UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

*General Directions: This model SE provides the format for an SE of LARs to adopt traveler TSTF-591. TSTF-591 was approved as part of the CLIIP. This model SE can also be used as a template for LARs adopting TSTF-591 that have significant variations and are not using the CLIIP. The **[bolded bracketed]** information shows text that should be filled in for the specific amendment. The italicized wording provides guidance on what should be included in each section.*

DRAFT MODEL SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO TSTF-591, "REVISE RISK-INFORMED COMPLETION TIME (RICT) PROGRAM"

AMENDMENT NO. **[XXX]** TO FACILITY OPERATING LICENSE NO. **[XXX-XX]**

AND AMENDMENT NO. **[XXX]** TO FACILITY OPERATING LICENSE NO. **[XXX-XX]**

[NAME OF LICENSEE]

[NAME OF FACILITY]

DOCKET NOS. 50-**[XXX]** AND 50-**[XXX]**

Application (i.e., initial and supplements)	Safety Evaluation Date
• **[Date], [ADAMS Accession No.]**	**[Date]**
	Principal Contributors to Safety Evaluation
	• **[Andrea Russell]**

1.0 PROPOSED CHANGES

[Name of licensee] (the licensee) requested changes to the technical specifications (TSs) for **[name of facility]** by license amendment request (LAR, application). In its application, the licensee requested that the U.S. Nuclear Regulatory Commission (NRC, the Commission) process the proposed amendment under the Consolidated Line Item Improvement Process (CLIIP). The proposed changes would revise the TS based on Technical Specifications Task Force (TSTF) Traveler TSTF-591, Revision 0, "Revise Risk-Informed Completion Time (RICT) Program" (TSTF-591) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22081A224), and the associated NRC staff safety evaluation (SE) of TSTF-591 (ML23262B230).

The proposed changes would revise the TS Section 5.5 Program, "Risk Informed Completion Time Program," by referencing RG 1.200, Revision 3, instead of Revision 2. The proposed

changes would also add a requirement in TS Section 5.6, “Reporting Requirements” for the licensee to submit a report to the NRC before calculating a RICT using an NDM.

Description of Risk-Informed Completion Time Program

The TS LCOs are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When an LCO is not met, the licensee must shut down the reactor or follow any remedial or required action (e.g., testing, maintenance, or repair activity) permitted by the TSs until the condition can be met. The remedial actions (i.e., ACTIONS) associated with an LCO contain Conditions that typically describe the ways in which the requirements of the LCO can fail to be met. Specified with each stated Condition are Required Action(s) and CTs. The CTs are referred to as the “front stops” in the context of this SE. For certain Conditions, the TS require exiting the Mode of Applicability of an LCO (i.e., shutdown the reactor).

The Topical Report NEI 06-09-A (ML12286A321) provides a methodology for extending existing CTs and thereby delay exiting the operational mode of applicability or taking Required Actions if risk is assessed and managed within the limits and programmatic requirements established by a RICT Program.

1.1 Proposed TS Changes to Adopt TSTF-591

TS 5.5.**[20]** Risk Informed Completion Time Program

TS 5.5.**[20]**, which describes the RICT program, is revised. Existing paragraph e would be replaced with the paragraph e below. Paragraphs f and g would be added.

e. A RICT calculation must include the following hazard groups: **[list specific hazards and the associated PRA models or alternate means of assessing the hazard for each applicable hazard group approved by NRC. For example, internal flood and internal events PRA model, internal fire PRA model, and seismic penalty factor]**. Changes to these means of assessing the hazard groups require prior NRC approval.

f. The PRA models used to calculate a RICT shall be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of Regulatory Guide 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities."

g. A report shall be submitted in accordance with Specification 5.6.**[X]** before a newly developed method is used to calculate a RICT.

TS 5.6.**[8]**, Risk Informed Completion Time Program Upgrade Report

A new specification, TS 5.6.**[8]**, would be added as follows:

Risk Informed Completion Time (RICT) Program Upgrade Report

A report describing newly developed methods and their implementation must be submitted following a probabilistic risk assessment (PRA) upgrade associated

with newly developed methods and prior to the first use of those methods to calculate a RICT. The report shall include:

a. The PRA models upgraded to include newly developed methods;

b. A description of the acceptability of the newly developed methods consistent with Section 5.2 of PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review;"

c. Any open findings from the peer-review of the implementation of the newly developed methods and how those findings were dispositioned; and

d. All changes to key assumptions related to newly developed methods or their implementation.

1.2 Additional Proposed TS Changes

{NOTE: Use this section if variations are proposed. Add additional subsections if needed. Editorial variations discussed below in section 1.2.1 do not warrant removal from the CLIIP and do not require any additional technical branches to be on the review. Variations discussed in section 1.2.2, may remove the LAR from the CLIIP and may require additional technical review depending on the significance of the variations.}

In addition to the changes proposed consistent with the traveler discussed in section 1.1, the licensee proposed the variation**[s]** below.

1.2.1 Editorial Variations

{NOTE: Use this section if the plant has different numbering/nomenclature or modify accordingly for other editorial changes made.}

The licensee noted that **[name of facility]** TSs have different numbering **[and nomenclature]** than standard technical specifications (STSs).

1.2.2 Other Variations

{NOTE: Use this section if the plant has variations other than editorial variations discussed in section 1.2.1.}

2.0 REGULATORY EVALUATION

2.1 Applicable Regulatory Requirements and Guidance

The regulation under Title 10 of the *Code of Federal Regulations* (10 CFR) 50.36(b) requires that:

> Each license authorizing operation of a … utilization facility … will include technical specifications. The technical specifications will be derived from the

> analyses and evaluation included in the safety analysis report, and amendments thereto, submitted pursuant to [10 CFR] 50.34 [“Contents of applications; technical information”]. The Commission may include such additional technical specifications as the Commission finds appropriate.

The categories of items required to be in the TSs are listed in 10 CFR 50.36(c).

The regulation at 10 CFR 50.36(c)(5), states that administrative controls are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner.

NRC Regulatory Guides (RGs) provide one way to ensure that the regulations continue to be met. The NRC staff considered during its review of the proposed changes, along with industry guidance endorsed by the NRC, the guidance in RG 1.200, Revision 3, “Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities,” December 2020 (ML20238B871).

- NUREG-0800, Revision 3, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR [light-water reactor] Edition” (SRP):

  - Chapter 19, Section 19.2, “Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis: General Guidance,” dated June 2007 (ML071700658).
  - Chapter 16, Section 16.0, “Technical Specifications,” March 2010 (ML100351425). The NRC staff’s review includes consideration of whether the proposed changes are consistent with the **[insert applicable NUREG from list in footnote][1]**
  - Chapter 16, Section 16.1, “Risk-Informed Decision Making: Technical Specifications,” March 2007 (ML070380228).

- NEI 06-09-A, Revision 0, “Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines” (ML063390639), provides guidance for risk-informed TS. The NRC staff issued a final SE approving NEI 06-09 on May 17, 2007 (ML071200238).

- NEI 17-07, Revision 2, "Performance of PRA Peer Reviews Using the ASME/ANS PRA Standard," provides guidance material for conducting and documenting a probabilistic risk assessment (PRA) peer review using the American Society of Mechanical Engineers (ASME)/American Nuclear Society (ANS) PRA Standard, issued August 2019 (ML19231A182).

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[1] • NRC NUREG-1430, “Standard Technical Specifications, Babcock and Wilcox Plants,” Volume 1, “Specifications,” and Volume 2, “Bases,” Revision 5, September 2021 (ML21272A363 and ML21272A370, respectively).
• NRC NUREG-1431, “Standard Technical Specifications, Westinghouse Plants,” Volume 1, “Specifications,” and Volume 2, “Bases,” Revision 5, September 2021 (ML21259A155 and ML21259A159, respectively).
• NRC NUREG-1432, “Standard Technical Specifications, Combustion Engineering Plants,” Volume 1, “Specifications,” and Volume 2, “Bases,” Revision 5, September 2021 (ML21258A421 and ML21258A424, respectively).
• NRC NUREG-1433, “Standard Technical Specifications, General Electric, BWR/4 Plants” Volume 1, “Specifications,” and Volume 2, “Bases,” Revision 5, September 2021 (ML21272A357 and ML21272A358, respectively).
• NRC NUREG-1434, “Standard Technical Specifications, General Electric, BWR/6 Plants” Volume 1, “Specifications,” and Volume 2, “Bases,” Revision 5, September 2021 (ML21271A582 and ML21271A596, respectively).

- PWR Owners' Group (PWROG) topical report PWROG-19027-NP, Revision 2, "Newly Developed Method Requirements and Peer Review," establishes the definitions, processes, and technical requirements necessary to implement newly developed methods, issued July 2020 (ML20213C660). RG 1.200, Revision 3, endorsed specified portions of PWROG-19027-NP.

3.0 TECHNICAL EVALUATION

3.1 Proposed TS Changes to Adopt TSTF-591

In accordance with traveler TSTF-591, the licensee proposes to replace the TS requirement to maintain and upgrade[2] the PRA in accordance with RG 1.200, Revision 2, with a requirement to follow RG 1.200, Revision 3. RG 1.200, Revision 3, does not change the factors used to assess PRA technical adequacy and acceptability. Revision 3 of RG 1.200 continues to include guidance to maintain and upgrade the PRA while adding a glossary of key terms, a list of hazards to be considered in the development and use of the PRA, and enhanced guidance related to key assumptions and sources of uncertainty. Furthermore, RG 1.200, Revision 3, does the following:

- Endorses, with NRC staff exceptions and clarifications, the ASME/ANS RA-S Case 1, "Case for ASME/ANS RA-Sb-2013 Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment of Nuclear Power Plant Applications," dated November 22, 2017.

- Endorses NEI 17-07, Revision 2, "Performance of PRA Peer Reviews Using the ASME/ANS PRA Standard," issued August 2019.

- Endorses the following portions of PWROG-19027-NP:
  - Process for the peer review of NDMs,
  - Process for determining whether a change to a PRA is classified as PRA maintenance or a PRA upgrade, and
  - Key definitions related to NDMs, PRA maintenance, and PRA upgrade.

The proposed language for TS 5.5.**[20]** paragraph e incorporates defined terms provided in the glossary of RG 1.200, Revision 3. The NRC staff concludes that the proposed changes using the defined terms provided in RG 1.200, Revision 3, do not introduce any technical discrepancies for the implementation of the RICT program.

The proposed change to add paragraph f to TS 5.5.**[20]** incorporates a TS requirement that PRA models used to calculate a RICT be maintained and upgraded in accordance with the processes endorsed in the regulatory positions of RG 1.200, Revision 3. RG 1.200 Regulatory Position C.2.2.2.2, states, in part:

> [a]n acceptable approach to performing a peer review for an NDM is the guidance in NEI 17-07, Revision 2. NEI 17-07, Revision 2, [as endorsed by RG

[2] Per RG 1.200, Revision 3, PRA upgrade is defined as: A change in the PRA that results in the applicability of one or more supporting requirements that were not previously included within the PRA (e.g., performing qualitative screening for Part 4 of ASME/ANS Level 1/LERF PRA Standard when the related high-level requirement was previously not applicable, or adding a new hazard model), an implementation of a PRA method in a different context, or the incorporation of a PRA method not previously used.

> 1.200, Revision 3,] states, in part, that if an NDM is deemed not technically acceptable in the NDM peer review report, or if at least one finding-level F&O on the NDM remain open, a licensee or applicant may not use it in a PRA supporting risk-informed licensing applications.

The report that will be submitted to the NRC staff for NDM use in the RICT program can only be used to describe NDMs that are technically acceptable with all the open F&Os resulting from the technical review of the NDM closed using an NRC-endorsed peer review process.

The proposed change to add paragraph g to TS 5.5.**[20]** incorporates a TS requirement for a licensee to submit a report before an NDM is used to calculate a RICT. RG 1.200, Revision 3, defines a consensus method/model as follows:

> **Consensus method/model**: In the context of risk-informed regulatory decisions, a method or model approach that the NRC has used or accepted for the specific risk-informed application for which it is proposed. A consensus method or model may also have a publicly available, published basis and may have been peer reviewed and widely adopted by an appropriate stakeholder group.

In response to RAI 2.a, example (c) provided, the TSTF stated, "[t]he appendix can be made available to the NRC to be loaded on ADAMS (no formal request of review or endorsement would be needed)." The use of consensus method(s) by licensees is governed within the guidance of RG 1.200, Revision 3. Consistent with the definition per RG 1.200, Revision 3, and provided above, a consensus method/model is one that has been used or accepted by the NRC for the specific risk-informed application for which it is proposed. Specifically, reporting of an NDM by a licensee under the requirements stipulated in TS 5.6.**[8]** does not justify the NDM to meet the definition of consensus/method/model for future use. Therefore, the NRC staff concludes that for an NDM to be reported to the NRC under the requirements stipulated in TS 5.6.**[8]**, it is not a consensus method or model is defined in RG 1.200, Revision 3.

Consistent with RG 1.200, Revision 3, if the NDM has been determined to be acceptable using NRC-endorsed processes, NRC staff action is not needed prior to the licensee's use of an NDM in a RICT calculation. The NRC staff finds that the proposed changes to TS 5.5.**[20]** and the addition of TS 5.6.**[8]** remains consistent with the guidance in RG 1.200, Revision 3, that also endorses NEI 17-07, Revision 2, and specific portions of PWROG-19027-NP. Section 4, Tables 1-7.2-1 through 1-7.2-7 of PWROG-19027-NP, as endorsed by the NRC staff, stipulates a list of technical supporting requirements that must be met to determine an NDM acceptable.

Furthermore, the RICT program is incorporated as a program into the Administrative Controls section of the TS. As described in 10 CFR 50.36(c)(5), administrative controls are the provisions relating to, among other things, recordkeeping and reporting necessary to assure operation of the facility in a safe manner, and each licensee shall submit any reports to the Commission pursuant to approved technical specifications as specified in 10 CFR 50.4.

3.1.1 CONCLUSION

The NRC staff concludes the proposed changes to TS 5.5.**[20]** and the addition of TS 5.6.**[8]** continue to ensure the PRA models used to calculate a RICT are maintained and upgraded by the licensee's appropriate use of endorsed guidance (i.e., the ASME/ANS PRA Standard requirements, and specific industry guidance that the NRC staff has determined are sufficient for determining the acceptability of PRA models and NDMs for use in the RICT program).

Furthermore, the NRC staff concludes that the addition of TS 5.6.**[8]** that describes the contents of a RICT program upgrade report to the NRC staff does not preclude any staff oversight of PRA changes performed to ensure the PRA model(s) continues to be maintained and upgraded consistent with RG 1.200, Revision 3. The NRC staff finds that the proposed changes are acceptable because they continue to ensure operation of the facility in a safe manner in accordance with 10 CFR 50.36(c)(5).

3.2 Additional Proposed Changes

{NOTE: Use this section if variations are proposed. Add additional subsections if needed. Variations evaluated in section 3.2.2 may remove the LAR from the CLIIP and may require additional technical review depending on the significance of the variations. Additionally, the variations may require additional regulations/guidance being included in the Regulatory Evaluation Section.}

3.2.1 Variations That Do Not Affect the Applicability of the Traveler

{NOTE: Use this section if the plant has different numbering/nomenclature or modify accordingly for other changes described in section 1.2.1 of this SE.}

The LAR noted that the **[name of facility]** TSs have different numbering **[and nomenclature]** than STS. The NRC staff finds that the different TS numbering **[and nomenclature]** changes proposed in the LAR are acceptable because they do not alter TS requirements.

3.2.2 Variations That Do Affect the Applicability of the Traveler

{NOTE: Use this section if the plant has variations other than changes discussed in section 3.2.1 of this SE.}

3.3 TS Change Consistency

The NRC staff reviewed the proposed TS changes for technical clarity and consistency with the existing requirements for customary terminology and formatting. The NRC staff finds that the proposed changes are consistent with chapter 16.0 of the SRP and are therefore acceptable.

4.0 CONCLUSION

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

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NOTICES AND ENVIRONMENTAL FINDINGS

RELATED TO

AMENDMENT NO. **[XXX]** TO FACILITY OPERATING LICENSE NO. **[XXX-XX]**

AND AMENDMENT NO. **[XXX]** TO FACILITY OPERATING LICENSE NO. **[XXX-XX]**

[NAME OF LICENSEE]

[NAME OF FACILITY]

DOCKET NOS. 50-**[XXX]** AND 50-**[XXX]**

Application (i.e., initial and supplements)	Safety Evaluation Date
• **[Date]**, **[ADAMS Accession No.]**	**[Date]**

1.0 INTRODUCTION

{NOTE: The PM should prepare this section.}

[Name of licensee] (the licensee) requested changes to the technical specifications (TSs) for **[name of facility]** by license amendment request (LAR, application). In its application, the licensee requested that the U.S. Nuclear Regulatory Commission (NRC, the Commission) process the proposed amendment under the Consolidated Line Item Improvement Process (CLIIP). The proposed changes would revise the TS based on Technical Specifications Task Force (TSTF) Traveler TSTF-591, Revision 0, "Revise Risk-Informed Completion Time (RICT) Program" (TSTF-591) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22081A224), and the associated NRC staff safety evaluation (SE) of TSTF-591 (ML23262B230).

2.0 STATE CONSULTATION

{NOTE: The PM should prepare this section.}

In accordance with the Commission's regulations, the **[Name of State]** State official was notified of the proposed issuance of the amendment on **[insert date]**. The State official had **[no]** comments. **[If comments were provided, they should be addressed here and modify language of section 3.0 below per SE Template for Power Reactors]**.

3.0 ENVIRONMENTAL CONSIDERATION

{NOTE: The PM should prepare this required section.}

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that

the amendment involves no significant hazards consideration, and there has been no public comment on such finding **[enter Federal Register citation (XX FR XXXX) and date]**. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.