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-589. TSTF-589 was approved as part of the CLIIP. This model SE can also be used as a template for LARs adopting TSTF-589 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-589, "ELIMINATE AUTOMATIC DIESEL GENERATOR START DURING SHUTDOWN"

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
	• **[Tarico Sweat]**

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-589, Revision 0, "Eliminate Automatic Diesel Generator [DG] Start During Shutdown" (TSTF-589) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22034A015), and the associated NRC staff safety evaluation (SE) of TSTF-589 (**[accession number only to be inserted when final SE is issued]**).

The proposed changes would eliminate the TS requirements for the automatic DG start and loading capability to be operable during shutdown. In addition, the amendment modifies which DG surveillance requirements (SRs) are required during shutdown.

System Description

The Class 1E alternating current (AC) electrical power system provides a reliable source of power to the engineered safety feature (ESF) systems. The design provides independence and redundancy to ensure a reliable source of power to the Class 1 E system. The AC electrical power system includes offsite power sources and Class 1E onsite standby power sources (i.e., DGs) that supply electrical power to the plant load groups, with each load group powered by an independent Class 1E ESF bus. Each ESF bus has connections to offsite power sources and one or more DGs.

DGs provide AC power during a loss of offsite power (LOOP). A DG starts automatically on a LOOP signal based on an ESF bus degraded voltage or undervoltage signal, or an ESF (safety injection) signal. After the DG starts, it automatically ties to its respective Class 1E ESF bus in case of LOOP signal, or coincident with, an ESF signal. In the event of a LOOP or LOOP coincident with an accident, the ESF electrical loads are automatically connected to the DG in time to provide for safe reactor shutdown and to mitigate the consequences of a design-basis accident such as a loss of coolant accident (LOCA).

1.1 Proposed TS Changes to Adopt TSTF-589

Proposed Changes to Instrumentation, TS 3.3

The phrase: "When the associated DG is required to be OPERABLE by LCO [Limiting Condition for Operation] 3.8.2, 'AC Sources - Shutdown'," would be deleted from the Applicability statement of the **[DG loss of power** OR **DG loss of voltage]** specification, **[**choose which TS is being changed: **TS 3.3.8, "Emergency Diesel Generator (EDG) Loss of Power Start (LOPS)" OR TS 3.3.5, "Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation" OR TS 3.3.6 "Diesel Generator (DG) - Loss of Voltage Start (LOVS) (Analog)"** OR **TS 3.3.7, "Diesel Generator (DG) - Loss of Voltage Start (LOVS) (Digital)"]**. The deleted phrase would change the LCO by no longer requiring the automatic start and loading capabilities for the DGs to be operable during shutdown.

Proposed Changes to Alternating Current Sources – Shutdown, TS 3.8.2

TS 3.8.1, "AC Sources - Operating," contains requirements on AC sources (offsite power and DGs) in Modes 1, 2, 3, and 4. SR 3.8.2.1 states that all of the TS 3.8.1 SRs are applicable during shutdown, except for a list of excepted SRs. SR 3.8.2.1 would be revised to state which of the TS 3.8.1 SRs *are* applicable instead of the TS 3.8.1 SRs that are *not* applicable.

Additionally, because the automatic start and loading capabilities of the DGs are no longer required to be operable during shutdown, the SRs which test the automatic start are no longer applicable during shutdown. Therefore, the following TS 3.8.1 SRs would no longer be applicable (required to be met or performed): SR 3.8.1.7, SR 3.8.1.11, SR 3.8.1.13, SR 3.8.1.15, and SR 3.8.1.18.

Additionally, TS SR 3.8.2.1 has a Note that lists the TS 3.8.1 SRs that must be met but are not required to be performed. The TS 3.8.2.1 Note stating which of the TS 3.8.1 SRs are not required to be performed would be revised to reflect the changes to the SRs that are not required to be met. The capability to meet the acceptance criteria in these SRs must be present, but the licensee would not be required to perform the SRs.

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

The categories of items required to be in the TSs are listed in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.36(c). The regulation at 10 CFR 50.36(c)(2) requires that TSs include LCOs. Per 10 CFR 50.36(c)(2)(i), LCOs "are the lowest functional capability or performance levels of equipment required for safe operation of the facility." The regulation also requires that when an LCO of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the TS until the condition can be met.

The regulation at 10 CFR 50.36(c)(3) requires that TSs include items in the category of SRs, which are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the LCOs will be met.

The NRC staff's guidance for the review of TSs is in Chapter 16.0, "Technical Specifications," of NUREG-0800, Revision 3, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR [Light-Water Reactor] Edition" (SRP), March 2010 (ML100351425). As described therein, the NRC staff has prepared standard TSs (STSs) for each of the LWR nuclear designs. Accordingly, the NRC staff's review includes consideration of whether the proposed changes are consistent with the **[insert applicable NUREG from list in footnote]**[1],

[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).

as modified by NRC-approved travelers. The NRC staff-approved TSTF-589, under the CLIIP on **[date and accession number to be inserted when final SE is issued]**.

3.0 TECHNICAL EVALUATION

3.1 Proposed TS Changes to Adopt TSTF-589

The NRC staff compared the proposed TS changes described in section 1.1 of this SE against the changes approved in TSTF-589. In accordance with the SRP chapter 16.0, the NRC staff determined that the TSTF-589 is applicable to the proposed TS changes because **[name of facility]** is a pressurized-water reactor (PWR) design plant and the NRC staff approved the TSTF-589 changes for PWR designs. The NRC staff finds that the proposed changes to the **[name of facility]** TSs described in section 1.1 of this SE are consistent with those found acceptable in TSTF-589.

In the NRC SE of TSTF-589, the NRC staff concluded that the proposal to eliminate the TS requirements for the automatic DG start and loading capability to be operable during shutdown and the modification of which DG SRs are applicable during shutdown, is acceptable. Testing of the DG automatic start and load capabilities are not required to demonstrate the operability of the DG during shutdown conditions, because the DG automatic start is not required to mitigate the consequences of postulated events in shutdown conditions. Therefore, 10 CFR 50.36(c)(2)(i) and 10 CFR 50.36 (c)(3) will continue to be met because the revised TS 3.3.**[X]**, and SR 3.8.2.1 will continue to assure that the necessary quality of the onsite standby power systems and components is maintained, that facility operation will be within safety limits, and that the associated LCOs will be met. Thus, the proposed changes continue to meet the requirements of 10 CFR 50.36(c) as discussed in section 3.0 of the NRC staff's SE of TSTF-589.

3.2 Additional Proposed TS 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 Editorial Variations

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

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 Other Variations

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

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.

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 alternating current sources TS based on Technical Specifications Task Force (TSTF) Traveler TSTF-589, Revision 0, "Eliminate Automatic Diesel Generator Start During Shutdown" (TSTF-589) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22034A015), and the associated NRC staff safety evaluation (SE) of TSTF-589 (**[ADAMS accession no. only to be inserted when final SE is issued]**).

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.