Southern Nuclear

Regulatory Affairs

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50-364 50-425

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U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant – Units 1 & 2
Vogtle Electric Generating Plant – Units 1 & 2
Application to Revise Technical Specifications to Adopt TSTF-589,
"Eliminate Automatic Diesel Generator Start During Shutdown"

Ladies and Gentlemen:

Pursuant to 10 CFR 50.90, Southern Nuclear Operating Company (SNC) requests a license amendment to the Joseph M. Farley Nuclear Plant (FNP) Units 1 and 2 Renewed Facility Operating Licenses NPF-2 and NPF-8 respectively, and the Vogtle Electric Generating Plant (VEGP), Units 1 & 2 Renewed Facility Operating Licenses, NPF-68 and NPF-81 respectively.

SNC requests adoption of TSTF-589, "Eliminate Automatic Diesel Generator Start During Shutdown," which is an approved change to the Standard Technical Specifications (STS), into the FNP, Units 1 and 2 and the VEGP, Units 1 and 2 TS. TSTF-589 eliminates the Technical Specification (TS) requirements for automatic diesel generator (DG) start and loading during shutdown.

The enclosure provides a description and assessment of the proposed changes. Attachment 1 provides the existing TS pages marked to show the proposed changes. Attachment 2 provides revised (clean) TS pages. Attachment 3 provides the existing TS Bases pages marked to show revised text associated with the proposed TS changes and is provided for information only.

SNC requests that the amendment be reviewed under the Consolidated Line Item Improvement Process (CLIIP). Approval of the proposed amendment is requested within 6 months of completion of the NRC's acceptance review. Once approved, the amendment shall be implemented within 90 days.

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated Alabama and Georgia State Officials.

This letter contains no NRC commitments. If you have any questions, please contact Ryan Joyce at 205.992.6468.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 28th day of June 2024.

Respectfully submitted,

Jamie M. Coleman
Director, Regulatory Affairs
Southern Nuclear Operating Company

JMC/was/cbg

Enclosure: Description and Assessment

Attachments: Proposed Technical Specification Changes (Mark-up)
Revised Technical Specification Pages
Proposed Technical Specification Bases Changes (Mark-up) – For Information Only

cc: Regional Administrator, Region ll
NRR Project Manager – Farley, Vogtle 1 & 2
Senior Resident Inspector – Farley, Vogtle 1 & 2
Director, Alabama Office of Radiation Control
Alabama - State Health Officer for the Department of Public Health
Director, Environmental Protection Division - State of Georgia
RType: Farley - CFA04.054; Vogtle - CVC7000

Joseph M. Farley Nuclear Plant – Units 1 & 2
Vogtle Electric Generating Plant – Units 1 & 2
Application to Revise Technical Specifications to Adopt TSTF-589, "Eliminate Automatic Diesel Generator Start During Shutdown"

Enclosure

Description and Assessment

1.0 DESCRIPTION

Southern Nuclear Operating Company (SNC) requests adoption of TSTF-589, "Eliminate Automatic Diesel Generator Start During Shutdown," which is an approved change to the Standard Technical Specifications (STS), into the Joseph M. Farley Nuclear Plant (FNP) Units 1 & 2 and Vogtle Electric Generating Plant (VEGP) Units 1 & 2 Technical Specifications (TS). TSTF-589 eliminates the TS requirements for automatic diesel generator (DG) start and loading during shutdown.

2.0 ASSESSMENT

2.1 Applicability of Safety Evaluation

SNC has reviewed the safety evaluation for TSTF-589 provided to the Technical Specifications Task Force in a letter dated September 11, 2023. This review included a review of the NRC staff's evaluation, as well as the information provided in TSTF-589. SNC has concluded that the justifications presented in TSTF-589 and the safety evaluation prepared by the NRC staff are applicable to FNP Units 1 and 2 and the VEGP Units 1 and 2 and justify this amendment for the incorporation of the changes to the FNP Units 1 and 2 and the VEGP Units 1 and 2 TS.

For VEGP, the existing TS 3.8.2, "AC Sources - Shutdown" requirements are applicable in Modes 5 and 6 but, unlike the STS, are not applicable during movement of irradiated fuel. This does not affect the applicability of the traveler to the VEGP TS.

For FNP, the existing SR 3.8.2.1 differs from the STS SR 3.8.2.1. The existing SR 3.8.2.1 lists the TS 3.8.1 SRs that are applicable and not applicable instead of only the 3.8.1 SRs that are not applicable. This difference does not affect the applicability of the traveler to the FNP TS.

Also, for VEGP, the existing SR 3.8.2.1 differs from the STS SR 3.8.2.1. The existing SR 3.8.2.1 lists the TS 3.8.1 SRs that are applicable instead of the TS 3.8.1 SRs that are not applicable. This difference does not affect the applicability of the traveler to the VEGP TS.

2.2 Variations

SNC is proposing the following variations from the TS changes described in TSTF-589 or the applicable parts of the NRC staff's safety evaluation.

In some cases, FNP and VEGP TS utilize different numbering than the STS on which TSTF-589 was based. SRs are shown in the below table only if their numbering differs from the STS.

STS Numbering	FNP Numbering	VEGP Numbering
3.8.1.5	NA	3.8.1.5
3.8.1.6	3.8.1.5	3.8.1.6
3.8.1.7	3.8.1.6	3.8.1.7
3.8.1.8	3.8.1.7	NA
3.8.1.9	3.8.1.8	3.8.1.8

STS Numbering	FNP Numbering	VEGP Numbering
3.8.1.10	3.8.1.18	3.8.1.9
3.8.1.11	3.8.1.9	3.8.1.10
3.8.1.12	3.8.1.10	3.8.1.11
3.8.1.13	3.8.1.11	3.8.1.12
3.8.1.14	3.8.1.12	3.8.1.13
3.8.1.15	3.8.1.13	3.8.1.14
3.8.1.16	3.8.1.14	3.8.1.15
3.8.1.17	3.8.1.15	3.8.1.16
3.8.1.18	3.8.1.16	3.8.1.17
3.8.1.19	3.8.1.17	3.8.1.18
3.8.1.20	3.8.1.19	3.8.1.20

These differences are administrative and do not affect the applicability of TSTF-589 to the FNP Units 1 and 2 and the VEGP Units 1 and 2 TS.

For FNP, the existing TS 3.3.5 is different from the STS TS 3.3.5. Specifically, the Applicability of FNP's TS 3.3.5 refers to Tables for applicability of the TS to the LCO Functions. Although contained in Tables, the Applicability portion of the Tables includes Modes 1, 2, 3, 4 and references a Table footnote that addresses the applicability when an associated diesel generator is required to be Operable by TS 3.8.2. This is equivalent to the STS Applicability. The Table footnote is proposed to be deleted in place of the marked-up Applicability in TSTF-589. This difference does not affect the applicability of the traveler to the FNP Units 1 and 2 TS.

For FNP, the existing SR 3.8.2.1 differs from the STS SR 3.8.2.1. The existing SR 3.8.2.1 contains differences in the applicable 3.8.1 SRs which must be met or performed. Specifically, SR 3.8.1.3 must be met but not performed for the STS. For FNP, SR 3.8.1.3 is not required to be met. Also, STS SR 3.8.1.5 is not applicable to FNP and does not appear in SR 3.8.2.1. Additionally, SR 3.8.1.18 in the STS must be met but not performed, however the equivalent FNP SR 3.8.1.16 is not required to be met. These differences do not affect the applicability of the traveler to the FNP Units 1 and 2 TS.

For VEGP, the existing TS 3.3.5 is different from the STS TS 3.3.5. Specifically, Condition E provides the Required Actions for an associated DG that is required to be OBERABLE by LCO 3.8.2. This provision does not directly appear in the STS. The STS contains one Condition (Condition C) that addresses DG OPERABILITY in both MODES 1 through 4 and MODES 5 and 6. Although the STS Condition is not changed by this TSTF, the related TS Bases remove the reference to a DG required to be OPERABLE in TS 3.8.2. To accomplish the same change, Condition E and its related TS Bases must be deleted from the VEGP TS 3.3.5. This difference does not affect the applicability of the traveler to the VEGP Units 1 and 2 TS.

For VEGP, the existing SR 3.8.2.1 differs from the STS SR 3.8.2.1. The existing SR 3.8.2.1 contains differences in the applicable 3.8.1 SRs which must be met or performed. Specifically, STS 3.8.1.8 is not applicable to VEGP and does not appear in SR 3.8.2.1. Also, SR 3.8.1.13 must be met but not performed for the STS. For VEGP, the equivalent SR 3.8.1.12 is not required to be met. Additionally, SR 3.8.1.18 in the STS must be met but not performed, however the equivalent VEGP SR 3.8.1.17 is not

required to be met. These differences do not affect the applicability of the traveler to the VEGP Units 1 and 2 TS.

For VEGP, the existing SR 3.8.2.1 lists one different applicable 3.8.1 SR than the STS. VEGP has SR 3.8.1.19 to verify the fuel transfer pump transfers fuel via a cross connect line. This SR is not contained in the STS. VEGP SR 3.8.1.19 must be met, but not performed in SR 3.8.2.1. This difference does not affect the applicability of the traveler to the VEGP Units 1 and 2 TS.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration Analysis

Southern Nuclear Operating Company (SNC) requests adoption of TSTF-589, "Eliminate Automatic Diesel Generator Start During Shutdown," which is an approved change to the Standard Technical Specifications (STS), into the Joseph M. Farley Nuclear Plant (FNP), Units 1 & 2 and Vogtle Electric Generating Plant (VEGP), Units 1 and 2 Technical Specifications (TS). TSTF-589 eliminates the TS requirements for automatic diesel generator (DG) start and loading during shutdown.

SNC has evaluated if a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No

The proposed change eliminates the TS requirements for automatic DG start and loading during shutdown.

The proposed change does not alter any design function assumed in the accident analysis or the capability of any structure, system, or component (SSC) of the plant to perform a design function assumed in the accident analysis. The analysis of accidents initiated during shutdown does not assume a loss of offsite power or the automatic start and loading of a DG during shutdown. Therefore, the proposed change does not affect the probability of an accident previously evaluated. Automatic detection of a loss of power, automatic load shedding of the Engineering Safety Feature (ESF) busses, and automatic start and loading of a DG onto the ESF busses is not assumed to mitigate the consequences of any previously evaluated accident initiated during shutdown. As a result, there is no impact on the consequences of any accident 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 amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The proposed change eliminates the TS requirements for automatic DG start and loading during shutdown.

The proposed change does not affect the ability of any SSC to perform the design functions assumed in the accident analysis. The proposed change does not create any credible new failure mechanisms, malfunctions, or accident initiators not considered in the design and licensing bases that would have been considered a design basis accident in the Updated Final Safety Analysis Report (UFSAR) had it been previously identified.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No

The proposed change eliminates the TS requirements for automatic DG start and loading during shutdown.

The proposed change does not alter a design basis or safety limit (i.e., the controlling numerical value for a parameter established in the UFSAR or the license) and does not affect any conservatism in the evaluation and analysis methods that are used to demonstrate compliance with regulatory and licensing requirements. As a result, the margin of safety is not significantly reduced.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, SNC concludes 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.

3.2 Conclusion

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) 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.

4.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to 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, 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, 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), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

Joseph M. Farley Nuclear Plant – Units 1 & 2
Vogtle Electric Generating Plant – Units 1 & 2
Application to Revise Technical Specifications to Adopt TSTF-589, "Eliminate Automatic Diesel Generator Start During Shutdown"

Attachment 1

FNP Units 1&2 Proposed Technical Specification Changes (Markup)

VEGP Units 1&2 Proposed Technical Specification Changes (Markup)

Table 3.3.5-1 (page 1 of 1)
Loss of Power Diesel Generator Start Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRAIN	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT
1. 4.16 kV Emergency Bus Loss of Voltage DG Start	1,2,3,4~~, (a)~~	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	≥ 3222 V and ≤ 3418 V	≥ 3255 V
2. 4.16 kV Emergency Bus Degraded Grid Voltage Actuation	1,2,3,4~~, (a)~~	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	≥ 3638 V and ≤ 3749 V	≥ 3675 V
3. 4.16 kV Emergency Bus Degraged Grid Voltage Alarm	1,2,3,4	1	SR 3.3.5.1 SR 3.3.5.2	≥ 3835 V	≥ 3850 V

~~(a) When associated DG is required to be OPERABLE by LCO 3.8.2, "AC Sources - Shutdown."~~

Table 3.3.5-2 (page 1 of 1)
Loss of Power Diesel Generator Start Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRAIN	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	DELAY TIME
1. 4.16 kV Emergency Bus Loss of Voltage DG Start	1,2,3,4~~, (a)~~	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	≥ 3222 V and ≤ 3418 V	NA
2. 4.16 kV Emergency Bus Degraded Grid Voltage Actuation	1,2,3,4~~, (a)~~	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	Bus 1F: ≥ 3761 V Bus 1G: ≥ 3752 V Bus 2F: ≥ 3757 V Bus 2G: ≥ 3778 V	≤ 11.4 sec ≤ 11.4 sec ≤ 9.9 sec ≤ 9.9 sec

~~(a) When associated DG is required to be OPERABLE by LCO 3.8.2, "AC Sources - Shutdown."~~

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.2.1	----------NOTE---------- The following SRs are applicable but are not required to be performed: SR 3.8.1.8, ~~SR 3.8.1.9, SR 3.8.1.11,~~ SR 3.8.1.12, ~~SR 3.8.1.13,~~ SR 3.8.1.14, and SR 3.8.1.18. ----------	
	For AC sources required to be OPERABLE, the ~~SRs of Specification 3.8.1, "AC Sources — Operating," except SR 3.8.1.3, SR 3.8.1.7, SR 3.8.1.10, SR 3.8.1.15, SR 3.8.1.16, SR 3.8.1.17, and SR 3.8.1.19, are applicable. The~~ following SRs are applicable and required to be performed: SR 3.8.1.1, SR 3.8.1.2, SR 3.8.1.4, and SR 3.8.1.5~~, and SR 3.8.1.6~~.	In accordance with applicable SRs

3.3 INSTRUMENTATION

3.3.5 4.16 kV ESF Bus Loss of Power (LOP) Instrumentation

LCO 3.3.5 Four channels per bus of the loss of voltage Function and four channels per bus of the degraded voltage Function shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4~~,~~
~~When associated Diesel Generator is required to be OPERABLE by LCO 3.8.2, "AC Sources — Shutdown."~~

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with only one channel on one or both buses inoperable.	----------NOTE---------- A channel may be bypassed for up to 4 hours for surveillance testing. ---------- A.1 Place channel in trip.	6 hours
B. One or more Functions with two or more channels on one bus inoperable.	B.1 Restore at least three channels to OPERABLE status.	12 hours
C. One or more Functions with two or more channels on two buses inoperable.	C.1 Restore at least three channels on one bus to OPERABLE status.	1 hour

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Actions and associated Completion Times not met in MODES 1, 2, 3, or 4.	D.1 Be in MODE 3. AND D.2 Be in MODE 5.	6 hours 36 hours
~~E. Required Action and associated Completion Time not met when the associated DG is required OPERABLE by LCO 3.8.2.~~	~~E.1 Enter applicable Condition(s) and Required Action(s) for the associated DG made inoperable by LOP DG start instrumentation.~~	~~Immediately~~

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.5.1	Perform COT.	In accordance with the Surveillance Frequency Control Program
SR 3.3.5.2	Perform CHANNEL CALIBRATION with Nominal Trip Setpoint and Allowable Value as follows: A. Loss of voltage Allowable Value ≥ 2958.2 V with a time delay of ≤ 0.8 second. Loss of voltage Nominal Trip Setpoint 2975 V with a time delay of ≤ 0.8 second. B. Degraded voltage Allowable Value ≥ 3729.2 V with a time delay of ≤ 20 seconds. Degraded voltage Nominal Trip Setpoint 3746 V with a time delay of ≤ 20 seconds.	In accordance with the Surveillance Frequency Control Program

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.2.1	----------NOTE---------- The following SRs are applicable but not required to be performed: SR 3.8.1.3 SR 3.8.1.8 SR 3.8.1.9 ~~SR 3.8.1.10 (except 3.8.1.10.c.2)~~ SR 3.8.1.13 ~~SR 3.8.1.14~~ SR 3.8.1.15 SR 3.8.1.19 ----------	
	For AC sources required to be OPERABLE, the following SRs of Specification 3.8.1 are applicable: SR 3.8.1.1 SR 3.8.1.2 SR 3.8.1.3 (see Note) SR 3.8.1.4 SR 3.8.1.5 SR 3.8.1.6 ~~SR 3.8.1.7~~ SR 3.8.1.8 (see Note) SR 3.8.1.9 (see Note) ~~SR 3.8.1.10 (except 3.8.1.10.c2) (see Note)~~ SR 3.8.1.13 (see Note) ~~SR 3.8.1.14 (see Note)~~ SR 3.8.1.15 (see Note) SR 3.8.1.19 (see Note)	In accordance with applicable SRs

Joseph M. Farley Nuclear Plant – Units 1 & 2
Vogtle Electric Generating Plant – Units 1 & 2
Application to Revise Technical Specifications to Adopt TSTF-589, "Eliminate Automatic Diesel Generator Start During Shutdown"

Attachment 2

Revised FNP Units 1&2 Technical Specification Pages

Revised VEGP Units 1&2 Technical Specification Pages

Table 3.3.5-1 (page 1 of 1)
Loss of Power Diesel Generator Start Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRAIN	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	TRIP SETPOINT
1. 4.16 kV Emergency Bus Loss of Voltage DG Start	1,2,3,4	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	≥ 3222 V and ≤ 3418 V	≥ 3255 V
2. 4.16 kV Emergency Bus Degraded Grid Voltage Actuation	1,2,3,4	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	≥ 3638 V and ≤ 3749 V	≥ 3675 V
3. 4.16 kV Emergency Bus Degraged Grid Voltage Alarm	1,2,3,4	1	SR 3.3.5.1 SR 3.3.5.2	≥ 3835 V	≥ 3850 V

Table 3.3.5-2 (page 1 of 1)
Loss of Power Diesel Generator Start Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRAIN	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE	DELAY TIME
1. 4.16 kV Emergency Bus Loss of Voltage DG Start	1,2,3,4	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	≥ 3222 V and ≤ 3418 V	NA
2. 4.16 kV Emergency Bus Degraded Grid Voltage Actuation	1,2,3,4	3	SR 3.3.5.1 SR 3.3.5.2 SR 3.3.5.3	Bus 1F: ≥ 3761 V Bus 1G: ≥ 3752 V Bus 2F: ≥ 3757 V Bus 2G: ≥ 3778 V	≤ 11.4 sec ≤ 11.4 sec ≤ 9.9 sec ≤ 9.9 sec

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.2.1	----------NOTE---------- The following SRs are applicable but are not required to be performed: SR 3.8.1.8, SR 3.8.1.12, SR 3.8.1.14, and SR 3.8.1.18. ----------	
	For AC sources required to be OPERABLE, the following SRs are applicable and required to be performed: SR 3.8.1.1, SR 3.8.1.2, SR 3.8.1.4, and SR 3.8.1.5.	In accordance with applicable SRs

3.3 INSTRUMENTATION

3.3.5 4.16 kV ESF Bus Loss of Power (LOP) Instrumentation

LCO 3.3.5 Four channels per bus of the loss of voltage Function and four channels per bus of the degraded voltage Function shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with only one channel on one or both buses inoperable.	----------NOTE---------- A channel may be bypassed for up to 4 hours for surveillance testing. ---------- A.1 Place channel in trip.	6 hours
B. One or more Functions with two or more channels on one bus inoperable.	B.1 Restore at least three channels to OPERABLE status.	12 hours
C. One or more Functions with two or more channels on two buses inoperable.	C.1 Restore at least three channels on one bus to OPERABLE status.	1 hour

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Actions and associated Completion Times not met in MODES 1, 2, 3, or 4.	D.1 Be in MODE 3. AND D.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.5.1	Perform COT.	In accordance with the Surveillance Frequency Control Program
SR 3.3.5.2	Perform CHANNEL CALIBRATION with Nominal Trip Setpoint and Allowable Value as follows: A. Loss of voltage Allowable Value ≥ 2912 V with a time delay of ≤ 0.8 second. Loss of voltage Nominal Trip Setpoint 2975 V with a time delay of ≤ 0.8 second. B. Degraded voltage Allowable Value ≥ 3683 V with a time delay of ≤ 20 seconds. Degraded voltage Nominal Trip Setpoint 3746 V with a time delay of ≤ 20 seconds.	In accordance with the Surveillance Frequency Control Program

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.2.1	----------NOTE---------- The following SRs are applicable but not required to be performed: SR 3.8.1.3 SR 3.8.1.8 SR 3.8.1.9 SR 3.8.1.13 SR 3.8.1.15 SR 3.8.1.19 ---------- For AC sources required to be OPERABLE, the following SRs of Specification 3.8.1 are applicable: SR 3.8.1.1 SR 3.8.1.2 SR 3.8.1.3 (see Note) SR 3.8.1.4 SR 3.8.1.5 SR 3.8.1.6 SR 3.8.1.8 (see Note) SR 3.8.1.9 (see Note) SR 3.8.1.13 (see Note) SR 3.8.1.15 (see Note) SR 3.8.1.19 (see Note)	In accordance with applicable SRs

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Attachment 3

FNP Proposed Technical Specification Bases Changes (Mark-up) – For Information Only

VEGP Proposed Technical Specification Bases Changes (Mark-up) – For Information Only

BASES

APPLICABLE SAFETY ANALYSES (continued)

The delay times assumed in the safety analysis for the ESF equipment bound the 12 second DG start delay and include the appropriate sequencing delay, if applicable. The response times for ESFAS actuated equipment in LCO 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," include the appropriate DG loading and sequencing delay.

The LOP DG start instrumentation channels satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii).

LCO

The LCO for LOP DG start instrumentation requires that three channels per train of both the loss of voltage and degraded grid voltage actuation Functions shall be OPERABLE in MODES 1, 2, 3, and 4 when the LOP DG start instrumentation supports safety systems associated with the ESFAS. ~~In MODES 5 and 6, the three channels must be OPERABLE whenever the associated DG is required to be OPERABLE to ensure that the automatic start of the DG is available when needed.~~ Loss of the LOP DG Start Instrumentation Function could result in the delay of safety systems initiation when required. This could lead to unacceptable consequences during accidents. During the loss of offsite power the DG powers the motor driven auxiliary feedwater pumps. Failure of these pumps to start would leave only one turbine driven pump, as well as an increased potential for a loss of decay heat removal through the secondary system.

In addition, the LCO requires one channel of the degraded grid alarm function per train of 4.16 kV emergency buses to be OPERABLE in MODES 1, 2, 3, and 4. The required alarm channels include the Digital Voltmeter Relay Contacts (LO-27V) on buses F and G and the associated alarm annunciators WE2, VE2 (Unit 1) and YE2, ZE2 (Unit 2). The alarm channels provide assurance that manual actions are taken to restore bus voltage and protect the required ESF LOCA loads from a degraded grid voltage condition.

APPLICABILITY

The LOP DG Start Instrumentation Functions are required in MODES 1, 2, 3, and 4 because ESF Functions are designed to provide protection in these MODES. ~~Actuation in MODE 5 or 6 is required whenever the required DG must be OPERABLE so that it can perform its function on an LOP or degraded power to the vital bus.~~In MODES 5 and 6, automatic start of an EDG is not assumed in the applicable safety analyses.

(continued)

BASES

ACTIONS

A.1 (continued)

A Note is added to allow bypassing an inoperable channel for up to 4 hours for surveillance testing of other channels. This allowance is made where bypassing the channel does not cause an actuation and where at least two other channels are monitoring that parameter.

The specified Completion Time and time allowed for bypassing one channel are reasonable considering the Function remains fully OPERABLE on each train and the low probability of an event occurring during these intervals.

B.1

Condition B applies to LOP Functions 1 and 2 when two or more loss of voltage or degraded voltage channels on a single train are inoperable.

A Note is added to Condition B indicating that it is only applicable to Functions 1 and 2.

Required Action B.1 requires restoring all but one channel on a train to OPERABLE status. With a single inoperable channel remaining on a train, Condition A is applicable. The 1 hour Completion Time should allow ample time to repair most failures and takes into account the low probability of an event requiring an LOP start occurring during this interval.

C.1

Condition C applies to each of the LOP DG start Functions when the Required Action and associated Completion Time for Condition A or B are not met.

In these circumstances the Conditions specified in LCO 3.8.1, "AC Sources — Operating," ~~or LCO 3.8.2, "AC Sources — Shutdown,"~~ for the DG made inoperable by failure of the LOP DG start instrumentation are required to be entered immediately. The actions of those LCOs provide for adequate compensatory actions to assure unit safety.

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

and maintenance activities must be conducted provided an acceptable level of risk is not exceeded. During MODES 5 and 6, performance of a significant number of required testing and maintenance activities is also required. In MODES 5 and 6, the activities are generally planned and administratively controlled. Relaxations from MODE 1, 2, 3, and 4 LCO requirements are acceptable during shutdown modes based on:

a. The fact that time in an outage is limited. This is a risk prudent goal as well as a utility economic consideration.

b. Requiring appropriate compensatory measures for certain conditions. These may include administrative controls, reliance on systems that do not necessarily meet typical design requirements applied to systems credited in operating MODE analyses, or both.

c. Prudent utility consideration of the risk associated with multiple activities that could affect multiple systems.

d. Maintaining, to the extent practical, the ability to perform required functions (even if not meeting MODE 1, 2, 3, and 4 OPERABILITY requirements) with systems assumed to function during an event.

In the event of an accident during shutdown, this LCO ensures the capability to support systems necessary to avoid immediate difficulty, assuming either a loss of all offsite power or a loss of all onsite diesel generator (DG) power.

The AC sources satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii).

LCO

One offsite circuit capable of supplying the onsite Class 1E power distribution subsystem(s) of LCO 3.8.10, "Distribution Systems — Shutdown," ensures that all required loads are powered from offsite power. An OPERABLE DG (1-2A, 1C, or 1(2)B), associated with the distribution system train required to be OPERABLE by LCO 3.8.10, ensures a diverse power source is available to provide electrical power support, assuming a loss of the offsite circuit. Together, OPERABILITY of the required offsite circuit and the ability to manually start a DG ensures the availability of sufficient AC sources to operate the unit in a safe manner and to mitigate the consequences of postulated events during shutdown (e.g., fuel handling accidents).

(continued)

BASES

LCO (continued)

The qualified offsite circuit must be capable of maintaining rated frequency and voltage, and accepting required loads during an accident, while connected to the Engineered Safety Feature (ESF) bus(es). Qualified offsite circuits are those that are described in the FSAR and are part of the licensing basis for the unit.

A qualified offsite circuit between the transmission network and the onsite system may consist of any combination that includes one of the six transmission lines normally supplying the 230 and 500 kV switchyards and one qualified circuit from the 230 kV switchyard to the Class 1E buses via Startup Auxiliary Transformers 1A (2A) and 1B (2B). The one transmission line may be shared between Unit 1 and 2. If the transmission line is 500 kV, one 500/230 kV Autotransformer connecting the 500 and 230 kV switchyards is available. Any combination of 500 and 230 kV circuit breakers required to complete the qualified circuit is permissible.

The DG must be capable of being manually started~~starting~~, accelerating to rated speed and voltage, ~~and~~ connecting to its respective ESF bus, and ~~on detection of bus undervoltage. This sequence must be accomplished within 12 seconds. The DG must be capable of~~ accepting the required loads manually~~, and continue to operate until offsite power can be restored to the ESF buses. These capabilities are required to be met from a variety of initial conditions such as DG in standby with the engine hot and DG in standby at ambient conditions~~.

~~Proper sequencer operation to sense loss of power or degraded voltage, initiate tripping of ESF bus offsite breakers and initiate DG start and DG output breaker closure and sequencing of shutdown loads are required functions for a DG to be considered OPERABLE.~~

It is acceptable for trains to be cross tied during shutdown conditions, allowing a single offsite power circuit to supply both required trains.

APPLICABILITY

The AC sources required to be OPERABLE in MODES 5 and 6 and during movement of irradiated fuel assemblies provide assurance that:

(continued)

BASES

ACTIONS

A.2.1, A.2.2, A.2.3, A.2.4, B.1, B.2, B.3, and B.4 (continued)

Suspension of these activities does not preclude completion of actions to establish a safe conservative condition. These actions minimize the probability or the occurrence of postulated events. It is further required to immediately initiate action to restore the required AC sources and to continue this action until restoration is accomplished in order to provide the necessary AC power to the unit safety systems.

The Completion Time of immediately is consistent with the required times for actions requiring prompt attention. The restoration of the required AC electrical power sources should be completed as quickly as possible in order to minimize the time during which the unit safety systems may be without sufficient power.

Pursuant to LCO 3.0.6, the Distribution System's ACTIONS would not be entered even if all AC sources to it are inoperable, resulting in de-energization. Therefore, the Required Actions of Condition A are modified by a Note to indicate that when Condition A is entered with no AC power to any required ESF bus, the ACTIONS for LCO 3.8.10 must be immediately entered. This Note allows Condition A to provide requirements for the loss of the offsite circuit, whether or not a train is de-energized. LCO 3.8.10 would provide the appropriate restrictions for the situation involving a de-energized train.

SURVEILLANCE REQUIREMENTS

SR 3.8.2.1

SR 3.8.2.1 requires the SRs from LCO 3.8.1 that are necessary for ensuring the OPERABILITY of the AC sources in other than MODES 1, 2, 3, and 4. SR 3.8.1.7 is not required to be met since only one offsite circuit is required to be OPERABLE. SR 3.8.1.3 is not required to be met because the required OPERABLE DG(s) is not required to undergo periods of being synchronized to the offsite circuit. SR 3.8.1.19 is excepted because starting independence is not required with the DG(s) that is not required to be operable. In addition, SR 3.8.1.6, SR 3.8.1.9~~.C.2~~, SR 3.8.1.10, SR 3.8.1.11, SR 3.8.1.13, SR 3.8.1.15, SR 3.8.1.16, and SR 3.8.1.17 are not required to be met because DG start and load within a specified time and response on an offsite power or ECCS initiation signal is not assumed in the accident analyses. ~~the required operable DG is not required to respond to an SI signal or to have loads automatically sequenced on the associated ESF bus during MODES 5 and 6.~~

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.2.1 (continued)

This SR is modified by a Note which. ~~The reason for the Note is to~~ precludes requiring the OPERABLE DG(s) from being paralleled with the offsite power network or otherwise rendered inoperable during performance of SRs, and to preclude deenergizing a required 4160 V ESF bus or disconnecting a required offsite circuit during performance of SRs. With limited AC sources available, a single event could compromise both the required circuit and the DG. It is the intent that the DG and offsite circuit ~~these SRs~~ must still be capable of satisfying the acceptance criteria in these SRs~~being met~~, but actual performance is not required during periods when the DG and offsite circuit is required to be OPERABLE. Therefore, if the surveillance were not performed within the required frequency (plus the extension allowed by SR 3.0.2) but the DG was required OPERABLE to meet LCO 3.8.2, it would not constitute a failure of the SR or failure to meet the LCO as described in Example 1.4-3 in Section 1.4 of these Technical Specifications. Refer to the corresponding Bases for LCO 3.8.1 for a discussion of each SR.

REFERENCES None.

BASES

APPLICABLE SAFETY ANALYSES (continued)

Accident analyses credit the loading of the DG based on the loss of offsite power during a loss of coolant accident (LOCA). The actual DG start has historically been associated with the ESFAS actuation. The DG loading has been included in the delay time associated with each safety system component requiring DG supplied power following a loss of offsite power. The analyses assume a non-mechanistic DG loading, which does not explicitly account for each individual component of loss of power detection and subsequent actions.

The required channels of LOP instrumentation, in conjunction with the ESF systems powered from the DGs, and the turbine-driven Auxiliary Feedwater Pump provide unit protection in the event of any of the analyzed accidents discussed in Reference 2, in which a loss of offsite power is assumed.

The delay times assumed in the safety analysis for the ESF equipment include the DG start delay, and the appropriate sequencing delay, if applicable. The response times for ESFAS actuated equipment in LCO 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," include the appropriate DG loading and sequencing delay. The short time delays used in conjunction with the loss of voltage and degraded voltage bistables are chosen to preclude sequence initiation due to momentary voltage fluctuations. The undervoltage sensing bistable time delays are nominal values and are not included in the safety analyses.

The LOP instrumentation channels satisfy Criterion 3 of 10 CFR 50.36 (c)(2)(ii).

LCO

The LCO for LOP instrumentation requires that four channels per bus of both the loss of voltage and degraded voltage Functions shall be OPERABLE in MODES 1, 2, 3, and 4 when the LOP instrumentation supports safety systems associated with the ESFAS. ~~In MODES 5 and 6, the four channels must be OPERABLE whenever the associated DG is required to be OPERABLE to ensure that the automatic start of the DG is available when needed.~~ Loss of the LOP instrumentation Function could result in the delay of safety systems initiation when required. This could lead to unacceptable consequences during accidents. During the loss of offsite power the DG powers the motor driven auxiliary feedwater pumps. Failure of these pumps to start would leave only one turbine driven pump, as well as an increased potential for a loss of decay heat removal through the secondary system.

(continued)

BASES (continued)

APPLICABILITY

The LOP Instrumentation Functions are required in MODES 1, 2, 3, and 4 because ESF Functions are designed to provide protection in these MODES. ~~Actuation in MODE 5 or 6 is required whenever the required DG must be OPERABLE so that it can perform its function on an LOP or degraded power to the vital bus.~~In MODES 5 and 6, automatic start of a DG is not assumed in the applicable safety analyses.

ACTIONS

In the event a channel's Trip Setpoint is found nonconservative with respect to the Allowable Value, or the channel is found inoperable, then the function that channel provides must be declared inoperable and the LCO Condition entered for the particular protection function affected.

Because the required channels are specified on a per bus basis, the Condition may be entered separately for each bus as appropriate.

A Note has been added in the ACTIONS to clarify the application of Completion Time rules. The Conditions of this Specification may be entered independently for each Function listed in the LCO. The Completion Time(s) of the inoperable channel(s) of a Function will be tracked separately for each Function starting from the time the Condition was entered for that Function.

A.1

Condition A applies to the LOP Function with only one loss of voltage and/or degraded voltage channel on one or both buses inoperable.

If one channel is inoperable, Required Action A.1 requires that channel to be placed in trip within 6 hours. With a channel in trip, the LOP instrumentation channels are configured to provide a one-out-of-three logic to initiate a trip of the incoming offsite power.

A Note is added to allow bypassing an inoperable channel or the channel to be tested for up to 4 hours for surveillance testing of the remaining OPERABLE channels. This allowance is made where bypassing the channel does not cause an actuation and where at least two other channels are monitoring that parameter.

(continued)

BASES

ACTIONS (continued)

C.1

Condition C applies when one or more functions with two or more channels are inoperable on both ESF buses. Once in this Condition the affected instrument function (loss of or degraded voltage) may no longer be single failure proof or may no longer be functional on both ESF buses. In this case, operation in the Mode of applicability must be limited. Condition C allows 1 hour to restore the instrument function to the capability of continued operation in Condition A or B. The 1 hour Completion Time provides a limited time to correct any errors or affect repairs and is appropriate for this Condition considering the low probability of an event occurring during this interval that would require a LOP function to actuate.

D.1 and D.2

Condition D applies to each of the LOP Functions when the Required Actions and associated Completion Times for Condition A, B, or C are not met when the unit is in MODE 1, 2, 3, or 4.

If the Required Actions and associated Completion Times of Condition A, B, or C are not met, then the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in MODE 3 within 6 hours and in MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

~~E.1~~

~~Condition E applies to each of the LOP Functions when the Required Actions and associated Completion Times for condition A, B, or C are not met when the associated Diesel Generator is required OPERABLE by LCO 3.8.2.~~

~~In these circumstances the Conditions specified in LCO 3.8.2, "AC Sources — Shutdown," for the Diesel Generator made inoperable by failure of the LOP instrumentation are~~

(continued)

BASES

ACTIONS

~~E.1 (continued)~~

~~required to be entered immediately. The actions of this LCO provide for adequate compensatory actions to support unit safety.~~

SURVEILLANCE REQUIREMENTS

SR 3.3.5.1

SR 3.3.5.1 is the performance of a COT. A COT is performed on each required channel to ensure the entire channel will perform the intended Function. There is a plant specific program which verifies that the instrument channel functions as required by verifying the as-left and as-found setting are consistent with those established by the setpoint methodology. The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.3.5.2

SR 3.3.5.2 is the performance of a CHANNEL CALIBRATION. The Nominal Trip Setpoint considers factors that may affect channel performance such as rack drift, etc. Therefore, the Nominal Trip Setpoint (within the calibration tolerance) is the expected value for the CHANNEL CALIBRATION. A channel with an actual Trip Setpoint value that is conservative with respect to the Allowable Value is considered OPERABLE; but the channel should be reset to the Nominal Trip Setpoint value (within the calibration tolerance) to allow for factors which may affect channel performance (such as rack drift) prior to the next surveillance.

The setpoints, as well as the response to a loss of voltage and a degraded voltage test, shall include a single point verification that the trip occurs within the required time delay.

CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy. There is a plant specific program which verifies that the instrument channel functions as required by verifying the as-left and as-found setting are consistent with those established by the setpoint methodology.

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

(continued)

BASES

LCO (continued)

offsite circuit. Together, OPERABILITY of the required offsite circuit and the ability to manually start a DG ensures the availability of sufficient AC sources to operate the unit in a safe manner and to mitigate the consequences of postulated events during shutdown (e.g., fuel handling accidents).

The qualified offsite circuit must be capable of maintaining rated frequency and voltage, and accepting required loads during an accident, while connected to the Engineered Safety Feature (ESF) bus(es). Qualified offsite circuits are those that are described in the FSAR and are part of the licensing basis for the unit.

Offsite circuits #1 and #2 each consist of a RAT fed from separate lines from the 230 kV switchyard. Each RAT can supply either 4160 V ESF bus. In addition to these circuits, there is also a 13.8/4.16 kV SAT which may be manually connected to supply power to either 4160 V ESF bus and replace either RAT. The SAT receives power from the Georgia Power Company Plant Wilson switchyard.

The DG must be capable of being manually started~~starting~~, accelerating to rated speed and voltage, ~~and~~ connecting to its respective ESF bus, and ~~on detection of bus undervoltage. This sequence must be accomplished within 11.5 seconds. The DG must be capable of~~ accepting the required loads manually, ~~, and continue to operate until offsite power can be restored to the ESF buses~~. ~~These capabilities are required to be met from a variety of initial conditions such as DG in standby with the engine hot and DG in standby with the engine at ambient conditions.~~

~~Proper sequencer operation to support the DG auto-start on loss of power and degraded grid voltage, including tripping of nonessential loads, is a required function for DG OPERABILITY. Automatic load sequencing is not required in MODES 5 or 6.~~

It is acceptable for trains to be cross tied during shutdown conditions, allowing a single offsite power circuit to supply all required trains.

(continued)

BASES

ACTIONS

A.2.1, A.2.2, A.2.3, A.2.4, B.1, B.2, B.3, and B.4 (continued)

reactivity additions does not preclude actions to maintain or increase reactor vessel inventory provided the required SDM is maintained.

Suspension of these activities does not preclude completion of actions to establish a safe conservative condition. These actions minimize the probability or the occurrence of postulated events. It is further required to immediately initiate action to restore the required AC sources and to continue this action until restoration is accomplished in order to provide the necessary AC power to the unit safety systems.

The Completion Time of immediately is consistent with the required times for actions requiring prompt attention. The restoration of the required AC electrical power sources should be completed as quickly as possible in order to minimize the time during which the unit safety systems may be without sufficient power.

Pursuant to LCO 3.0.6, the Distribution System's ACTIONS would not be entered even if all AC sources to it are inoperable, resulting in de-energization. Therefore, the Required Actions of Condition A are modified by a Note to indicate that when Condition A is entered with no AC power to any required ESF bus, the ACTIONS for LCO 3.8.10 must be immediately entered. This Note allows Condition A to provide requirements for the loss of the offsite circuit, whether or not a train is de-energized. LCO 3.8.10 would provide the appropriate restrictions for the situation involving a de-energized train.

SURVEILLANCE REQUIREMENTS

SR 3.8.2.1

SR 3.8.2.1 requires the SRs from LCO 3.8.1 that are necessary for ensuring the OPERABILITY of the AC sources in other than MODES 1, 2, 3, and 4. SR 3.8.1.7, SR 3.8.1.10~~.C.2~~, SR 3.8.1.11, SR 3.8.1.12, SR 3.8.1.14, SR 3.8.1.16, SR 3.8.1.17, and SR 3.8.1.18 are not required to be met because the required OPERABLE DG start and load within a specified time and response on an offsite power or ECCS initiation signal is not assumed in the accident analyses. ~~is not required to respond to an SI signal or~~

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.2.1 (continued)

~~have loads automatically sequenced on the associated ESF bus.~~ SR 3.8.1.20 is excepted because starting independence is not required with the DG that is not required to be operable.

This SR is modified by a Note which~~. The reason for the Note is to~~ precludes requiring the OPERABLE DG from being paralleled with the offsite power network or otherwise rendered inoperable during performance of SRs, and to preclude deenergizing a required 4160 V ESF bus or disconnecting a required offsite circuit during performance of SRs. With limited AC sources available, a single event could compromise both the required circuit and the DG. It is the intent that the DG and offsite circuit ~~these SRs~~ must still be capable of satisfying the acceptance criteria in these SRs~~being met~~, but actual performance is not required during periods when the DG and offsite circuit are required to be OPERABLE. Refer to the corresponding Bases for LCO 3.8.1 for a discussion of each SR.

REFERENCES None.