Mode 5 (Note 3)	38 (LCO 3.0.3)	Not Required

Note 3: TS 3.1.9 provides no default action if affected flow paths are not isolated. As such, if the isolation were not accomplished within the required time, LCO 3.0.3 would apply. Times listed for TS 3.1.9 for Modes 3, 4, and 5 combine TS 3.1.9 Action B and LCO 3.0.3 times.

Function 17, Normal Residual Heat Removal System Isolation

Current TS 3.3.2, Action Q applies for inoperabilities of Containment Radioactivity – High 2 and Manual Functions that isolate RNS containment isolation valves. These valves are addressed in TS 3.6.3, Containment Isolation Valves. As a result of New TS 3.3.8, Action I declaring affected isolation valve(s) inoperable, new TS 3.6.3 Required Actions (as changed by DOC M11) do not impose an intermediate limitation to be in Mode 4, which is less restrictive than current TS 3.3.2 Action Q. A comparison of these Required Actions is provided below:

Required Unit Condition	New TS 3.6.3 Cumulative Hours	Current TS 3.3.2, Action Q Hours
Isolate Flow Path	1 (Action B)	6
Mode 3	7 (Action B+C)	12
Mode 4	- na -	18
Mode 5	37 (Action B+C)	- na -

Function 19, Containment Air Filtration System Isolation

Current TS 3.3.2, Action Z applies for inoperabilities of the Containment Radioactivity – High 1 Function that isolates Containment Air Filtration System

containment isolation valves. These valves are addressed in TS 3.6.3, Containment Isolation Valves. As a result of New TS 3.3.8, Action I declaring affected isolation valve(s) inoperable, new TS 3.6.3 Required Actions (as changed by DOC M11) do not impose an intermediate limitation to be in Mode 4, which is less restrictive than current TS 3.3.2 Action Z. A comparison of these Required Actions is provided below

Required Unit Condition	New TS 3.6.3 Cumulative Hours	Current TS 3.3.2, Action Z Hours
Isolate Flow Path	1 (Action B)	6
Mode 3	7 (Action B+C)	12
Mode 4 RNS in service	- na -	30
Mode 5	37 (Action B+C)	Not Required

Function 30, Component Cooling Water System Containment Isolation Valve Closure

Current TS 3.3.2, Action T applies for inoperabilities of the Reactor Coolant Pump Bearing Water Temperature – High Function that isolates Component Cooling Water System (CCS) containment isolation valves. These valves are addressed in TS 3.6.3, Containment Isolation Valves. As shown below, TS 3.6.3 Required Actions are more restrictive than current TS 3.3.2 Action T as a result of New TS 3.3.8, Required Action O.1 declaring affected isolation valve(s) inoperable.

Required Unit Condition	New TS 3.6.3 Cumulative Hours	Current TS 3.3.2, Action T Hours
Isolate Flow Path	1 (Action B)	6 (Note 2)
Mode 3	7 (Action B+C)	12
Mode 5	37 (Action B+C)	42

Note 2: Current Required Action T.1.1 requires flow path isolation within 6 hours. Additionally, current Required Action T.1.2.1 imposes specific isolation provisions or periodic verification within 7 days. TS 3.6.3 Action B imposes specific isolation provisions within 1 hour, a more restrictive change.

This change is designated as a less restrictive change because certain actions for inoperable instrumentation are less restrictive.

L13 Detailed Description

3.3.3-3 Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Table 3.3.3-1, "Post-Accident Monitoring Instrumentation," is revised as follows:

- Function 12 is revised from "Passive Residual Heat Removal (PRHR) Flow and PRHR Outlet Temperature," to "Passive Residual Heat Removal (PRHR) Heat Removal." In addition, the Required Channels/Divisions column is revised from "2 flow & 1 temperature," to "2."
- Function 17 is revised from "Passive Containment Cooling System (PCS) Storage Tank Level and PCS Flow," to "Passive Containment Cooling System (PCS) Heat Removal." In addition, the Required Channels/Divisions column is revised from "2 level & 1 flow," to "2."

Technical Evaluation

Current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," is renumbered as TS 3.3.17 as discussed in DOC A028.

Regulatory Guide 1.97, Revision 3, PAM requirements include redundancy for required monitoring functions. The current TS 3.3.3 Actions are constructed based on loss of redundancy (Action A, one channel inoperable) and loss of parameter monitoring (Action C, two channels inoperable). Current TS Table 3.3.3-1, Functions 12 and 17 currently require a total of three channels each, which exceeds the minimum necessary to meet the Standard TS requirements that only require minimum of two channels per Function for redundancy.

Function 12 is currently designated as "Passive Residual Heat Removal (PRHR) Flow and PRHR Outlet Temperature." As stated in the associated Bases, PRHR flow is provided to monitor primary system heat removal. Likewise, PRHR outlet temperature is provided to monitor primary system heat removal. The function that is being monitored is related to PRHR heat removal. Therefore, the appropriate Function designation is revised to "Passive Residual Heat Removal (PRHR) Heat Removal." Details related to the parameters used to monitor the Function are more appropriately described in the associated Bases.

Currently, TS Table 3.3.3-1 requires a total of three channels to be Operable for Function 12; two flow instrument channels and one temperature instrument channel. The proposed change requires that two channels of PRHR heat removal instrumentation are Operable. The details of which instrumentation can satisfy this requirement are more appropriately described in the associated Bases. Final Safety Analysis Report (FSAR) Table 7.5-1, "Post Accident Monitoring System," indicates that PRHR outlet temperature is a diverse variable for PRHR flow. As such, the PRHR outlet temperature channel can be used to satisfy one of the two required channels when the PRHR Flow channel in the same electrical division is inoperable. The specific channels designed to satisfy the PAM requirements are more appropriately described in the associated Bases.

Function 17 is currently designated as "Passive Containment Cooling System (PCS) Storage Tank Level and PCS Flow." The associated Bases state that the tank level instruments provide indication that sufficient water is available to meet

this requirement, and that the flow instrument provides a diverse indication of the PCS heat removal capability. The function that is being monitored is related to PCS heat removal. Therefore, the appropriate Function designation is revised to "Passive Containment Cooling System (PCS) Heat Removal." The specific channels designed to satisfy the PAM requirements are more appropriately described the associated Bases.

Currently, TS Table 3.3.3-1 requires that a total of three channels to be Operable for Function 17; two level instrument channels and one PCS flow instrument channel. The proposed change requires that two channels of PRHR heat removal instrumentation are Operable. The details of which instrumentation can satisfy this requirement are more appropriately described in the associated Bases. The associated Bases indicate that the PCS flow instrument provides a diverse indication of PCS heat removal capability. As such, the PCS flow channel can be used to satisfy one of the two required channels when the PCS level channel in the same electrical division is inoperable. The specific channels designed to satisfy the PAM requirements are more appropriately described in the associated Bases.

These changes reduce the number of required channels from three to two, consistent with NUREG-1431 requirements for meeting Regulatory Guide (RG) 1.97 PAM redundancy requirements. The change also relocates the details of the specific channels designed to satisfy the PAM requirements to the associated Bases. The removal of the third channel that can optionally be utilized to meet redundancy requirements continues to assure the TS to provide adequate protection of public health and safety. The proposed TS retain the necessary requirements to ensure the required RG 1.97 PAM redundancy requirements are met. Changes to the TS Bases are controlled by the TS Bases Control Program described in TS 5.5.6. This program provides for the evaluation of changes to ensure the TS Bases are properly controlled. This change is designated as a less restrictive change.

SCE&G commits to relocate details of design related to Passive Residual Heat Removal (PRHR) Flow, PRHR Outlet Temperature, Passive Containment Cooling System (PCS) Storage Tank Level, and PCS Flow to new TS 3.3.17 Bases.

L14 Detailed Description

3.3.5-3
3.6.6-1
3.6.7-1
3.7.9-1
3.7.9-2

Current TS 3.3.5, "Diverse Actuation System (DAS) Manual Controls," Table 3.3.5-1, "DAS Manual Controls," footnote b is revised from "With the calculated reactor decay heat > 6.0 MWt," to "With the reactor decay heat > 6.0 MWt."

Current TS 3.6.7, "Passive Containment Cooling System (PCS) – Shutdown," Applicability is revised from "MODE 5 with the calculated reactor decay heat > 6.0 MWt, MODE 6 with the calculated reactor decay heat > 6.0 MWt," to "MODES 5 and 6 with the reactor decay heat > 6.0 MWt."

Current TS 3.7.9, "Fuel Storage Pool Makeup Water Sources," LCO Notes 1, 2, and 3; Applicability, SR 3.7.9.1 Note, SR 3.7.9.2 Note, SR 3.7.9.3 Note, and

SR 3.7.9.4 Note are revised by deleting "calculated" with respect to decay heat.

Technical Evaluation

Current TS 3.3.5, "Diverse Actuation System (DAS) Manual Controls," is renumbered as TS 3.3.19 as discussed in DOC A028.

Current TS 3.6.6, "Passive Containment Cooling System (PCS) – Operating," and current TS 3.6.7 "Passive Containment Cooling System (PCS) – Shutdown," are combined into new TS 3.6.6, "Passive Containment Cooling System (PCS) ," as discussed in DOC M13.

The affected specifications ensure that the appropriate structures, systems, and components are Operable and that the appropriate testing is performed when reactor decay heat or fuel storage pool decay heat are above specified values, as applicable. The use of "calculated" is a method of determination that is not required to be included in the TS to properly interpret the applicability requirement.

This removal of details from the TS is acceptable because this type of information is not necessary to be included in the TS to provide adequate protection of public health and safety. The proposed TS retain the necessary requirements to ensure the required structures, systems, and components are Operable. Also, this change is acceptable because it is consistent with how decay heat is used to modify requirements stated in TS Table 1.1-1, “MODES,” footnote a, and in current TS Table 3.3.2-1, "Engineered Safeguards Actuation System Instrumentation," footnote f.

L15 **Detailed Description**

3.4.8-2 TS 3.4.8, "Minimum RCS Flow," SR 3.4.8.1 is revised from "Verify that at least one RCP is in operation at ≥ 10% rated speed or equivalent," to " Verify at least one RCP is in operation with total flow through the core ≥ 3,000 gpm."

Technical Evaluation

LCO 3.4.8 requires that at least one Reactor Coolant Pump (RCP) shall be in operation with a total flow through the core of at least 3,000 gpm. Surveillance Requirements are intended to periodically verify that the LCO is met. However, SR 3.4.8.1 currently requires verification that at least one RCP is operating at ≥ 10% rated speed or equivalent, which will result in expected flow through the RCP of 7875 gpm. Reference AP1000 Design Certification Amendment, the Westinghouse Electric Company (WEC) response to Open Item OI-SRP16-CTSB-62, dated July 15, 2009.

The 3000 gpm in the LCO is associated with the initial condition in the analysis of a possible Boron Dilution Event (BDE) in MODE 3, 4, or 5 for minimum mixing flow in the RCS. SR 3.4.8.1 is revised to reflect this value for consistency with the LCO. As stated in the response to RAI-SRP16-CTSB-62 (reference WEC response dated December 17, 2008), and repeated in the response to OI-SRP16-CTSB-62, the expected operating limit on the RCP minimum speed is expected to

be higher than 10%. This results in design margin to the 3000 gpm LCO value. The operating limit takes into account minimizing stress and wear, and increasing equipment life, and not the input assumptions for the Boron Dilution Analysis.

Surveillance acceptance criteria should match the LCO requirement to verify that the minimum flow rate is met. Operational margin details that account for minimizing stress and wear, and increasing equipment life and the expected operating limit on minimum RCP speed, are more appropriately controlled in the design and in procedures associated with operating and testing the RCPs.

Therefore, this change is considered acceptable because the proposed SR ensures that the analysis input assumptions are met. This change is designated as less restrictive because the proposed acceptance criteria will allow the SR to be met at a lower RCS flow rate.

L16 Detailed Description

3.4.10-1 Current TS 3.4.10, "RCS Specific Activity," Actions are revised by deleting Required Action B.1, "Perform SR 3.4.10.2," within 4 hours.

Technical Evaluation

In the event the Dose Equivalent XE-133 concentration is > 280 μCi/gm, the TS 3.4.10 Actions require entry into Condition B. Within 4 hours of entering Condition B, Required Action B.1 currently requires SR 3.4.10.2 to be performed. SR 3.4.10.2 verifies that the reactor coolant Dose Equivalent I-131 specific activity is ≤ 1.0 μCi/gm. In addition, upon entry into Condition B, Required Action B.2 currently requires that the plant be placed in Mode 3 with T_{avg} < 500˚F within 6 hours.

TS 3.4.10 does not specify a default condition to enter in the event the current Required Action B.1 is not completed within 4 hours. Current Required Action B.2 requires placing the plant in Mode 3 with T_{avg} < 500˚F within 6 hours. However, during this required shutdown, the Operator may be distracted by the need to perform the current Required Action B.1. Therefore, deleting the current Required Action B.1 results in reducing Operator burden in the event Condition B is entered.

This change is acceptable because the Actions continue to require that the plant be removed from the Applicability of TS 3.4.10 in the event Condition B is entered. Performing SR 3.4.10.2 within 4 hours of entering Condition B does not result in a more conservative action in the event the Dose Equivalent I-131 is found not within limits, because the plant is already required to be in Mode 3 with T_{avg} < 500˚F within 6 hours by the current Required Action B.2. This provides assurance that requirements of the safety analyses are preserved.

This change is designated as less restrictive because it removes an action currently required to be performed.

L17 Detailed Description

Current TS 3.5.2, "Core Makeup Tanks (CMTs) - Operating," is revised as follows:

3.5.2-1
3.5.4-1
3.5.5-1
3.5.6-1
3.5.7-1
3.5.8-1

- Condition D is revised from "One CMT inoperable due to presence of noncondensible gases in one high point vent," to "One CMT inlet line with noncondensible gas volume not within limit."
- Required Action D.1 is revised from "Vent noncondensible gases," to "Restore CMT inlet line noncondensible gas volume to within limit."

Current TS 3.5.4, "Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Operating," is revised as follows:

- Condition C is revised from "Presence of non-condensible gases in the high point vent," to "PRHR HX inlet line noncondensible gas volume not within limit."
- Required Action C.1 is revised from "Vent noncondensible gases," to "Restore PRHR HX inlet line noncondensible gas volume to within limit."

Current TS 3.5.5, "Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Shutdown, Reactor Coolant System (RCS) Intact," is revised as follows:

- Condition C is revised from "Presence of non-condensible gases in the high point vent," to "PRHR HX inlet line noncondensible gas volume not within limit."
- Required Action C.1 is revised from "Vent noncondensible gases," to "Restore PRHR HX inlet line noncondensible gas volume to within limit."

Current TS 3.5.6, "In-containment Refueling Water Storage Tank (IRWST) – Operating," is revised as follows:

- Condition B is revised from "One IRWST injection line inoperable due to presence of noncondensible gases in one high point vent," to "One IRWST injection flow path with noncondensible gas volume in one squib valve outlet line pipe stub not within limit."
- Required Action B.1 is revised from "Vent noncondensible gases," to "Restore noncondensible gas volume in squib valve outlet line pipe stub to within limit."
- Condition C is revised from "One IRWST injection line inoperable due to presence of noncondensible gases in both high point vents," to "One IRWST injection flow path with noncondensible gas volume in both squib valve outlet line pipe stubs not within limit."
- Required Action C.1 is revised from "Vent noncondensible gases from one high point vent," to "Restore noncondensible gas volume in one squib valve outlet line pipe stub to within limit."

Current TS 3.5.7, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 5," is revised as follows:

- Condition B is revised from "Required IRWST injection line inoperable due to presence of noncondensible gases in one high point vent," to "Required IRWST injection flow path with noncondensible gas volume in one squib valve outlet line pipe stub not within limit."

- Required Action B.1 is revised from "Vent noncondensible gases," to "Restore noncondensible gas volume in squib valve outlet line pipe stub to within limit."
- Condition C is revised from "Required IRWST injection line inoperable due to presence of noncondensible gases in both high point vents," to "Required IRWST injection flow path with noncondensible gas volume in both squib valve outlet line pipe stubs not within limit."
- Required Action C.1 is revised from "Vent noncondensible gases from one high point vent," to "Restore noncondensible gas volume in one squib valve outlet line pipe stub to within limit."

Current TS 3.5.8, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 6," is revised as follows:

- Condition B is revised from "Required IRWST injection line inoperable due to presence of noncondensible gases in one high point vent," to "Required IRWST injection flow path with noncondensible gas volume in one squib valve outlet line pipe stub not within limit."
- Required Action B.1 is revised from "Vent noncondensible gases," to "Restore noncondensible gas volume in squib valve outlet line pipe stub to within limit."
- Condition C is revised from "Required IRWST injection line inoperable due to presence of noncondensible gases in both high point vents," to "Required IRWST injection flow path with noncondensible gas volume in both squib valve outlet line pipe stubs not within limit."
- Required Action C.1 is revised from "Vent noncondensible gases from one high point vent," to "Restore one squib valve outlet line pipe stub noncondensible gas volume to within limit."

Technical Evaluation

As stated in the associated Bases for the current TS 3.5.2, TS 3.5.4, TS 3.5.5, TS 3.5.6, TS 3.5.7, and TS 3.5.8 Actions, the presence of some noncondensible gases does not mean that the CMT, PRHR HX, or IRWST injection capability is immediately inoperable, but that gases are collecting and should be vented. In addition, the associated LCO Bases for TS 3.5.2, TS 3.5.4, and TS 3.5.6 state that a relatively small gas volume was incorporated into the design for alerting operators to provide sufficient time to initiate venting operations before the gas volume would be expected to increase to a sufficient volume that might potentially challenge the OPERABILITY of natural circulation flow. The current language of TS 3.5.2, Condition D, TS 3.5.4, Condition C, TS 3.5.6, Condition B and Condition C, is not consistent with the intent of the LCO, as described in the Bases. Therefore, the Conditions are revised for consistency with the LCO as described in the associated Bases. TS 3.5.5, Condition C, TS 3.5.7, Conditions B and C, and TS 3.5.8, Conditions B and C, are revised for consistency. These changes are designated as less restrictive because the Actions will not be required for small volumes of noncondensible gas accumulations in the PRHR HX high point vents and the IRWST squib valve outlet pipe stubs.

Current TS 3.5.2, Required Action D.1, TS 3.5.4, Required Action C.1, TS 3.5.5,

Required Action C.1, TS 3.5.6, Required Action B.1, TS 3.5.6, Required Action C.1, TS 3.5.7, Required Action B.1, TS 3.5.7 Required Action C.1, TS 3.5.8, Required Action B.1, and TS 3.5.8, Required Action C.1 are revised to replace a specific method of restoration with a more general action to restore the parameter, in this case noncondensible gas volume, to within its limit. This change is made for consistency with the revised entry conditions associated with the Required Actions. Only the specific method is deleted from the action. The associated Bases, both current and revised, describe an appropriate method for restoration. Changes to the Bases are controlled by the TS Bases Control Program. This program provides for the evaluation of changes to ensure the Bases are properly controlled.

Because the revised Actions still assure that the parameter is restored, this detail is not required to be in the TS to provide adequate protection of the public health and safety. The revised Actions continue to provide assurance that operation with a noncondensible gas volume that can affect the associated flow path is allowed for only a limited period of time. These changes are designated as less restrictive because the specific method of restoration is deleted and replaced with a more general requirement to restore within the limit.

L18 Detailed Description

Current TS 3.6.8, "Containment Penetrations," LCO 3.6.8.d is revised from:

3.3.2-15
3.6.8-1
3.6.8-3

... either:

1. *closed by a manual or automatic isolation valve, blind flange, or equivalent, or*
2. *capable of being closed by an OPERABLE Containment Isolation signal.*

To:

... if open, can be closed by a manual or automatic isolation valve, blind flange, or equivalent prior to steaming into the containment.

Additionally, current SR 3.6.8.3 is deleted.

Current TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.2-1, Function 3.a is revised to delete the Modes 5 and 6 Applicability.

Technical Evaluation

Current TS 3.6.8, "Containment Penetrations," is renumbered as TS 3.6.7 as discussed in DOC M13.

Current TS LCO 3.6.8.d provides the requirements for each penetration providing direct access from the containment atmosphere to the outside atmosphere. The penetrations covered by this LCO requirement are those providing direct access to the outside atmosphere, which includes the containment air filter supply and

exhaust penetrations, and the vent and purge valves and the vacuum relief valves. For postulated shutdown events in Modes 5 and 6, RCS heat removal is provided by either passive residual heat removal (PRHR) or IRWST injection and containment sump recirculation. To support RCS heat removal, containment closure is required to limit the loss of the cooling water inventory from containment. The only Containment Isolation Signals required by current TS 3.3.2 in Modes 5 and 6 are the manual initiation functions. There are no automatic isolation functions required. Thus, LCO 3.6.8.d.2 is currently requiring the associated valves to be capable of closing from a Manual signal only. Current LCO 3.6.8.a, b, and c provide the requirements for the equipment hatches, air locks doors, and containment spare penetrations. All three of these requirements allow the associated penetration to be open, provided that it is capable of being closed prior to steaming into the containment. This capability is not reliant on any remote closure signals or automatic features. Manual closure capability is acceptable. The equipment hatches and personnel air locks have openings that are much larger than the containment air filter supply and exhaust penetrations, which are only 36 inch penetrations. Closing these larger penetrations may involve more protracted procedures to affect manual closure than would be for the containment air filter supply and exhaust penetrations. Therefore, it is deemed acceptable to allow the purge valve penetrations to be open, provided they can be closed prior to steaming into the containment. This allows all for major penetration flow paths to be controlled in a similar manner. Current SR 3.6.8.3, as well as the corresponding Containment Isolation Function in current TS Table 3.3.2-1, Function 3.a for Modes 5 and 6 are deleted, consistent with this change. Current SR 3.6.8.1 is adequate for ensuring the requirements of LCO 3.6.8.d.2, if being used to comply with the LCO, are verified on a periodic basis. This change is designated as less restrictive since the proposed LCO would remove requirements for Operable containment isolation signals in Modes 5 and 6, allowing manual operator action to affect any required isolation. The design provisions for instrumented closure signals are unaffected. However, provided the appropriate closure timing capability is provided commensurate with the timing necessary to achieve the closure prior to steaming into the containment, this change will not adversely impact public health and safety.

L19 Detailed Description

3.6.9-1 Current TS 3.6.9, "pH Adjustment," LCO statement and current SR 3.6.9.1 specify the required trisodium phosphate (TSP) in the pH adjustment baskets as 560 ft^3, which is a volume. Current TS 3.6.9 Condition A and Required Action A.1 also refer to the unit of measurement as a "volume." The TS LCO and SR 3.9.6.1 TSP requirement is changed from the volume requirement of 560 ft^3 to a weight requirement of 26,460 lbs. In addition, due to this change, Condition A and Required Action A.1 have been changed to refer to "weight" in lieu of "volume."

Technical Evaluation

Current TS 3.6.9, "pH Adjustment," is renumbered as TS 3.6.8 as discussed in

DOC M13.

Current TS LCO 3.6.9 requires the pH adjustment baskets to contain ≥ 560 ft^3 of TSP. Current SR 3.6.9.1 requires verification of this volume (560 ft^3) every 24 months. The pH adjustment baskets are part of the Passive Containment Cooling System (PXS), and are provided to adjust the pH of the water in containment following an accident where the containment floods. Following an accident with a large release of radioactivity, the containment pH is automatically adjusted to ≥ 7.0 to enhance iodine retention in the containment water. The desired pH value significantly reduces formation of elemental iodine and the total airborne iodine in the containment. The dodecahydrate form of TSP contained in the pH adjustment baskets provides the passive means of pH control for such accidents.

The amount of TSP needed to perform this pH adjustment is 26,460 lbs, as is specified in the Final Safety Analysis Report (FSAR), Section 6.3.2.2.4. This is the total weight of the TSP assumed in the accident analysis to adjust the pH to at least 7.0. The current value is in volume since the weight cannot be readily measured during operation. However, the conversion from weight to volume is more appropriately controlled in the Surveillance procedure that performs current SR 3.6.9.1. Specifically, since volume will decrease over time (i.e., density of TSP may increase after installation due to compaction and agglomeration from humidity inside the containment), the more appropriate parameter to establish the LCO requirement against is weight. The currently specified volume of 560 ft^3 will decrease later in the cycle. The intent of the 560 ft^3 (which includes approximately 10% additional margin) is to establish the pre-compaction and pre-agglomeration volume and not to establish the Operability criteria for later in cycle. The TS Bases discusses that the initial loading of TSP includes this 10% volume margin and that the required loading volume prior to compaction and agglomeration is ≥ 560 ft^3. The procedure can readily account for the conversion from volume to weight, and thus the LCO requirement can match the actual analysis units, which is in lbs. Agglomeration does not affect the weight of the TSP, only the volume. The proposed change ensures that the minimum weight required by the FSAR is maintained. In addition, the Surveillance procedure can adequately control the actual volume necessary to meet the weight requirement, similar to other Surveillances whose measured values must be adjusted to ensure the actual LCO limit is met.

In addition, the TS Bases describes that the TSP volume is normally monitored to ensure the weight limit is met, and that the monitored volume includes necessary corrections for possible compaction and agglomeration effects.

Due to the above described change to the LCO and SR value, a similar change to Condition A and Required Action A.1 (changing "volume" to "weight") is being made for consistency.

Therefore, this change is considered acceptable since the accident analysis assumptions concerning the weight of the TSP are still being met by the proposed LCO weight limit of 26,460 lbs. This change is designated as less restrictive since the proposed LCO will allow for a lesser volume over time consistent with expected compaction and agglomeration. While the total weight will remain

constant and sufficient to assure safety analysis assumptions are met, the unintended requirement to maintain volume ≥ 560 ft^3, even after compaction and agglomeration, is made less restrictive.

L20 Detailed Description

3.7.2-3 Current TS 3.7.2, "Main Steam Isolation Valves (MSIVs)," Condition D is modified by a Note that states "Separate Condition entry is allowed for each MSIV." The term "MSIV" is changed to "main steam line flow path."

Technical Evaluation

TS LCO 3.7.2 requires various main steam line flow path isolation valves to be Operable. Included in these valves are not only the MSIVs, but also the turbine stop valves, turbine control valves, turbine bypass valves, and moisture separator reheater 2nd stage steam isolation valves. Action D provides the actions to be taken when these valves are inoperable in MODE 2, 3, or 4. Required Action D.1 requires the associated flow path to be isolated and Required Action D.2 requires a periodic verification that the flow path remains in this condition. The current Note to Condition D only states that inoperable MSIVs have a separate Condition entry allowance.

However, the Condition applies to all valves required by the LCO, not just the MSIVs. The manner in which the Note is written does not allow Required Actions D.1 and D.2 to be taken for each affected flow path associated with any valves other than the MSIVs. For example, if a turbine stop valve is inoperable and Required Action D.1 initially complied with (i.e., the affected flow path is isolated), if a second valve in another flow path (e.g., a turbine bypass valve) becomes inoperable, there is no allowed time to perform Required Action D.1 on this new affected flow path; the Required Action is immediately not met and Condition E must be entered.

The proposed Note will allow separate Condition entry for each main steam line flow path. Required Action D.1 adequately compensates for the inoperability of each valve, since it requires the affected flow path to be isolated. This places the valve in the assumed post accident position. Required Action D.2 requires a periodic verification that the flow path remains isolated. Once isolated, the appropriate compensatory action is in place. Subsequent flow paths with inoperable valves are justified to be allowed appropriate Completion Times to isolate the affected flow path prior to requiring a unit shutdown in accordance with Action E. Providing this allowance minimizes the plant risk associated with imposing an unnecessary shutdown. Therefore, this change is considered acceptable.

This change is designated as less restrictive since the proposed Condition D Note allows separate Condition entry for more inoperable valves than currently allowed.

L21 Detailed Description

3.8.1-3 Current TS 3.8.1, "DC Sources – Operating," is revised to delete SR 3.8.1.3 Note 2.

3.8.7-4 Current TS 3.8.7, "Battery Parameters," is revised to delete the SR 3.8.7.6 Note.

Technical Evaluation

SR 3.8.1.3 Note 2 states, "This Surveillance shall not normally be performed in MODE 1, 2, 3, or 4 unless the spare battery is connected to replace the battery being tested. However, portions of the Surveillance may be performed to reestablish OPERABILITY provided an assessment determines the safety of the plant is maintained or enhanced." As stated in the SR 3.8.1.3 Bases, the "reason for Note 2 is that performing the Surveillance would perturb the electrical distribution system and challenge safety systems if the spare battery is not connected." The SR 3.8.7.6 Note states, "This Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR." Per the SR 3.8.7.6 Bases, the "reason for the Note is that performing the Surveillance would perturb the electrical distribution system and challenge safety systems."

The DC electrical power design includes four Class 1E DC electrical power subsystems each with battery banks and chargers. In addition, there is one installed spare battery and one installed spare battery charger, which provides backup service in the event that one of the battery banks and/or one of the preferred battery chargers is out of service. The spare battery bank and charger are Class 1E and have the same rating as the primary components. If the spare battery bank with the charger is substituted for one of the preferred battery banks or chargers, then the requirements of independence and redundancy between subsystems are maintained and the division is OPERABLE.

A spare battery bank and charger enables testing, maintenance, and equalization of battery banks offline. This configuration provides the capability for each battery bank or battery charger to be separately tested and maintained (including battery discharge tests, battery cell replacement, battery charger replacement) without limiting continuous plant operation at 100-percent power. The service test required by SR 3.8.1.3 and SR 3.8.7.6 would be performed on batteries only after they have been replaced with the spare. In this condition, the battery being tested is not connected to the electrical distribution system.

Final Safety Analysis Report (FSAR) 17.6 incorporates by reference NEI 07-02A, "Generic FSAR Template Guidance for Maintenance Rule Program Description for Plants Licensed Under 10 CFR Part 52," which requires procedures for maintenance risk assessment and management in accordance with 10 CFR 50.65(a)(4). The risk from maintenance activities is both assessed (i.e., using a risk-informed process to evaluate the overall contribution to risk of the planned maintenance activities) and managed (i.e., providing plant personnel with proper awareness of the risk, and taking actions as appropriate to control the risk).

Therefore, battery service testing would not be performed when the TS require its operability. TS Bases for SR 3.8.1.3 currently include the acknowledgement that the service test may be performed during any plant condition with the spare battery

and charger providing power to the bus. During performance of this SR, the spare battery would replace the battery being tested. Therefore, performance of this SR would not perturb the electrical distribution system and challenge safety systems. As such, the scope and intent of SR 3.8.1.3 Note 2 is not required. For consistency, TS Bases for SR 3.8.7.6 are being revised to reflect similar information regarding utilizing the spare battery. During performance of this SR, the spare battery would replace the battery being tested. Therefore, performance of SR 3.8.7.6 would not perturb the electrical distribution system and challenge safety systems. As such, the scope and intent of the SR 3.8.7.6 Note is not required.

The proposed change is acceptable because the required testing is performed on a specific battery when it is not connected to the electrical distribution system; thus resulting in no increase to plant risk due to maintenance activities. This change is designated as less restrictive because a limitation for SR testing is deleted.

L22 Detailed Description

3.8.2-1 Current TS 3.8.2, "DC Sources – Shutdown," is revised to add a new Action A to address inoperable battery charger(s), resulting in the renumbering of the subsequent Conditions and Required Actions.

The new Action A consists of the following:

- Condition A: One or more required battery chargers in one division inoperable
- Required Action A.1: Restore battery terminal voltage to greater than or equal to the minimum established float voltage with Completion Time of 6 hours;
- Required Action A.2: Verify battery float current ≤ 2 amps with Completion Time of once per 24 hours; and
- Required Action A.3: Restore battery charger(s) to Operable status with Completion Time of 72 hours.

Technical Evaluation

Current TS Required Actions for an inoperable battery charger are the same as for an inoperable battery or a completely deenergized DC electrical power subsystem, which requires immediate actions in accordance with current Action A.

New Action A and associated Required Actions A.1, A.2, and A.3 are added to TS 3.8.2 to address battery charger inoperability. These Actions address the condition where one or more battery charger(s) for any one division becomes inoperable. Note that the proposed addition is the same as TS 3.8.1, DC Sources – Operating, Condition A, Required Actions A.1, A.2 and A.3 and their associated Completion Times.

The proposed Required Action A.3 for TS 3.8.2 provides a 72-hour restoration time for inoperable battery charger(s) on one division. This time is contingent on a

focused and tiered approach to assuring adequate battery capability is maintained.

The first priority is to minimize the battery discharge. Required Action A.1 assures the discharge is terminated by requiring that the battery terminal voltage be restored to greater than or equal to the minimum established float voltage within 6 hours.

The second tier action (Required Action A.2) requires that within 24-hours (and continuing at 24-hour intervals) that verification is made that the battery has sufficient capacity to perform its assumed duty cycle. The 24 hours is provided since there may involve some recharging of lost capacity that occurred during the initial 2 hours. This provides a reasonable time to fully recharge the battery.

Given that the DC buses remain energized (as required by TS 3.8.6), the battery discharge (if it was occurring) is terminated (Required Action A.1), and that the battery is fully recharged (Required Action A.2), there is reasonable basis for extending the restoration time for an inoperable charger to 72 hours.

This change is designated as less restrictive because it extends the restoration time for an inoperable charger to 72 hours. The proposed TS change is consistent with NUREG-1431, Revision 4.0.

L23 Detailed Description

5.5-3 Current TS 5.5.2, "Radioactive Effluent Control Program," is revised to state that the provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency.

Technical Evaluation

The provisions of SR 3.0.2 are applied to the Radioactive Effluent Controls Program surveillance frequencies (note that the surveillance frequency is stated in TS 5.5.2.e) to allow for scheduling flexibility. SR 3.0.2 permits a 25% extension of the 31-day interval specified in the Frequency. Allowing a 25% extension in the frequency of performing the monthly cumulative dose and projected dose calculation for the current quarter/year allows for scheduling flexibility and will have no effect on the calculated doses.

Applying the provisions of SR 3.0.2 and SR 3.0.3 to the Radioactive Effluent Controls Program surveillance frequency is consistent with changes made in TSTF-258, “Changes to Section 5.0, Administrative Controls,” Revision 4, and as reflected in NUREG-1431.

L24 Detailed Description

5.5-3 Current TS 5.5.3, "Inservice Testing Program," paragraph b is revised from "The provisions of SR 3.0.2 are applicable to the above required Frequencies for performing inservice testing activities," to "The provisions of SR 3.0.2 are applicable to the above required Frequencies and other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program for

performing inservice testing activities."

Technical Evaluation

The Inservice Test Program may have Frequencies for testing that are based on risk and do not conform to the standard testing Frequencies specified in the TS. For example, an Inservice Testing Program may use American Society of Mechanical Engineers (ASME) Code Case OMN-1, “Alternative Rules for Preservice and Inservice Testing of Certain Electric Motor-Operated Valve Assemblies in Light-Water Reactor Plants,” in lieu of stroke time testing. The Frequency of the Surveillance may be determined through a mix of risk-informed and performance-based means in accordance with the Inservice Testing Program. This is consistent with the guidance in NUREG-1482, “Guidelines for Inservice Testing at Nuclear Power Plants,” which indicates that the 25% extension of the interval specified in the Frequency would apply to increased frequencies the same as it applies to regular frequencies. If a test interval is specified in 10 CFR 50.55a, the TS SR 3.0.2 Bases indicate that the requirements of the regulation take precedence over the TS.

Applying the provisions of SR 3.0.2 to other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program is consistent with changes made in TSTF-479, Revision 0, “Changes to Reflect Revision of 10 CFR 50.55a” and TSTF-497, Revision 0, “Limit Inservice Testing Program Application to Frequencies of 2 Years or Less,” and as reflected in NUREG-1431.

Attachment 6

No Significant Hazards Considerations

SIGNIFICANT HAZARDS EVALUATION ORGANIZATION

In accordance with the provisions of 10 CFR 50.90, South Carolina Electric and Gas Company (SCE&G) proposes to amend the Virgil C. Summer Nuclear Station, Units 2 and 3 (VCSNS) Technical Specifications (TS). Evaluations pursuant to 10 CFR 50.92 showing that the proposed changes do not involve significant hazards considerations are provided for each change.

However, due to the significant number of changes associated with the upgrade effort, similar changes have been grouped into categories to facilitate the significant hazards evaluations required by 10 CFR 50.92. Generic significant hazards evaluations are provided for the Administrative, More Restrictive, Relocation, and Detail Removed categories. Each individual Less Restrictive change is addressed by a specific significant hazards evaluation. Due to the large volume of changes, obvious editorial or administrative changes (e.g., formatting, page rolls, punctuation, etc.) do not always receive an explicit discussion, but are considered to be addressed by the applicable generic significant hazards evaluation for Administrative changes.

Each significant change to the TS is marked-up on the appropriate page in Enclosure 2 and assigned a reference number reflective of the significant hazards evaluation type. The reference number assigned to a change is used in the Discussion of Change (DOC) in Enclosure 1 which provides a detailed description (basis) for each change supporting the applicable significant hazards evaluation in this Attachment.

10 CFR 50.92 EVALUATION FOR ADMINISTRATIVE CHANGES

This generic category applies to changes that are editorial in nature, involve the movement of requirements within the Technical Specifications (TS) without affecting their technical content, simply reformat a requirement, or clarify the TS (such as deleting a footnote no longer applicable due to a technical change to a requirement). These changes also include non-technical modifications of requirements to conform to TSTF-GG-05-01, "Writer's Guide for Plant-Specific Improved Standard Technical Specifications," or provide consistency with the Improved Standard Technical Specifications in NUREG-1431.

Changes to the TS requirements categorized as Administrative are annotated with an "A" in the Enclosure 1 Discussion of Change (DOC) and Enclosure 2 markup.

These changes are intended to make the TS more readily understandable to plant operators and other users. The application of the TS format and style will also assure consistency is achieved between TS. During this reformatting and rewording process, no technical changes (either actual or interpretational) were made to the TS unless they were identified and justified. Due to the large volume of changes, obvious editorial or administrative changes (e.g., formatting, page rolls, punctuation, etc.) do not always receive a DOC reference number but are considered to be addressed by this generic significant hazards evaluation for Administrative changes.

South Carolina Electric and Gas Company (SCE&G) proposes to amend the Virgil C. Summer Nuclear Station, Units 2 and 3 (VCSNS), Technical Specifications. SCE&G has evaluated each of the proposed TS changes identified as Administrative in accordance with the criteria set forth in 10 CFR 50.92, “Issuance of amendment,” and has determined that the proposed changes do not involve a significant hazards consideration. This significant hazards consideration is applicable to each Administrative change identified in Enclosure 1 and Enclosure 2.

The basis for the determination that the proposed changes do not involve a significant hazards consideration is an evaluation of these changes against each of the criteria in 10 CFR 50.92(c). The criteria and conclusions of the evaluation are presented below:

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

   Response: No.

   The proposed changes involve reformatting, renumbering, and rewording the TS. The reformatting, renumbering, and rewording process involves no technical changes to the TS. As such, these changes are administrative in nature and do not affect initiators of analyzed events or assumed mitigation of accident or transient events. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

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

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

Response: No.

The proposed changes will not reduce a margin of safety because the changes have no effect on any safety analyses assumptions. These changes are administrative in nature. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, it is concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of “no significant hazards consideration” is justified.

10 CFR 50.92 EVALUATION FOR MORE RESTRICTIVE CHANGES

This generic category include changes that impose additional requirements, decrease allowed outage times, increase the Frequency of Surveillances, impose additional Surveillances, increase the scope of Specifications to include additional plant equipment, broaden the Applicability of Specifications, or provide additional actions. These changes have been evaluated to not be detrimental to plant safety.

More restrictive changes are proposed only when such changes are consistent with the current Virgil C. Summer Nuclear Station, Units 2 and 3 (VCSNS) licensing basis; the applicable VCSNS safety analyses; and good engineering practice such that the availability and reliability of the affected equipment is not reduced.

Changes to the Technical Specifications (TS) requirements categorized as More Restrictive are annotated with an "M" in the Enclosure 1 Discussion of Change (DOC) and Enclosure 2 markup.

South Carolina Electric and Gas Company (SCE&G) proposes to amend the VCSNS TS. SCE&G has evaluated each of the proposed TS changes identified as More Restrictive in accordance with the criteria set forth in 10 CFR 50.92, “Issuance of amendment,” and has determined that the proposed changes do not involve a significant hazards consideration. This significant hazards consideration is applicable to each More Restrictive change identified in Enclosure 1 and Enclosure 2.

The basis for the determination that the proposed changes do not involve a significant hazards consideration is an evaluation of these changes against each of the criteria in 10 CFR 50.92(c). The criteria and conclusions of the evaluation are presented below:

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

   Response: No.

   The proposed changes provide more stringent TS requirements. These more stringent requirements do not result in operations that significantly increase the probability of initiating an analyzed event, and do not alter assumptions relative to mitigation of an accident or transient event. The more restrictive requirements continue to ensure process variables, structures, systems, and components are maintained consistent with the safety analyses and licensing basis. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

The proposed changes do not involve a physical alteration of the plant (no new or different type of equipment will be installed) or changes in methods governing normal plant operation. The proposed changes do impose different Technical Specification requirements. However, these changes are consistent with the assumptions in the safety analyses and licensing basis. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

The imposition of more restrictive requirements either has no effect on or increases a margin of plant safety. As provided in the discussion of change, each change in this category is, by definition, providing additional restrictions to enhance plant safety. The changes maintain requirements within the safety analyses and licensing basis. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, it is concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of “no significant hazards consideration” is justified.

10 CFR 50.92 EVALUATION
FOR
RELOCATED SPECIFICATIONS

This generic category applies to changes that relocate entire Technical Specifications (TS) Limiting Conditions for Operations (LCOs). A specific Discussion of Change (DOC) for each TS identified for relocation is provided in Enclosure 1. This evaluation will be applicable to each of the changes identified with an "R" in the Enclosure 1 DOC and the associated Enclosure 2 markup.

South Carolina Electric and Gas Company (SCE&G) proposes to amend the Virgil C. Summer Nuclear Station, Units 2 and 3 (VCSNS), TS. Some of the proposed changes involve relocating certain TS LCOs to licensee controlled documents that are subject to the provisions of 10 CFR 52.98.

SCE&G has evaluated the VCSNS TS using the criteria set forth in 10 CFR 50.36, which define the scope of the TS. LCOs identified by this evaluation that did not meet the retention requirements specified in the regulation are deleted from the TS.

SCE&G has evaluated each of the proposed TS changes identified as Relocated Specifications in accordance with the criteria set forth in 10 CFR 50.92, “Issuance of amendment,” and has determined that the proposed changes do not involve a significant hazards consideration. This significant hazards consideration is applicable to each Relocated Specification identified in Enclosure 1 and Enclosure 2.

The basis for the determination that the proposed changes do not involve a significant hazards consideration is an evaluation of these changes against each of the criteria in 10 CFR 50.92(c). The criteria and conclusions of the evaluation are presented below:

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

   Response: No.

   The proposed changes relocate LCOs for structures, systems, components, or variables that do not meet the criteria of 10 CFR 50.36(c)(2)(ii) for inclusion in TS. The affected structures, systems, components, or variables are not assumed to be initiators of analyzed events and are not assumed to mitigate accident or transient events. The requirements and Surveillances for these affected structures, systems, components, or variables are proposed to be relocated from the TS to a licensee controlled document that is controlled by the provisions of 10 CFR 52.98. The proposed changes only reduce the level of regulatory control on these requirements. The level of regulatory control has no impact on the probability or consequences of an accident previously evaluated. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

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

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

   Response: No.

   The proposed changes will not reduce a margin of safety because they have no significant effect on any safety analyses assumptions, as indicated by the fact that the requirements do not meet the 10 CFR 50.36 criteria for retention. In addition, the relocated requirements are moved without change, and any future changes to these requirements will be evaluated per 10 CFR 52.98.

   NRC prior review and approval of changes to these relocated requirements, in accordance with 10 CFR 50.92, will no longer be required. There is no margin of safety attributed to NRC prior review and approval. However, the proposed changes are consistent with 10 CFR 50.36, which allows revising the TS to relocate these requirements and Surveillances to a licensee controlled document. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, it is concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of “no significant hazards consideration” is justified.

10 CFR 50.92 EVALUATION
FOR
DETAIL REMOVED CHANGES

This generic category applies to changes that involve removing details out of the Technical Specifications (TS). These details are either supported by existing content in the TS Bases or the Final Safety Analysis Report (FSAR) or a commitment is made to add them to the TS Bases or FSAR. The removal of this information is considered to be less restrictive because it is no longer controlled by the TS change process. Typically, the information removed is descriptive in nature and its removal conforms to NUREG-1431 for format and content.

A specific Discussion of Change (DOC) for each detail identified for removal is provided in Enclosure 1. This evaluation will be applicable to each of the changes identified with a "D" in the Enclosure 1 DOC and the associated Enclosure 2 markup.

South Carolina Electric and Gas Company (SCE&G) proposes to amend the Virgil C. Summer Nuclear Station, Units 2 and 3 (VCSNS), Technical Specifications. SCE&G has evaluated each of the proposed TS changes identified as Detail Removed in accordance with the criteria set forth in 10 CFR 50.92, “Issuance of amendment,” and has determined that the proposed changes do not involve a significant hazards consideration. This significant hazards consideration is applicable to each Detail Removed change identified in Enclosure 1 and Enclosure 2.

The basis for the determination that the proposed changes do not involve a significant hazards consideration is an evaluation of these changes against each of the criteria in 10 CFR 50.92(c). The criteria and conclusions of the evaluation are presented below:

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

   Response: No.

   The proposed changes relocate certain details from the TS to other documents under regulatory control. The FSAR will be maintained in accordance with 10 CFR 50.59 and 10 CFR 52, Appendix D, Section VIII. The TS Bases are subject to the change control provisions in the Administrative Controls Chapter of the TS. Since any changes to these documents will be evaluated, no significant increase in the probability or consequences of an accident previously evaluated will be allowed. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed changes do 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 operations. The proposed changes will not impose or eliminate any

requirements, and adequate control of the information will be maintained. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

The proposed changes will not reduce a margin of safety because they have no effect on any assumption of the safety analyses. In addition, the details to be moved from the TS to other documents are not being changed. Since any future changes to these details will be evaluated under the applicable regulatory change control mechanism, no significant reduction in a margin of safety will be allowed. A significant reduction in a margin of safety is not associated with the elimination of the 10 CFR 50.90 requirement for NRC review and approval of future changes to the relocated details. Not including these details in the TS is consistent with NUREG-1431, issued by the NRC, which allows revising the TS to relocate these requirements to a licensee controlled document controlled by 10 CFR 50.59 and 10 CFR 52, Appendix D, Section VIII, or other TS controlled or regulation controlled documents. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, it is concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of “no significant hazards consideration” is justified.

10 CFR 50.92 EVALUATION FOR LESS RESTRICTIVE CHANGES

This category consists of technical changes which revise existing requirements such that more restoration time is provided, fewer compensatory measures are needed, surveillance requirements are deleted, or less restrictive surveillance requirements are required. This would also include requirements which are deleted from the Technical Specifications (TS) (not relocated to other documents) and other technical changes that do not fit a generic category. These changes are evaluated individually.

Technical changes to the TS requirements categorized as "Less Restrictive" are identified with an "L" and an individual number in the Enclosure 1 Discussion of Change (DOC) and Enclosure 2 markup.

South Carolina Electric and Gas Company (SCE&G) proposes to amend the Virgil C. Summer Nuclear Station, Units 2 and 3 (VCSNS), Technical Specifications. SCE&G has evaluated each of the proposed technical changes identified as "Less Restrictive" individually in accordance with the criteria set forth in 10 CFR 50.92 and has determined that the proposed changes do not involve a significant hazards consideration.

The basis for the determination that the proposed changes do not involve a significant hazards consideration is an evaluation of these changes against each of the criteria in 10 CFR 50.92(c). The criteria and conclusions of the evaluation are presented below.

L01 SCE&G proposes to amend TS 1.0, "Definitions," by deleting the definition for Actuation Device Test. Reference to “overlap with the ACTUATION DEVICE TEST” that is cited in the definition of Actuation Logic Test is replaced with “overlap with the actuated device.”

Current Surveillance Requirement (SR) 3.3.2.7 (“Perform ACTUATION DEVICE TEST”) and SR 3.3.2.8 (“Perform ACTUATION DEVICE TEST for squib valves”) are deleted from current TS 3.3.2 and Table 3.3.2-1, Function 26, ESF Actuation. The equivalent requirement (using phrasing generally consistent with NUREG-1431) is included in individual Specifications for the actuated devices with the same 24 month Frequency as the deleted SRs. The impact of this reformatting is such that more appropriate, albeit less restrictive, actions would be applied when the associated device fails to meet the surveillance requirement. Also, current SR 3.3.2.9 is revised to eliminate the use of the Actuation Device Test defined term and replaced it with verification of actuation on an actual or simulated actuation signal.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. The change involves reformatting and revising the presentation of existing surveillance requirements (with no change in required system or device function), such that more appropriate, albeit less restrictive, actions would be applied when the device fails to meet the surveillance requirement. Revised surveillance requirement presentation and compliance with TS actions are not an initiator to any accident previously evaluated. As a result, the probability of an accident previously evaluated is not affected.

   The consequences of an accident as a result of the revised surveillance requirements and actions are no different than the consequences of the same accident during the existing ones. As a result, the consequences of an accident previously evaluated are not affected by this change.

   The proposed change does not alter or prevent the ability of structures, systems, and components from performing their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits. The proposed change does not affect the source term, containment isolation, or radiological release assumptions used in evaluating the radiological consequences of an accident previously evaluated. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change reformats TS requirements such that more appropriate, albeit less restrictive, actions would be applied when the device fails to meet the surveillance requirement. However, the proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

The proposed change will not reduce a margin of safety because it has no effect on any assumption of the safety analyses. While certain actions for inoperability of actuated devices are made less restrictive by eliminating entry into ESFAS Actuation and Instrumentation inoperability actions, no action is made less restrictive than currently approved for any associated actuated device inoperability. As such, there is no significant reduction in a margin of safety.

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

L02 SCE&G proposes to amend current TS 5.6, "Reporting Requirements," to delete TS 5.6.1, "Occupational Radiation Exposure Report," and TS 5.6.4, "Monthly Operating Reports." This change results in the renumbering of TS 5.6 sections, but does not revise technical or administrative requirements. The change is consistent with NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-369, "Removal of Monthly Operating Report and Occupational Radiation Exposure Report," Revision 1.

SCE&G has reviewed the proposed no significant hazards consideration determination published on June 23, 2004 (69 FR 35067) as part of the Consolidated Line Item Improvement Process (CLIIP) for TSTF-369, Revision 1. SCE&G has concluded that the proposed determination presented in the notice is applicable to VCSNS and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91 (a).

L03 SCE&G proposes to amend TS to eliminate the use of the defined term "CORE ALTERATIONS" and incorporate changes reflected in TSTF-471-A.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

   Response: No.

   The proposed change eliminates the use of the term "CORE ALTERATIONS," all Required Actions requiring suspension of core alterations, and reference to core alterations in a surveillance requirement. With the exception of a fuel handling accident, core alterations are not an initiator of any accident previously evaluated. Those revised Specifications which protect the initial conditions of a fuel handling accident also require the suspension of movement of irradiated fuel assemblies. This Required Action protects the initial conditions of a fuel handling accident and, therefore, suspension of all other core alterations is not required. Suspension of core alterations, except fuel handling, does not provide mitigation of any accident previously evaluated. Therefore, eliminating the TS presentation of core alterations does not affect the initiators of the accidents previously evaluated and suspension of core

alterations does not affect the mitigation of the accidents previously evaluated. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   Two events are postulated to occur in the plant conditions in which core alterations may be made: a fuel handling accident and a boron dilution incident. Suspending movement of irradiated fuel assemblies to prevent a fuel handling accident is retained as appropriate. As such, requiring the suspension of core alterations is an overly broad, redundant requirement that does not increase a margin of safety. Core alterations have no effect on a boron dilution incident. Core components are not involved in the creation or mitigation of a boron dilution incident and the shutdown margin (Mode 5) and boron concentration (Mode 6) limits are based on assuming the worst-case configuration of the core components. Therefore, core alterations have no effect on a margin of safety related to a boron dilution incident. Therefore, there is no significant reduction in a margin of safety.

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

L04 SCE&G proposes to amend TS, Section 1.3, "Completion Times," Example 1.3-3 to eliminate the Required Action A.1 and Required Action B.1 second Completion Times, and to replace the discussion regarding second Completion Times with a new discussion. SCE&G also proposes to delete the second Completion Times associated with current TS 3.8.5, “Distribution Systems – Operating,” Required Actions A.1, B.1, C.1, and D.1.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change eliminates certain Completion Times from the Technical Specifications. Completion Times are not an initiator to any accident previously evaluated. As a result, the probability of an accident previously evaluated is not affected. The consequences of an accident during the revised Completion Time are no different than the consequences of the same accident during the existing Completion Times. As a result, the consequences of an accident previously evaluated are not affected by this change. The proposed change does not alter or prevent the ability of structures, systems, and components (SSCs) from performing their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits. The proposed change does not affect the source term, containment isolation, or radiological release assumptions used in evaluating the radiological consequences of an accident previously evaluated. Further, the proposed change does not increase the types or amounts of radioactive effluent that may be released offsite, nor significantly increase individual or cumulative occupational/public radiation exposures. The proposed change is consistent with the safety analysis assumptions and resultant consequences.

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

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change to delete the second Completion Time does not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The safety analysis acceptance criteria are not affected by this change. The proposed change will not result in

plant operation in a configuration outside of the design basis. Therefore, there is no significant reduction in a margin of safety.

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

L05 SCE&G proposes to amend TS to eliminate LCO 3.0.8.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

   Response: No.

   Technical Specification actions to restore equipment to Operable and to monitor plant parameters are not initiators to any analyzed accident sequence. Operation in accordance with the proposed TS continues to ensure that plant equipment is capable of performing mitigative functions assumed by the accident analysis.

   The proposed TS change does not involve any changes to structures, systems, or components (SSCs) and does not alter the method of operation or control of SSCs as described in the Final Safety Analysis Report (FSAR). The current assumptions in the safety analysis regarding accident initiators and mitigation of accidents are unaffected by this change. No additional failure modes or mechanisms are being introduced and the likelihood of previously analyzed failures remains unchanged.

   The integrity of fission product barriers, plant configuration, and operating procedures as described in the FSAR will not be affected by this change. Therefore, the consequences of previously analyzed accidents will not increase because of this change. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. Any alteration in procedures will continue to ensure that the plant remains within analyzed limits, and no change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR. As such, no new failure modes are being introduced. The change does not alter assumptions

made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   Margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed change does not alter the requirement to restore compliance with TS and to monitor plant parameter status for appropriate manual actions. Operation in accordance with the proposed TS ensures that the plant response to analyzed events will continue to provide the margins of safety assumed by the analysis. Appropriate monitoring and maintenance, consistent with industry standards, will continue to be performed.

   As such, there is no functional change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L06 SCE&G proposes to amend TS to eliminate the increased frequency of verifying core power distribution parameters when the On-line Power Distribution Monitoring System (OPDMS) alarms are inoperable. This change retains the normal 24-hour Frequency and eliminates the 12-hour Frequency when OPDMS alarms are inoperable.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   A TS frequency for monitoring plant parameters is not an initiator to any accident sequence analyzed in the FSAR. Operation in accordance with the proposed TS continues to ensure that initial conditions assumed in the accident analysis are maintained.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR and does not alter the method of operation or control of equipment as described in the FSAR. The current assumptions in the safety analysis regarding accident initiators and mitigation of accidents are unaffected by this change. Plant equipment remains capable of performing mitigative functions assumed by the accident analysis. No additional failure modes or mechanisms are being introduced and the likelihood of previously analyzed failures remains unchanged. The integrity of fission product barriers, plant configuration, and operating procedures as described in the FSAR will not be affected by this change. Therefore, the consequences of previously analyzed

accidents will not increase because of this change. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. Any alteration in procedures will continue to ensure that the plant remains within analyzed limits, and no change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   Margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed change is acceptable because the OPDMS alarms do not impact a margin of safety. Operation in accordance with the proposed TS ensures that the plant response to analyzed events will continue to provide the margins of safety assumed by the analysis. Appropriate monitoring and maintenance, consistent with industry standards, will continue to be performed.

   As such, there is no functional change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L07 SCE&G proposes to amend the TS by replacing the TS Required Actions requiring the reactor trip breakers (RTBs) to be opened with two Required Actions: one Required Action states "Initiate action to fully insert all rods," and the other Required Action states "Place the Plant Control System in a condition incapable of rod withdrawal." For consistency, TS Applicabilities associated with RTB position are also being revised. Applicabilities including “RTBs closed” are revised to state "Plant Control System capable of rod withdrawal or one or more rods not fully inserted." Conversely, Applicabilities including "RTBs open" are revised to state "With Plant Control System incapable of rod withdrawal and all rods fully inserted."

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR and does not alter the method of operation or control of equipment as described in the FSAR. The current assumptions in the safety analysis regarding accident initiators and mitigation of accidents are unaffected by this change. Plant equipment remains capable of performing mitigative functions assumed by the accident analysis. However, the change involves allowing methods of compliance other than establishing or verifying RTB open or closed status to determine the condition of the capability of the Plant Control System to allow or inhibit rod withdrawal and the status of all rods inserted or not. The method of establishing this status is not an accident initiator nor involved with mitigation of the consequences of an accident. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does allow methods of compliance other than establishing or verifying RTB open or closed status; however, RTB open or closed status will continue to be one appropriate and viable method of establishing and verifying applicable plant conditions. The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change will not reduce a margin of safety because it has no effect on any assumption of the safety analyses. While certain interlocks depend on RTB open or close status, these interlocks and the association with RTB is not revised. When those interlocks are required, the position of RTBs

will continue to dictate the appropriate protection system response. Allowing alternate methods of establishing or verifying the condition of the capability of the Plant Control System to allow or inhibit rod withdrawal and the status of all rods inserted or not, does not impact any safety analysis assumption or plant response to an analyzed event.

As such, there is no functional change to the required plant conditions, and therefore, there is no significant reduction in a margin of safety.

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

L08 SCE&G proposes to amend the TS by deleting current TS 3.3.1, Reactor Trip System (RTS) Instrumentation, Required Actions D.1.1, D.2.1, and D.2.2 applicable to inoperable Power Range Neutron Flux channels.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. Overly restrictive and inappropriate Required Actions are being deleted since adequate compensatory measures already address the potential impact on radial power monitoring and the appropriate compensatory and mitigative actions in the event the RTS function is degraded for the Power Range Neutron Flux function. Additionally, the Surveillances for TS 3.2.4, Quadrant Power Tilt Ratio (QPTR), address the requirements unique to loss of Power Range Neutron Flux monitoring for QPTR. Eliminating overly restrictive and inappropriate Required Actions does not impact an accident initiator or impact mitigation of the consequences of any accident. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change eliminates overly restrictive and inappropriate Required Actions. However, the proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As

such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   Margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed change will not reduce a margin of safety because it has no such effect on any assumption of the safety analyses. While certain actions for inoperability of actuated devices are made less restrictive by eliminating a potentially unnecessary power reduction, and actions that could not be performed, no action is made less restrictive than currently approved for similar channel inoperability. Therefore, there is no significant reduction in a margin of safety.

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

L09 SCE&G proposes to amend current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," Source Range Neutron Flux Actions in Mode 2 for one and two inoperable channels. The change allows for placing inoperable channels in bypass and/or trip thereby allowing continued operation.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. However, the change involves providing actions allowing bypassing and/or tripping one or two inoperable Source Range Neutron Flux channels. Required Actions are not an accident initiator nor credited with mitigation of the consequences of an accident. The actions continue to assure operation consistent with the design provisions and within the assumptions of the safety analysis. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change involves certain less restrictive actions; however, these actions are consistent with the design provisions and with currently approved actions for other inoperable automatic RTS actuation functions. The proposed

change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   Margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed change will not reduce a margin of safety because it has no such effect on any assumption of the safety analyses. While the change involves less restrictive actions, these actions are consistent with the design provisions and with currently approved actions for other inoperable automatic RTS actuation Functions. These actions do not result in any conflict with the assumptions in the safety analyses and licensing basis. As such, there is no significant reduction in a margin of safety.

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

L10 SCE&G proposes to amend the TS, as follows:

- TS 3.1.8 “PHYSICS TESTS Exceptions – MODE 2,” is revised to delete the listing of current Function 16.b for TS 3.3.1, “Reactor Trip System (RTS) Instrumentation”;
- Current TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," Table 3.3.1-1, Function 16, Reactor Trip System Interlocks requirements are removed;
- Current TS 3.3.1 Action M is deleted;
- Current TS 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.2-1, Function 18, ESFAS Interlocks (with the exception of Table 3.3.2-1, Function 18.b, Reactor Trip, P-4) requirements are removed; and
- Current TS 3.3.2 Action J is deleted.

The design description and role in supporting operability of TS required RTS and ESFAS functions are retained in the FSAR Chapter 7, Instrumentation and Controls, as well as the TS Bases.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set

forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. The TS RTS and ESFAS actuation functions explicitly retained in TS are those assumed to actuate in the safety analysis. The associated interlocks are necessary support functions for Operability of these TS required RTS and ESFAS functions. The removal of explicit interlock functions does not impact the design-required actuation function. Plant equipment remains capable of performing preventative and mitigative functions assumed by the accident analysis. However, the change involves removing explicit requirements, including actions that lead to reestablishing operability of the assumed actuation functions; implicitly these requirements are maintained and the actions remain viable for reestablishing operability. Since the requirements for the safety function Operability remains unchanged, removing the explicit presentation of detail is not an accident initiator nor involved with mitigation of the consequences of an accident. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change will not reduce a margin of safety because it has no effect on any assumption of the safety analyses. While the presentation of TS RTS and ESFAS actuation functions moves the associated interlocks from explicit treatment to becoming an implicit support system feature, the function continues to be required as necessary to support associated TS actuation functions. In doing so, certain actions for inoperability of interlocks are made

more restrictive by now entering actions specific to the supported function's inoperability which have shorter Completion Times. However those actions are consistent with those currently approved for inoperability of that function. As such, there is no significant reduction in a margin of safety.

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

L11 SCE&G proposes to amend TS 3.3.1, "Reactor Trip System (RTS) Instrumentation," to delete:

- Current Table 3.3.1-1, Function 5, Source Range Neutron Flux High Setpoint, third row for that function including Applicability set "$3^{(e)}$,$4^{(e)}$,$5^{(e)}$" and associated references to Required Channel, Condition, and Surveillance Requirements;
- Current Table 3.3.1-1, Footnote (e); and
- Current Action R.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. The change involves removing certain actions that apply during inoperability of all four source range channels to provide indication. However, requirements and associated Required Actions continue to apply to source range channels in a separate TS. The Required Actions removed are not accident initiators nor involved with mitigation of the consequences of an accident. The remaining requirements and actions continue to assure operation within the assumptions of the safety analysis. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change involves removing certain actions for inoperability of all four source range channels; however, this change does not result in any conflict with the assumptions in the safety analyses and licensing basis. The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated,

nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   Margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed change will not reduce a margin of safety because it has no such effect on any assumption of the safety analyses. While certain actions for inoperability of all four source range channels to indicate are removed, requirements and associated Required Actions continue to apply to source range channels in a separate TS. When all source range monitoring channels are inoperable, the remaining actions continue to assure operation within safety analysis assumptions. These actions are consistent with the actions presented in the NUREG-1431. As such, there is no significant reduction in a margin of safety.

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

L12 SCE&G proposes to amend current TS 3.3.2, “Engineered Safety Feature Actuation System (ESFAS) Instrumentation,” Actions related to functions that result in valve isolation actuations. Current TS 3.3.2 Actions P, Q, R, S, T, and Z, are revised to “Declare affected isolation valve(s) inoperable.” Additionally, the following current Table 3.3.2-1 Applicability Footnotes are deleted:

- (e) Not applicable for valve isolation functions whose associated flow path is isolated;
- (h) Not applicable if all MSIVs are closed; and
- (i) Not applicable when the startup feedwater flow paths are isolated.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. The less restrictive Required Actions are acceptable based on the fact that the new actions are the appropriate actions for the actuated equipment. Required Actions are not an accident initiator nor credited with mitigation of the consequences of an accident. The actions continue to assure operation within the assumptions of

the safety analysis and are consistent with approved actions for the actuated equipment. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change involves certain less restrictive actions; however, the actions continue to assure operation within the assumptions of the safety analysis and are consistent with approved actions for the actuated equipment. The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change will not reduce a margin of safety because it has no effect on any assumption of the safety analyses. While the change involves less restrictive actions, the actions are consistent with approved actions for the actuated equipment. These actions do not result in any conflict with the assumptions in the safety analyses and licensing basis. As such, there is no significant reduction in a margin of safety.

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

L13 SCE&G proposes to amend current TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," as follows:

- Function 12 is revised from "Passive Residual Heat Removal (PRHR) Flow and PRHR Outlet Temperature," to "Passive Residual Heat Removal (PRHR) Heat Removal." In addition, the Required Channels/Divisions column is revised from "2 flow & 1 temperature," to "2."
- Function 17 is revised from "Passive Containment Cooling System (PCS) Storage Tank Level and PCS Flow," to "Passive Containment Cooling System (PCS) Heat Removal." In addition, the Required Channels/Divisions column is revised from "2 level & 1 flow," to "2."

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

   Response: No.

   The proposed change reduces the number of required Function 12 and Function 17 channels from three to two. Requiring the minimum of two redundant channels is consistent with NUREG-1431 requirements for meeting Regulatory Guide (RG) 1.97 PAM redundancy requirements. The change also relocates the details of the specific channels designed to satisfy the PAM requirements to the associated Bases. The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. PAM functions are not initiators of analyzed events and therefore the revised requirements do not result in operations that significantly increase the probability of initiating an analyzed event. The PAM function affected by this change is designed to accommodate single failure to support post-accident monitoring. The change reduces TS requirements on excess required channels; however, single failure redundancy continues to be required. Thus, the proposed change does not alter assumptions relative to mitigation of an accident or transient event. The less restrictive requirements continue to ensure process variables, structures, systems, and components are maintained consistent with the safety analyses and licensing basis.

   The TS Bases will be maintained in accordance with the change control provisions of the TS Bases Control Program described in TS 5.5.6. Because any change to the TS Bases will be evaluated, no significant increase in the probability or consequences of an accident previously evaluated will be allowed. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

The proposed change will not reduce a margin of safety because it has no effect on any assumption of the safety analyses. In addition, the details being moved from the current TS to the TS Bases are not being changed. NRC prior review and approval of changes to these relocated requirements, in accordance with 10 CFR 50.92, will no longer be required. Future change to these details will be evaluated under the applicable regulatory change control mechanism. There is no margin of safety attributed to NRC prior review and approval; therefore, there is no significant reduction in a margin of safety.

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

L14 SCE&G proposes to amend current TS 3.3.5, "Diverse Actuation System (DAS) Manual Controls," Table 3.3.5-1, "DAS Manual Controls," footnote b; current TS 3.6.7, "Passive Containment Cooling System (PCS) – Shutdown," Applicability; and current TS 3.7.9, "Fuel Storage Pool Makeup Water Sources," LCO Notes 1, 2, and 3; Applicability, SR 3.7.9.1 Note, SR 3.7.9.2 Note, SR 3.7.9.3 Note, and SR 3.7.9.4 Note by deleting "calculated" with respect to decay heat.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. The proposed change provides less stringent TS requirements for the facility by not expressly specifying the method of determining the decay heat value. These less stringent requirements do not result in operations that significantly increase the probability of initiating an analyzed event, and do not alter assumptions relative to mitigation of an accident or transient event. The less restrictive requirements continue to ensure process variables, structures, systems, and components are maintained consistent with the safety analyses and licensing basis. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at

which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change will not reduce a margin of safety because it has no effect on any assumption of the safety analyses. Eliminating the imposition of single method of determining the decay heat value has no effect on or a margin of plant safety. “Calculating” the decay heat value remains a viable option. The change maintains requirements within the safety analyses and licensing basis. As such, there is no technical change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L15 SCE&G proposes to amend TS 3.4.8, "Minimum RCS Flow," SR 3.4.8.1 from "Verify that at least one RCP is in operation at ≥ 10% rated speed or equivalent," to "Verify that at least one RCP is in operation with total flow through the core ≥ 3,000 gpm."

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. The change involves revising the acceptance criteria of an existing surveillance requirement with no change in required system or device function. Surveillance acceptance criteria are not accident initiators nor involved with mitigation of the consequences of any accident. The proposed acceptance criteria ensure that the applicable analysis input assumptions are preserved. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

The proposed change revises the acceptance criteria of an existing surveillance requirement. However, the proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change will not reduce a margin of safety because it has no effect on any assumption of the safety analyses. While the surveillance requirement acceptance criteria is made less restrictive by removal of design margin that accounts for minimizing stress and wear, and increasing equipment life, and the expected operating limit on minimum RCP speed, this margin is more appropriately maintained in the design and in operating and surveillance procedures. Therefore, there is no significant reduction in a margin of safety.

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

L16 SCE&G proposes to amend current TS 3.4.10, "RCS Specific Activity," Actions by deleting Required Action B.1, which requires "Perform SR 3.4.10.2," within 4 hours.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. The proposed change provides less stringent TS actions for the facility. However, the less restrictive requirements continue to ensure process variables, structures, systems, and components are maintained consistent with the safety analyses and licensing basis. The performance of SR 3.4.10.2 is not related to an accident initiator nor credited with mitigation of the consequences of an accident. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

The proposed change will not reduce a margin of safety because it has no effect on any assumption of the safety analyses. The change maintains requirements within the safety analyses and licensing basis. The result of performing the additional surveillance does not provide any additional margin of safety; as such, eliminating the Required Action for performing the additional surveillance does not result in a significant reduction in a margin of safety.

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

L17 SCE&G proposes to amend TS as follows:

1. Current TS 3.5.2, "Core Makeup Tanks (CMTs) - Operating," Condition D is revised from "One CMT inoperable due to presence of noncondensible gases in one high point vent," to "One CMT inlet line with noncondensible gas volume not within limit."
2. Current TS 3.5.2, Required Action D.1 is revised from "Vent noncondensible gases," to “Restore CMT inlet line noncondensible gas volume to within limit.”
3. Current TS 3.5.4, "Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Operating," Condition C is revised from "Presence of noncondensible gases in the high point vent," to "PRHR HX inlet line noncondensible gas volume not within limit."
4. Current TS 3.5.4, Required Action C.1 is revised from "Vent noncondensible gases," to "Restore PRHR HX inlet line noncondensible gas volume to within limit."
5. Current TS 3.5.5, "Passive Residual Heat Removal Heat Exchanger (PRHR HX) – Shutdown, Reactor Coolant System (RCS) Intact," Condition C is

revised from "Presence of noncondensible gases in the high point vent," to "PRHR HX inlet line noncondensible gas volume not within limit."

6. Current TS 3.5.5, Required Action C.1 is revised from "Vent noncondensible gases," to "Restore PRHR HX inlet line noncondensible gas volume to within limit."
7. Current TS 3.5.6, "In-containment Refueling Water Storage Tank (IRWST) – Operating," Condition B is revised from "One IRWST injection line inoperable due to presence of noncondensible gases in one high point vent," to "One IRWST injection flow path with noncondensible gas volume in one squib valve outlet line pipe stub not within limit."
8. Current TS 3.5.6, Required Action B.1 is revised from "Vent noncondensible gases," to "Restore noncondensible gas volume in squib valve outlet line pipe stub to within limit."
9. Current TS 3.5.6, Condition C is revised from "One IRWST injection line inoperable due to presence of noncondensible gases in both high point vents," to "One IRWST injection flow path with noncondensible gas volume in both squib valve outlet line pipe stubs not within limit."
10. Current TS 3.5.6, Required Action C.1 is revised from "Vent noncondensible gases from one high point vent," to "Restore one squib valve outlet line pipe stub noncondensible gas volume to within limit."
11. Current TS 3.5.7, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 5," Condition B is revised from "Required IRWST injection line inoperable due to presence of noncondensible gases in one high point vent," to "Required IRWST injection flow path with noncondensible gas volume in one squib valve outlet line pipe stub not within limit."
12. Current TS 3.5.7, Required Action B.1 is revised from "Vent noncondensible gases," to "Restore noncondensible gas volume in squib valve outlet line pipe stub to within limit."
13. Current TS 3.5.7, Condition C is revised from "Required IRWST injection line inoperable due to presence of noncondensible gases in both high point vents," to "Required IRWST injection flow path with noncondensible gas volume in both squib valve outlet line pipe stubs not within limit."
14. Current TS 3.5.7, Required Action C.1 is revised from "Vent noncondensible gases from one high point vent," to "Restore one squib valve outlet line pipe stub noncondensible gas volume to within limit."
15. TS 3.5.8, "In-containment Refueling Water Storage Tank (IRWST) – Shutdown, MODE 6," Condition B is revised from "Required IRWST injection line inoperable due to presence of noncondensible gases in one high point vent," to "Required IRWST injection flow path with noncondensible gas volume in one squib valve outlet line pipe stub not within limit."
16. Current TS 3.5.8, Required Action B.1 is revised from "Vent noncondensible gases," to "Restore noncondensible gas volume in squib valve outlet line pipe

stub to within limit."

17. Current TS 3.5.8, Condition C is revised from "Required IRWST injection line inoperable due to presence of noncondensible gases in both high point vents," to "Required IRWST injection flow path with noncondensible gas volume in both squib valve outlet line pipe stubs not within limit."

18. Current TS 3.5.8, Required Action C.1 is revised from "Vent noncondensible gases from one high point vent," to "Restore one squib valve outlet line pipe stub noncondensible gas volume to within limit."

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant or a change in the methods governing normal plant operations. The proposed change provides less stringent TS requirements by not explicitly specifying the noncondensible gas volume limit; however, the requirement that noncondensible gas volume be within limit is not changed. These less stringent requirements do not result in operations that significantly increase the probability of initiating an analyzed event, and do not alter assumptions relative to mitigation of an accident or transient event. The less restrictive requirements continue to ensure process variables, structures, systems, and components are maintained consistent with the safety analyses and licensing basis. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

The proposed change will not reduce a margin of safety because it has no effect on any assumption of the safety analyses. The amended actions continue to assure that noncondensible gas volumes are maintained and restored to within acceptable limits. The change maintains requirements within the safety analyses and licensing basis. As such, there is no technical change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L18 SCE&G proposes to amend current TS 3.6.8, "Containment Penetrations," LCO 3.6.8.d.2 to allow the penetration flow path to be open provided it can be closed prior to steaming into the containment. In conjunction, current SR 3.6.8.3 as well as the corresponding containment Isolation function required in current TS 3.3.2, “Engineered Safety Feature Actuation System (ESFAS) Instrumentation," Table 3.3.2-1 Function 3.a for Modes 5 and 6, are removed. This removes requirements for Operable containment isolation signals in Modes 5 and 6, allowing manual operator actions to affect any required isolation prior to steaming into the containment.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change would remove requirements for Operable containment isolation signals in Modes 5 and 6, allowing manual operator action to effect any required isolation. The design provisions for instrumented closure signals are unaffected. The isolation status of the penetration flow path is not an initiator to any accident previously evaluated. As a result, the probability of an accident previously evaluated is not affected. The consequences of an accident with the valves open and capable of being closed prior to steaming into the containment are no different than the consequences of the same accident with the current requirements. The valves are currently allowed to be open, provided they can be isolated. The accident analysis assumes cooling water inventory is not lost in the event of an accident. Thus, closing the valves prior to steaming into the containment will ensure this assumption is met. As a result, the consequences of an accident previously evaluated are not affected by this change. The proposed change does not alter or prevent the ability of structures, systems, and components (SSCs) from performing their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits. The proposed change does not affect the source term, containment isolation, or radiological release assumptions used in evaluating the radiological consequences of an accident previously evaluated. Further, the proposed change does not increase the types or amounts of radioactive effluent that may be released offsite, nor significantly increase individual or

cumulative occupational/public radiation exposures. The proposed change is consistent with the safety analysis assumptions and resultant consequences.

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

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change to remove requirements for Operable containment isolation signals in Modes 5 and 6, and allowing manual operator action to isolate the purge valve penetration flow path prior to steaming into the containment, does not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The safety analysis acceptance criteria are not affected by this change. The proposed change will not result in plant operation in a configuration outside of the design basis. As such, there is no technical change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L19 SCE&G proposes to amend current TS 3.9.6 "pH Adjustment," LCO and current SR 3.9.6.1 trisodium phosphate (TSP) requirement from the volume requirement of 560 ft^3 to a weight requirement of 26,460 lbs. In addition, due to this change, Condition A and Required Action A.1 is changed to refer to "weight" in lieu of "volume."

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

Response: No.

The proposed change allows for a lesser volume over time consistent with expected compaction and agglomeration. While the total weight will remain constant and sufficient to assure safety analysis assumptions are met, the unintended requirement to maintain volume > 560 ft^3, even after compaction and agglomeration is made less restrictive. The TSP is not an initiator to any accident previously evaluated. As a result, the probability of an accident previously evaluated is not affected. The consequences of an accident with the changed TSP weight limit are no different than the consequences of the same accident with the current TSP limit. The accident analysis assumes a minimum of 26,460 lbs of TSP, and this value is being maintained in the TS. The assumed pH of 7.0 will be maintained using the proposed weight of TSP. This pH will continue to augment the retention of elemental iodine in the containment water, and thus reduce the iodine available to leak to the environment. As a result, the consequences of an accident previously evaluated are not affected by this change. The proposed change does not alter or prevent the ability of structures, systems, and components (SSCs) from performing their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits. The proposed change does not affect the source term, containment isolation, or radiological release assumptions used in evaluating the radiological consequences of an accident previously evaluated. Further, the proposed change does not increase the types or amounts of radioactive effluent that may be released offsite, nor significantly increase individual or cumulative occupational/public radiation exposures. The proposed change is consistent with the safety analysis assumptions and resultant consequences. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Response: No.

The proposed change to allow for a lesser volume over time consistent with expected compaction and agglomeration, while maintaining the total weight to assure safety analysis assumptions are met, does not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The safety analysis acceptance criteria are not affected by this change. The proposed change will not result in plant operation in a configuration outside of the design basis. As such, there is no technical change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L20 SCE&G proposes to amend current TS 3.7.2, "Main Steam Isolation Valves (MSIVs)," Condition D Note to allow separate Condition entry due to any inoperable valve covered by the LCO, not just the MSIVs.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The proposed change allows a separate Condition entry for each affected flow path. The failure of the main steam line flow path covered by the LCO to close is not an initiator to any accident previously evaluated. As a result, the probability of an accident previously evaluated is not affected. The consequences of an accident are not affected since the inoperability in the flow path is addressed to assure affected flow paths are isolated as assumed in the accident analysis. As a result, the consequences of an accident previously evaluated are not affected by this change. The proposed change does not alter or prevent the ability of structures, systems, and components from performing their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits. The proposed change does not affect the source term, containment isolation, or radiological release assumptions used in evaluating the radiological consequences of an accident previously evaluated. Further, the proposed change does not increase the types or amounts of radioactive effluent that may be released offsite, nor significantly increase individual or cumulative occupational/public radiation exposures. The proposed change is consistent with the safety analysis assumptions and resultant consequences. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR as a result of this change. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change to allow a separate Condition entry for each affected flow path does not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The safety analysis acceptance criteria are not affected by this change. The proposed change will not result in plant operation in a configuration outside of the design basis. As such, there is no technical change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L21 SCE&G proposes to amend TS 3.8.1, "DC Sources - Operating," by deleting SR 3.8.1.3 Note 2.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The Class 1E DC electrical power system, including associated battery chargers, is not an initiator to any accident sequence analyzed in the FSAR. Operation in accordance with the proposed TS ensures that the Class 1E DC electrical power system is capable of performing its function as described in the FSAR, therefore the mitigative functions supported by the Class 1E DC electrical power system will continue to provide the protection assumed by the accident analysis.

The proposed TS change does not involve any changes to structures, systems, or components (SSCs) and does not alter the method of operation or control of SSCs as described in the FSAR. The current assumptions in the safety analysis regarding accident initiators and mitigation of accidents are unaffected by this change. No additional failure modes or mechanisms are being introduced and the likelihood of previously analyzed failures remains unchanged. The integrity of fission product barriers, plant configuration, and operating procedures as described in the FSAR will not be affected by this change. Therefore, the consequences of previously analyzed accidents will not increase because of this change.

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

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. Any alteration in procedures will continue to ensure that the plant remains within analyzed limits, and no change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis.

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

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

   Response: No.

   Margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed change is acceptable because the operability of the Class 1E DC electrical power system is unaffected, there is no detrimental impact on any equipment design parameter, and the plant will still be required to operate within assumed conditions. Operation in accordance with the proposed TS ensures that the Class 1E DC electrical power system is capable of performing its function as described in the FSAR; therefore, the support of the Class 1E DC electrical power system to the plant response to analyzed events will continue to provide the margins of safety assumed by the analysis. Appropriate monitoring and maintenance, consistent with industry standards, will continue to be performed.

As such, there is no technical change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L22 SCE&G proposes to amend current TS 3.8.2, "DC Sources - Shutdown," by adding a new Condition A to address inoperable battery chargers.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The Class 1E DC electrical power system, including associated battery chargers, is not an initiator to any accident sequence analyzed in the FSAR. Operation in accordance with the proposed TS ensures that the Class 1E DC electrical power system is capable of performing its function as described in the FSAR, therefore the mitigative functions supported by the Class 1E DC electrical power system will continue to provide the protection assumed by the accident analysis.

   The proposed change does not involve any changes to structures, systems, or components (SSCs) and does not alter the method of operation or control of SSCs as described in the FSAR. The current assumptions in the safety analysis regarding accident initiators and mitigation of accidents are unaffected by this change. No additional failure modes or mechanisms are being introduced and the likelihood of previously analyzed failures remains unchanged.

   The integrity of fission product barriers, plant configuration, and operating procedures as described in the FSAR will not be affected by this change. Therefore, the consequences of previously analyzed accidents will not increase because of this change.

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

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. Any alteration in procedures will continue to ensure that the plant remains within

analyzed limits, and no change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis.

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

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

Response: No.

Margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed change is acceptable because the Operability of the Class 1E DC electrical power system is unaffected, there is no detrimental impact on any equipment design parameter, and the plant will still be required to operate within assumed conditions. Operation in accordance with the proposed TS ensures that the Class 1E DC electrical power system is capable of performing its function as described in the FSAR; therefore, the support of the Class 1E DC electrical power system to the plant response to analyzed events will continue to provide the margins of safety assumed by the analysis. Appropriate monitoring and maintenance, consistent with industry standards, will continue to be performed.

As such, there is no technical change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L23 SCE&G proposes to amend current TS 5.5.2, "Radioactive Effluent Control Program," to state that the provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Radioactive Effluents Control Program surveillance frequency.

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

Response: No.

A TS frequency for the determination of cumulative and projected dose contributions from radioactive effluents is not an initiator to any accident sequence analyzed in the FSAR. Operation in accordance with the proposed TS continues to ensure that initial conditions assumed in the accident analysis are maintained. The proposed change does not involve a modification to the physical configuration of the plant or change in the methods governing normal plant operation. The proposed change will not impose any new or different requirements or introduce a new accident initiator, accident precursor, or malfunction mechanism. Therefore, this change does not involve a significant

increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. Any alteration in procedures will continue to ensure that the plant remains within analyzed limits, and no change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   Margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed change, applying the 25% extension to the frequency of performing the monthly cumulative dose and projected dose calculations, will have no effect on the plant response to analyzed events and with therefore not impact a margin of safety. Operation in accordance with the proposed TS ensures that the plant response to analyzed events will continue to provide the margins of safety assumed by the analysis. Appropriate monitoring and maintenance, consistent with industry standards, will continue to be performed.

   As such, there is no functional change to the requirements and therefore, there is no significant reduction in a margin of safety.

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

L24 SCE&G proposes to amend current TS 5.5.3, "Inservice Testing Program," paragraph b from "The provisions of SR 3.0.2 are applicable to the above required Frequencies for performing inservice testing activities," to "The provisions of SR 3.0.2 are applicable to the above required Frequencies and other normal and accelerated Frequencies specified as 2 years or less in the Inservice Testing Program for performing inservice testing activities."

SCE&G has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, “Issuance of amendment,” as discussed below:

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

   Response: No.

   The frequency for inservice testing is not an initiator to any accident sequence analyzed in the FSAR, nor is it associated with any mitigative actions to reduce consequences. Operation in accordance with the proposed TS continues to ensure that initial conditions accident mitigative features assumed in the accident analysis are maintained. The proposed change does not involve a modification to the physical configuration of the plant or change in the methods governing normal plant operation. The proposed change will not impose any new or different requirements or introduce a new accident initiator, accident precursor, or malfunction mechanism. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

   Response: No.

   The proposed change does not involve a physical alteration of the plant as described in the FSAR. No new equipment is being introduced, and equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change will not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. Any alteration in procedures will continue to ensure that the plant remains within analyzed limits, and no change is being made to the procedures relied upon to respond to an off-normal event as described in the FSAR. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

   Response: No.

   The proposed change, applying the 25% extension to certain frequencies for performing inservice testing, 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. As such, there is no technical change to the requirements and therefore, there is no significant reduction in a margin of safety. Margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. Operation in accordance with the proposed TS ensures that the plant response to analyzed events will continue to provide the margins of safety assumed by the analysis. Appropriate monitoring and maintenance, consistent with industry standards, will continue to be performed. As such, there is no functional change to the requirements and therefore, there

is no significant reduction in a margin of safety.

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