



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

October 6, 2026

Ms. Jamie Coleman
Regulatory Affairs Director
Southern Nuclear Operating Co., Inc.
3535 Colonnade Parkway, N-274-EC
Birmingham, AL 35243

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 - ISSUANCE OF AMENDMENT NOS. 220 AND 217 TO REVISE TECHNICAL SPECIFICATIONS TO INCLUDE A SURVEILLANCE FREQUENCY CONTROL PROGRAM BASED ON TECHNICAL SPECIFICATION TASK FORCE TRAVELERS 425, 563, AND 596 (EPID L-2026-LLA-0041)

Dear Ms. Coleman:

In response to your application dated February 26, 2026, as supplemented by letter dated July 21, 2026, the U.S. Nuclear Regulatory Commission (NRC, the Commission) has issued the enclosed Amendment Nos. 220 and 217 to Combined License (COL) Nos. NPF-91 and NPF-92 for Vogtle Electric Generating Plant (Vogtle), Units 3 and 4, respectively.

The amendments modify the COL and technical specification (TS) requirements to permit the use of a Surveillance Frequency Control Program (SFCP) based on the methodology described in Technical Specifications Task Force (TSTF) traveler TSTF-425, Revision 3, "Relocate Surveillance Frequencies to Licensee Control - RITSTF Initiative 5b," TSTF-563, Revision 0, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program," and TSTF-596, Revision 2, "Expand the Applicability of the Surveillance Frequency Control Program (SFCP)."

A copy of the related safety evaluation, which includes the NRC staff's evaluation of the amendment, is enclosed. A notice of issuance will be included in the Commission's bi-weekly *Federal Register* notice.

If you have questions, please contact me at 301-415-5905 or
Dawnmathews.Kalathiveettil@nrc.gov.

Sincerely,

/RA/

Dawnmathews T. Kalathiveettil, Project Manager
Operating Reactor Licensing Branch 2
Division of Licensing Projects 1
Office of Nuclear Reactor Regulation

Docket Nos.: 52-025 and 52-026

Enclosures:

1. Amendment No. 220 to Vogtle, Unit 3, COL
2. Amendment No. 217 to Vogtle, Unit 4, COL
3. Safety Evaluation

cc: Listserv



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SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MEAG POWER SPVM, LLC

MEAG POWER SPVJ, LLC

MEAG POWER SPVP, LLC

CITY OF DALTON, GEORGIA

VOGTLE ELECTRIC GENERATING PLANT, UNIT 3

DOCKET NO. 52-025

AMENDMENT TO FACILITY COMBINED LICENSE

Amendment No. 220
License No. NPF-91

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern Nuclear Operating Company (SNC), dated February 26, 2026, as supplemented by letter dated July 21, 2026, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will be constructed and will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations, and all applicable requirements have been satisfied.

2. The License is also amended by changes to Appendix A, Technical Specifications, of the facility Combined License as indicated in the attachment to this license amendment. Paragraph 2.D(8) of facility Combined License No. NPF-91 is hereby amendment to read as follows:

(8) Incorporation

The Technical Specifications and Environmental Protection Plan in Appendices A and B, respectively, of this license, as revised through Amendment No. 220, are hereby incorporated into this license.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 180 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION:

MICHAEL
MARKLEY

Digitally signed by
MICHAEL MARKLEY
Date: 2026.10.06
12:26:58 -04'00'

Michael Markley, Chief
Operating Reactor Licensing Branch 2
Division of Licensing Projects 1
Office of Nuclear Reactor Regulation

Attachment:
Page 4 of the facility Combined License

Date of Issuance: October 6, 2026



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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MEAG POWER SPVM, LLC

MEAG POWER SPVJ, LLC

MEAG POWER SPVP, LLC

CITY OF DALTON, GEORGIA

VOGTLE ELECTRIC GENERATING PLANT, UNIT 4

DOCKET NO. 52-026

AMENDMENT TO FACILITY COMBINED LICENSE

Amendment No. 217
License No. NPF-92

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern Nuclear Operating Company (SNC), dated February 26, 2026, as supplemented by letter dated July 21, 2026, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will be constructed and will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations, and all applicable requirements have been satisfied.

2. The License is also amended by changes to Appendix A, Technical Specifications, of the facility Combined License as indicated in the attachment to this license amendment. Paragraph 2.D(8) of facility Combined License No. NPF-92 is hereby amendment to read as follows:

(8) Incorporation

The Technical Specifications and Environmental Protection Plan in Appendices A and B, respectively, of this license, as revised through Amendment No. 217, are hereby incorporated into this license.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 180 days of the date of issuance

FOR THE NUCLEAR REGULATORY COMMISSION:

MICHAEL
MARKLEY

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MICHAEL MARKLEY
Date: 2026.10.06
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Michael Markley, Chief
Operating Reactor Licensing Branch 2
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Attachments:
Page 4 of the facility Combined License

Date of Issuance: October 6, 2026

ATTACHMENT TO LICENSE AMENDMENT NOS. 220 AND 217

TO FACILITY COMBINED LICENSE NOS. NPF-91 AND NPF-92

DOCKET NOS. 52-025 AND 52-026

Replace the following pages of the facility Combined Licenses and Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

License

NPF-91, page 4

NPF-92, page 4

TSs

1.1 - 1

1.1 - 2

1.1 - 6

3.1.1 - 1

3.1.2 - 2

3.1.4 - 3

3.1.5 - 2

3.1.6 - 2

3.1.8 - 2

3.1.9 - 2

3.1.10 - 1

3.2.1 - 5

3.2.1 - 6

3.2.2 - 3

3.2.3 - 3

3.2.4 - 3

3.2.5 - 1

3.3.1 - 2

3.3.1 - 3

3.3.1 - 4

3.3.2 - 2

3.3.2 - 3

3.3.3 - 3

3.3.4 - 2

3.3.5 - 2

3.3.7 - 2

3.3.8 - 6

3.3.9 - 4

3.3.10 - 4

3.3.11 - 2

3.3.12 - 1

3.3.13 - 3

Insert Pages

License

NPF-91, page 4

NPF-92, page 4

TSs

1.1-1

1.1-2

1.1-6

3.1.1-1

3.1.2-2

3.1.4-3

3.1.5 - 2

3.1.6 - 2

3.1.8 - 2

3.1.9 - 2

3.1.10 - 1

3.2.1 - 5

3.2.1 - 6

3.2.2 - 3

3.2.3 - 3

3.2.4 - 3

3.2.5 - 1

3.3.1 - 2

3.3.1 - 3

3.3.1 - 4

3.3.2 - 2

3.3.2 - 3

3.3.3 - 3

3.3.4 - 2

3.3.5 - 2

3.3.7 - 2

3.3.8 - 6

3.3.9 - 4

3.3.10 - 4

3.3.11 - 2

3.3.12 - 1

3.3.13 - 3

3.3.14 – 3	3.3.14 – 3
3.3.17 – 2	3.3.17 – 2
3.3.18 – 1	3.3.18 – 1
3.3.18 – 2	3.3.18 – 2
3.3.19 – 2	3.3.19 – 2
3.3.20 – 2	3.3.20 – 2
3.4.1 – 2	3.4.1 – 2
3.4.2 – 1	3.4.2 – 1
3.4.3 – 2	3.4.3 – 2
3.4.4 – 2	3.4.4 – 2
3.4.5 – 1	3.4.5 – 1
3.4.6 – 2	3.4.6 – 2
3.4.7 – 2	3.4.7 – 2
3.4.8 – 2	3.4.8 – 2
3.4.9 – 3	3.4.9 – 3
3.4.10 – 2	3.4.10 – 2
3.4.11 – 2	3.4.11 – 2
3.4.11 – 3	3.4.11 – 3
3.4.13 – 3	3.4.13 – 3
3.4.14 – 3	3.4.14 – 3
3.4.14 – 4	3.4.14 – 4
3.4.15 – 2	3.4.15 – 2
3.4.16 – 1	3.4.16 – 1
3.4.18 – 2	3.4.18 – 2
3.4.19 – 2	3.4.19 – 2
3.4.20 – 1	3.4.20 – 1
3.5.1 – 2	3.5.1 – 2
3.5.2 – 2	3.5.2 – 2
3.5.2 – 3	3.5.2 – 3
3.5.3 – 3	3.5.3 – 3
3.5.4 – 3	3.5.4 – 3
3.5.6 – 3	3.5.6 – 3
3.5.6 – 4	3.5.6 – 4
3.5.7 – 3	3.5.7 – 3
3.5.8 – 3	3.5.8 – 3
3.5.9 – 2	3.5.9 – 2
3.6.2 – 4	3.6.2 – 4
3.6.3 – 3	3.6.3 – 3
3.6.4 – 1	3.6.4 – 1
3.6.5 – 1	3.6.5 – 1
3.6.6 – 2	3.6.6 – 2
3.6.6 – 3	3.6.6 – 3
3.6.7 – 2	3.6.7 – 2
3.6.8 – 1	3.6.8 – 1
3.6.9 – 4	3.6.9 – 4
3.7.1 – 3	3.7.1 – 3
3.7.2 – 5	3.7.2 – 5
3.7.3 – 2	3.7.3 – 2
3.7.4 – 1	3.7.4 – 1
3.7.5 – 1	3.7.5 – 1
3.7.6 – 4	3.7.6 – 4

3.7.6 – 5	3.7.6 – 5
3.7.7 – 2	3.7.7 – 2
3.7.10 – 3	3.7.10 – 3
3.7.11 – 1	3.7.11 – 1
3.8.1 – 2	3.8.1 – 2
3.8.1 – 3	3.8.1 – 3
3.8.3 – 2	3.8.3 – 2
3.8.4 – 2	3.8.4 – 2
3.8.5 – 2	3.8.5 – 2
3.8.6 – 2	3.8.6 – 2
3.8.7 – 3	3.8.7 – 3
3.8.7 – 4	3.8.7 – 4
3.9.1 – 1	3.9.1 – 1
3.9.2 – 1	3.9.2 – 1
3.9.3 – 2	3.9.3 – 2
3.9.4 – 1	3.9.4 – 1
5.5 – 3	5.5 – 3
5.5 – 10	5.5 – 10
5.5 – 11	5.5 – 11
5.5 – 12	5.5 – 12
5.5 – 13	5.5 – 13
-----	5.5 – 14

D. The license is subject to, and SNC shall comply with, the conditions specified and incorporated below:

- (1) Changes during Construction – Removed by Amendment No. 202
- (2) Pre-operational Testing – Removed by Amendment Nos. 192 and 202
- (3) Nuclear Fuel Loading and Pre-critical Testing – Removed by Amendment Nos. 192 and 202
- (4) Initial Criticality and Low-Power Testing – Removed by Amendment No. 202
- (5) Power Ascension Testing – Removed by Amendment No. 202
- (6) Maximum Power Level

SNC is authorized to operate the facility at steady state reactor core power levels not to exceed 3400 MW thermal (100-percent thermal power), as described in the UFSAR, in accordance with the conditions specified herein.

- (7) Reporting Requirements - Removed by Amendment No. 202
- (8) Incorporation

The Technical Specifications and Environmental Protection Plan in Appendices A and B, respectively, of this license, as revised through Amendment No. 220, are hereby incorporated into this license.

- (9) Technical Specifications – Removed by Amendment No. 202
- (10) Operational Program Implementation – Removed by Amendment No. 202
- (11) Operational Program Implementation Schedule – Removed by Amendment No. 202
- (12) Site- and Unit-specific Conditions – Removed by Amendment No. 202

[Blank Pages 5 through 14 removed by Amendment No. 202.]

D. The license is subject to, and SNC shall comply with, the conditions specified and incorporated below:

- (1) Changes during Construction – Removed by Amendment No. 199
- (2) Pre-operational Testing – Removed by Amendment Nos. 194 and 199
- (3) Nuclear Fuel Loading and Pre-critical Testing – Removed by Amendment Nos. 194 and 199
- (4) Initial Criticality and Low-Power Testing – Removed by Amendment No. 199
- (5) Power Ascension Testing – Removed by Amendment No. 199
- (6) Maximum Power Level

SNC is authorized to operate the facility at steady state reactor core power levels not to exceed 3400 MW thermal (100-percent thermal power), as described in the UFSAR, in accordance with the conditions specified herein.

- (7) Reporting Requirements - Removed by Amendment No. 199
- (8) Incorporation

The Technical Specifications and Environmental Protection Plan in Appendices A and B, respectively, of this license, as revised through Amendment No. 217, are hereby incorporated into this license.

- (9) Technical Specifications – Removed by Amendment No. 199
- (10) Operational Program Implementation – Removed by Amendment No. 199
- (11) Operational Program Implementation Schedule – Removed by Amendment No. 199
- (12) Site- and Unit-specific Conditions – Removed by Amendment No. 199

[Blank Pages 5 through 14 removed by Amendment No. 199.]

1.0 USE AND APPLICATION

1.1 Definitions

- NOTE -

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications and Bases.

<u>Term</u>	<u>Definition</u>
ACTIONS	ACTIONS shall be that part of a Specification that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.
ACTUATION LOGIC TEST	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 may be performed by means of any series of sequential, overlapping, or total steps.
AXIAL FLUX DIFFERENCE (AFD)	AFD shall be the difference in normalized flux signals between the top and bottom halves of a two-section excore neutron detector.
CHANNEL CALIBRATION	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 CHANNEL CALIBRATION shall encompass all devices in the channel required for OPERABILITY. Calibration of instrument channels with resistance temperature detector (RTD), thermocouple, or reactor coolant pump speed sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps, and each step must be performed within the Frequency in the SFCP for the devices included in this step.

1.1 Definitions

CHANNEL CHECK	A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation. This determination shall include, where possible, comparison of the channel indication and status to other indications or status derived from independent instrument channels measuring the same parameter.
CHANNEL OPERATIONAL TEST (COT)	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, and each step must be performed within the Frequency in the SFCP for the devices included in this step.
CORE OPERATING LIMITS REPORT (COLR)	The COLR is the unit specific document that provides cycle specific parameter limits for the current reload cycle. These cycle specific parameter limits shall be determined for each reload cycle in accordance with Specification 5.6.3. Plant operation within these limits is addressed in individual Specifications.
DOSE EQUIVALENT I-131	DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) that alone would produce the same committed effective dose equivalent as the quantity and isotopic mixture of I-130, I-131, I-132, I-133, I-134, and I-135 actually present. The dose conversion factors used for this calculation shall be those listed in Table 2.1 of EPA Federal Guidance Report No. 11, "Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion," EPA-520/1-88-020, September 1988.
DOSE EQUIVALENT XE-133	DOSE EQUIVALENT XE-133 shall be that concentration of Xe-133 (microcuries per gram) that alone would produce the same effective dose equivalent as the quantity and isotopic mixture of noble gases (Kr-85m, Kr-85, Kr-87, Kr-88, Xe-131m, Xe-133m, Xe-133, Xe-135m, Xe-135, and Xe-138) actually present. The dose conversion factors used for this calculation shall be those listed in Table III.1 of EPA Federal Guidance Report No. 12, "External Exposure to Radionuclides in Air, Water, and Soil," EPA 402-R-93-081, September 1993.

1.1 Definitions

TRIP ACTUATING DEVICE
OPERATIONAL TEST
(TADOT)

A TADOT shall consist of operating the trip actuating device and verifying the OPERABILITY of all devices in the channel required for trip actuating device OPERABILITY. The TADOT shall include adjustment, as necessary, of the trip actuating device so that it actuates at the required setpoint within the necessary accuracy. The TADOT may be performed by means of any series of sequential, overlapping, or total channel steps, and each step must be performed within the Frequency in the SFCP for the devices included in this step.

VENTED

VENTED shall be the condition when all required flow paths in ADS stage 1, 2, and 3, or alternative flow path with equivalent area, required by LCO 3.4.13, "Automatic Depressurization System (ADS) - Shutdown, RCS Open," are open.

3.1 REACTIVITY CONTROL SYSTEMS

3.1.1 SHUTDOWN MARGIN (SDM)

LCO 3.1.1 The SDM shall be within the limits specified in the COLR.

APPLICABILITY: MODE 2 with $k_{\text{eff}} < 1.0$.
MODES 3, 4, and 5.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. SDM not within limits.	A.1 Initiate boration to restore SDM to within limits.	15 minutes

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.1.1 Verify SDM to be within limits.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.2.1 ----- - NOTE - The predicted reactivity values may be adjusted (normalized) to correspond to the measured core reactivity prior to exceeding a fuel burnup of 60 effective full power days (EFPD) after each fuel loading. ----- Verify measured core reactivity is within $\pm 1\%$ $\Delta k/k$ of predicted values.	Once prior to entering MODE 1 after each refueling <u>AND</u> ----- - NOTE - Only required to be performed after 60 EFPD ----- In accordance with the SFCP

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition B not met.	C.1 Be in MODE 3.	6 hours
D. More than one rod not within alignment limit.	D.1.1 Verify SDM is within the limits specified in the COLR.	1 hour
	<u>OR</u>	
	D.1.2 Initiate boration to restore required SDM to within limit.	1 hour
	<u>AND</u>	
	D.2 Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.4.1 ----- - NOTE - Not required to be performed for rods associated with inoperable digital rod position indication or demand position indication. ----- Verify individual rod positions within alignment limit.	In accordance with the SFCP
SR 3.1.4.2 Verify rod freedom of movement (trippability) by moving each RCCA not fully inserted in the core ≥ 10 steps in either direction.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.5.1	Verify each shutdown bank is within the insertion limits specified in the COLR.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Control bank sequence or overlap limits not met.	B.1.1 Verify SDM is within the limits specified in the COLR.	1 hour
	<u>OR</u>	
	B.1.2 Initiate boration to restore SDM to within limits.	1 hour
	<u>AND</u>	
	B.2 Restore control bank sequence and overlap to within limits.	2 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 2 with $k_{eff} < 1.0$.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.6.1	Verify the estimated critical control bank position is within limits specified in the COLR.	Within 4 hours prior to achieving criticality
SR 3.1.6.2	Verify each control bank insertion is within the limits specified in the COLR.	In accordance with the SFCP
SR 3.1.6.3	Verify sequence and overlap limits, specified in the COLR, are met for control banks not fully withdrawn from the core.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and Associated Completion Time of Condition C not met.	D.1 Be in MODE 3.	15 minutes

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.8.1	Verify the RCS lowest loop average temperature is $\geq 541^{\circ}\text{F}$.	In accordance with the SFCP
SR 3.1.8.2	Verify THERMAL POWER is $\leq 5\%$ RTP.	In accordance with the SFCP
SR 3.1.8.3	Verify SDM is within the limits specified in the COLR.	In accordance with the SFCP

Technical SpecificationsCVS Demineralized Water
Isolation Valves and Makeup
Line Isolation Valves
3.1.9**ACTIONS (continued)**

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met. <u>OR</u> Two CVS demineralized water isolation valves inoperable. <u>OR</u> Two CVS makeup line isolation valves inoperable.	B.1 Isolate the affected flow path(s) to the Reactor Coolant System by use of at least one closed manual or one closed and de-activated automatic valve.	1 hour

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.9.1	Verify two CVS demineralized water isolation valves and two CVS makeup line isolation valves stroke closed.	In accordance with the SFCP
SR 3.1.9.2	Verify closure time of each CVS makeup isolation valve is within limits on an actual or simulated actuation signal.	In accordance with the SFCP
SR 3.1.9.3	Verify each CVS demineralized water isolation valve actuates to the isolation position on an actual or simulated actuation signal.	In accordance with the SFCP

3.1 REACTIVITY CONTROL SYSTEMS

3.1.10 Rod Withdrawal Test Exception – MODE 5

LCO 3.1.10 During the performance of rod movement and rod drop time testing, the requirements of LCO 3.4.4, “RCS Loops,” may be suspended provided boron concentration of the reactor coolant system is greater than the all rods out (ARO) boron concentration that provides $k_{\text{eff}} < 0.99$.

APPLICABILITY: MODE 5 with LCO 3.4.4 not met.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Requirements of the LCO not met.	A.1 Initiate action to fully insert all rods.	Immediately
	<u>AND</u> A.2 Place the Plant Control System in a condition incapable of rod withdrawal.	1 hour

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.1.10.1 Verify boron concentration of the reactor coolant system is greater than the ARO boron concentration providing $k_{\text{eff}} < 0.99$.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.2.1.3 ----- - NOTE - Not required to be performed until 24 hours after OPDMS not monitoring parameters. ----- Verify $F_Q^C(Z)$ within limit.	Once within 24 hours after achieving equilibrium conditions after exceeding, by $\geq 10\%$ RTP, the THERMAL POWER at which $F_Q^C(Z)$ was last verified <u>AND</u> In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)	
SURVEILLANCE	FREQUENCY
SR 3.2.1.4 ----- - NOTE - Not required to be performed until 24 hours after OPDMS not monitoring parameters. ----- Verify $F_Q^W(Z)$ within limits.	Once within 24 hours after achieving equilibrium conditions after exceeding, by $\geq 10\%$ RTP, the THERMAL POWER at which $F_Q^W(Z)$ was last verified <u>AND</u> In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.2.2.1 ----- - NOTE - Not required to be performed if OPDMS was monitoring parameters upon exceeding 75% RTP. ----- Verify $F_{\Delta H}^N$ within limits specified in the COLR.	Once after each refueling prior to THERMAL POWER exceeding 75% RTP
SR 3.2.2.2 ----- - NOTE - Not required to be performed until 24 hours after OPDMS not monitoring parameters. ----- Verify $F_{\Delta H}^N$ within limits specified in the COLR.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

- NOTE -

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

SURVEILLANCE		FREQUENCY
SR 3.2.3.1	Verify AFD within limits for each OPERABLE excore channel.	In accordance with the SFCP
SR 3.2.3.2	Update the target flux difference.	Once within 31 EFPD after each refueling <u>AND</u> In accordance with the SFCP
SR 3.2.3.3	----- - NOTE - The initial target flux difference after each refueling may be determined from design predictions. ----- Determine, by measurement, the target flux difference.	Once within 31 EFPD after each refueling <u>AND</u> In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

- NOTE -

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

SURVEILLANCE	FREQUENCY
SR 3.2.4.1 ----- - NOTES - 1. With one Power Range Neutron Flux channel inoperable and THERMAL POWER < 75% RTP, the remaining three Power Range Neutron Flux channels can be used for calculating QPTR. 2. SR 3.2.4.2 may be performed in lieu of this Surveillance. ----- Verify QPTR within limit by calculation.	In accordance with the SFCP
SR 3.2.4.2 ----- - NOTE - Not required to be performed until 12 hours after input from one or more Power Range Neutron Flux channels are inoperable with THERMAL POWER $\geq 75\%$ RTP. ----- Verify QPTR is within limit using a minimum of 4 symmetric pairs of fixed incore detectors.	In accordance with the SFCP

3.2 POWER DISTRIBUTION LIMITS

3.2.5 On-Line Power Distribution Monitoring System (OPDMS)-Monitored Parameters

LCO 3.2.5 The following parameters shall not exceed their operating limits as specified in the COLR:

- a. Peak Linear Heat Rate;
- b. $F_{\Delta H}^N$;
- c. DNBR; and
- d. SDM.

APPLICABILITY: MODE 1 with THERMAL POWER $\geq$ 25% RTP and with OPDMS monitoring parameters a, b, and c.
 MODE 1 with OPDMS monitoring parameter d.
 MODE 2 with $k_{eff} \geq 1.0$ and OPDMS monitoring parameter d.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more of the parameters a. through c. above not within limits.	A.1 Restore all parameters to within limits.	1 hour
B. Required Action and associated Completion Time of Condition A not met.	B.1 Reduce THERMAL POWER to < 25% RTP.	4 hours
C. Parameter d above not within limits.	C.1 Initiate boration to restore SDM to within limits.	15 minutes

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.2.5.1 Verify the parameters a. through d. to be within their limits.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. As required by Required Action C.1 and referenced in Table 3.3.1-1.	E.1 Reduce THERMAL POWER to < P-10.	6 hours

SURVEILLANCE REQUIREMENTS

- NOTE -

Refer to Table 3.3.1-1 to determine which SRs apply for each RTS Function.

SURVEILLANCE	FREQUENCY
SR 3.3.1.1 - NOTES - 1. Required to be met within 12 hours after reaching 15% RTP. 2. If the calorimetric heat balance is $\geq 15\%$ RTP, and if the nuclear instrumentation channel indicated power is: a. lower than the calorimetric measurement by $> 5\%$ RTP, then adjust the nuclear instrumentation channel upward to match the calorimetric measurement. b. higher than the calorimetric measurement, then no adjustment is required. Compare results of calorimetric heat balance to nuclear instrument channel output.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.3.1.2 ----- - NOTES - 1. Adjust the conversion factor, ΔT°, in the ΔT power calculation ($q_{\Delta T}$) if absolute difference between $q_{\Delta T}$ and the calorimetric measurement is $> 3\%$ RTP. 2. Required to be met within 12 hours after reaching 50% RTP. 3. If the calorimetric heat balance is $< 70\%$ RTP, and if $q_{\Delta T}$ is: a. lower than the calorimetric measurement by $> 5\%$, then adjust ΔT° to match the calorimetric measurement. b. higher than the calorimetric measurement, then no adjustment is required. ----- Compare results of calorimetric heat balance to the ΔT power calculation ($q_{\Delta T}$) output.	In accordance with the SFCP
SR 3.3.1.3 ----- - NOTES - 1. Adjust nuclear instrument channel in PMS if absolute difference is $\geq 1.5\%$ AFD. 2. Required to be met within 24 hours after reaching 20% RTP. ----- Compare results of the incore detector measurements to nuclear instrument channel AXIAL FLUX DIFFERENCE.	In accordance with the SFCP
SR 3.3.1.4 ----- - NOTE - Required to be met within 24 hours after reaching 50% RTP. ----- Calibrate excore channels to agree with incore detector measurements.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.3.1.5 ----- - NOTE - This Surveillance shall include verification that the time constants are adjusted to within limits. ----- Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	In accordance with the SFCP
SR 3.3.1.6 ----- - NOTE - Neutron detectors are excluded from CHANNEL CALIBRATION. ----- Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	In accordance with the SFCP
SR 3.3.1.7 ----- - NOTE - Verification of setpoint is not required. ----- Perform TADOT.	In accordance with the SFCP
SR 3.3.1.8 ----- - NOTE - Neutron detectors are excluded from response time testing. ----- Verify RTS RESPONSE TIME is within limits.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Required Action and associated Completion Time of Condition D not met.	E.1 Initiate action to fully insert all rods.	1 hour
	<u>AND</u> E.2 Place the Plant Control System in a condition incapable of rod withdrawal.	1 hour
F. Three or more channels inoperable.	F.1 Open reactor trip breakers (RTBs).	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.2.1	Perform CHANNEL CHECK.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.2.2	----- - NOTE - Neutron detectors are excluded from CHANNEL CALIBRATION. -----	In accordance with the SFCP
	Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	
SR 3.3.2.3	----- - NOTE - Neutron detectors are excluded from response time testing. -----	In accordance with the SFCP
	Verify RTS RESPONSE TIME is within limits.	

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.3.1	----- - NOTE - Not required to be met in MODE 1. ----- Perform CHANNEL CHECK.	In accordance with the SFCP
SR 3.3.3.2	----- - NOTE - Neutron detectors are excluded from CHANNEL CALIBRATION. ----- Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	In accordance with the SFCP
SR 3.3.3.3	----- - NOTE - Neutron detectors are excluded from response time testing. ----- Verify RTS RESPONSE TIME is within limits.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition C not met. <u>OR</u> One or more Functions with three or more channels inoperable in MODE 3, 4, or 5.	D.1 Initiate action to fully insert all rods.	1 hour
	<u>AND</u> D.2 Place the Plant Control System in a condition incapable of rod withdrawal.	1 hour

SURVEILLANCE REQUIREMENTS

- NOTE -

Refer to Table 3.3.4-1 to determine to which RTS ESFAS Function the SR applies.

SURVEILLANCE	FREQUENCY
SR 3.3.4.1 Verify RTS RESPONSE TIME is within limit.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A not met in MODE 3, 4, or 5. <u>OR</u> One or more Functions with two manual actuation channels inoperable in MODE 3, 4, or 5.	C.1 Initiate action to fully insert all rods.	1 hour
	<u>AND</u> C.2 Place the Plant Control System in a condition incapable of rod withdrawal.	1 hour

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.3.5.1 ----- - NOTE - Verification of setpoint is not required. ----- Perform TADOT.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A or B not met in MODE 3, 4, or 5. <u>OR</u> One or both Functions within three or more divisions inoperable in MODE 3, 4, or 5.	D.1 Initiate action to fully insert all rods.	6 hours
	<u>AND</u> D.2 Place the Plant Control System in a condition incapable of rod withdrawal.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.7.1	Perform TADOT on both reactor trip breakers in one division.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.3.8.1 ----- - NOTE - Only required to be met for Source Range Neutron Flux Doubling. ----- Perform CHANNEL CHECK.	In accordance with the SFCP
SR 3.3.8.2 ----- - NOTES - 1. This surveillance shall include verification that the time constants are adjusted to within limits. 2. Neutron detectors are excluded from CHANNEL CALIBRATION. ----- Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	In accordance with the SFCP
SR 3.3.8.3 ----- - NOTES - 1. Not applicable to Function 1.a. 2. Neutron detectors are excluded from response time testing. ----- Verify ESF RESPONSE TIME is within limit.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.3.9.1 ----- - NOTE - Verification of setpoint not required. ----- Perform TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT).	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.10.1	----- - NOTE - This surveillance shall include verification that the time constants are adjusted to within limits. ----- Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	In accordance with the SFCP
SR 3.3.10.2	Verify ESF RESPONSE TIME is within limit.	

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.11.1	----- - NOTE - This surveillance shall include verification that the time constants are adjusted to within limits. ----- Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	In accordance with the SFCP
SR 3.3.11.2	Verify ESF RESPONSE TIME is within limit.	

3.3 INSTRUMENTATION

3.3.12 Engineered Safety Feature Actuation System (ESFAS) Reactor Trip Initiation

LCO 3.3.12 Three ESFAS Reactor Trip (P-4) divisions shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One required division inoperable.	A.1 Restore required division to OPERABLE status.	6 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1 Declare affected isolation valve(s) inoperable.	Immediately
<u>OR</u>	<u>AND</u>	
Two or three required divisions inoperable.	B.2 Be in MODE 3.	6 hours
	<u>AND</u>	
	B.3 Be in MODE 4.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.3.12.1 Perform TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT).	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

- NOTE -

Refer to Table 3.3.13-1 to determine which SRs apply for each ESFAS Main Control Room Isolation, Air Supply Initiation, and Electrical Load De-energization Function.

SURVEILLANCE		FREQUENCY
SR 3.3.13.1	- NOTE - This surveillance shall include verification that the time constants are adjusted to within limits. Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	In accordance with the SFCP
SR 3.3.13.2	Verify ESF RESPONSE TIME is within limit.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.14.1	----- - NOTE - This surveillance shall include verification that the time constants are adjusted to within limits. ----- Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	In accordance with the SFCP
SR 3.3.14.2	Verify ESF RESPONSE TIME is within limit.	

SURVEILLANCE REQUIREMENTS

- NOTE -

Refer to Table 3.3.17-1 to determine which SRs apply for each PAM Function.

SURVEILLANCE	FREQUENCY
SR 3.3.17.1 - NOTE - Not required to be met for Neutron Flux (Intermediate Range) in MODE 1. Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	In accordance with the SFCP
SR 3.3.17.2 - NOTE - Neutron detectors are excluded from CHANNEL CALIBRATION. Perform CHANNEL CALIBRATION.	In accordance with the SFCP

3.3 INSTRUMENTATION

3.3.18 Remote Shutdown Workstation (RSW)

LCO 3.3.18 The RSW shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.
MODE 4 with Reactor Coolant System (RCS) average temperature (T_{avg}) $\geq 350^{\circ}\text{F}$.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. RSW inoperable.	A.1 Restore to OPERABLE status.	30 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 4 with $T_{avg} < 350^{\circ}\text{F}$.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.18.1	Verify each required transfer switch is capable of performing the required function.	In accordance with the SFCP
SR 3.3.18.2	Verify the RSW communicates indication and controls with Division A, B, C and D of the Protection and Safety Monitoring System (PMS).	In accordance with the SFCP
SR 3.3.18.3	Verify the OPERABILITY of the RSW hardware and software.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.18.4	Perform TADOT of the reactor trip breaker open/closed indication.	In accordance with the SFCP

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition B not met.	D.1 Be in MODE 3.	6 hours
<u>OR</u>	<u>AND</u>	
Required Action and associated Completion Time of Condition C not met.	D.2 Be in MODE 5.	36 hours

SURVEILLANCE		FREQUENCY
SR 3.3.19.1	----- - NOTE - Verification of setpoint not required. ----- Perform TRIP ACTUATION DEVICE OPERATIONAL TEST (TADOT).	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

- NOTE -

Refer to Table 3.3.20-1 to determine which SRs apply for each ADS and IRWST Injection Blocking Device Function.

SURVEILLANCE		FREQUENCY
SR 3.3.20.1	Verify each ADS and IRWST Injection Block switch is in the “unblock” position.	In accordance with the SFCP
SR 3.3.20.2	Perform CHANNEL CALIBRATION in accordance with Setpoint Program.	In accordance with the SFCP
SR 3.3.20.3	Perform ACTUATION LOGIC TEST of ADS and IRWST Injection Blocking Devices.	In accordance with the SFCP
SR 3.3.20.4	- NOTE - Verification of setpoint not required. Perform TRIP ACTUATING DEVICE OPERATIONAL TEST (TADOT) of ADS and IRWST Injection Block manual switches.	In accordance with the SFCP
SR 3.3.20.5	The following SRs of Specification 3.5.2, “Core Makeup Tanks (CMTs) – Operating” are applicable for each CMT: SR 3.5.2.2 SR 3.5.2.5 SR 3.5.2.6	In accordance with applicable SRs

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.1.1	Verify pressurizer pressure is greater than or equal to the limit specified in the COLR.	In accordance with the SFCP
SR 3.4.1.2	Verify RCS average temperature is less than or equal to the limit specified in the COLR.	In accordance with the SFCP
SR 3.4.1.3	Verify RCS total flow rate is $\geq 301,670$ gpm and greater than or equal to the limit specified in the COLR.	In accordance with the SFCP
SR 3.4.1.4	Perform a CHANNEL CALIBRATION of differential pressure RCS total flow rate indication channels.	In accordance with the SFCP
SR 3.4.1.5	----- - NOTE - Not required to be performed until 24 hours after $\geq 90\%$ RTP. ----- Verify RCS total flow rate is $\geq 301,670$ gpm and greater than or equal to the limit specified in the COLR as determined by precision heat balance or differential pressure RCS total flow rate indication measurements.	In accordance with the SFCP

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.2 RCS Minimum Temperature for Criticality

LCO 3.4.2 Each RCS loop average temperature (T_{avg}) shall be $\geq 551^{\circ}\text{F}$.

APPLICABILITY: MODE 1,
MODE 2 with $k_{eff} \geq 1.0$.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. T_{avg} in one or more RCS loops not within limit.	A.1 Be in MODE 2 with $k_{eff} < 1.0$.	30 minutes

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.2.1 Verify RCS T_{avg} in each loop $\geq 551^{\circ}\text{F}$.	In accordance with the SFCP

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ----- - NOTE - Required Action C.2 shall be completed whenever this Condition is entered. ----- Requirements of LCO not met any time in other than MODE 1, 2, 3, or 4.	C.1 Initiate action to restore parameter(s) to within limits. <u>AND</u> C.2 Determine RCS is acceptable for continued operation.	Immediately Prior to entering MODE 4

SURVEILLANCE	FREQUENCY
SR 3.4.3.1 ----- - NOTE - Only required to be performed during RCS heatup and cooldown operations and RCS inservice leak and hydrostatic testing. ----- Verify RCS pressure, RCS temperature, and RCS heatup and cooldown rates within limits specified in the PTLR.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. ----- - NOTE - Required Actions must be completed whenever Condition B is entered. ----- Requirements of LCO not met in MODE 3, 4, or 5.	B.1 Suspend start of any RCP.	Immediately
	<u>AND</u>	
	B.2 Initiate action to fully insert all rods.	1 hour
	<u>AND</u>	
	B.3 Place the Plant Control System in a condition incapable of rod withdrawal.	1 hour

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.4.1	Verify each RCS loop is in operation with variable speed control bypassed.	In accordance with the SFCP

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.5 Pressurizer

LCO 3.4.5 The pressurizer water level shall be $\leq 92\%$ of span.

APPLICABILITY: MODES 1, 2, and 3,
 MODE 4 with all four cold leg temperatures $> 275^{\circ}\text{F}$.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Pressurizer water level not within limit.	A.1 Be in MODE 3.	6 hours
	<u>AND</u>	
	A.2 Initiate action to fully insert all rods.	6 hours
	<u>AND</u>	
	A.3 Place the Plant Control System in a condition incapable of rod withdrawal.	6 hours
	<u>AND</u>	
	A.4 Be in MODE 4 with at least one cold leg temperature $\leq 275^{\circ}\text{F}$.	24 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.5.1 Verify pressurizer water level $\leq 92\%$ of span.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.6.1	Verify each pressurizer safety valve OPERABLE with lift settings ≥ 2460 psig and ≤ 2510 psig.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time not met. <u>OR</u> Primary to secondary LEAKAGE not within limit.	C.1 Be in MODE 3. <u>AND</u>	6 hours
	C.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.7.1 ----- - NOTES - 1. Not required to be performed until 12 hours after establishment of steady state operation. 2. Not applicable to primary to secondary LEAKAGE. ----- Verify RCS operational LEAKAGE is within limits by performance of RCS water inventory balance.	In accordance with the SFCP
SR 3.4.7.2 ----- - NOTE - Not required to be performed until 12 hours after establishment of steady state operation. ----- Verify primary to secondary LEAKAGE is $\leq$ 150 gallons per day through any one SG.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.8.1	Verify at least one RCP is in operation with total flow through the core $\geq 3,000$ gpm.	In accordance with the SFCP

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A, B, or C not met.	D.1 Be in MODE 3.	6 hours
	<u>AND</u> D.2 Be in MODE 5.	36 hours
E. All required monitors inoperable.	E.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.9.1	Perform a CHANNEL CHECK.	In accordance with the SFCP
SR 3.4.9.2	Perform a COT of containment atmosphere F18 particulate monitor.	In accordance with the SFCP
SR 3.4.9.3	Perform a CHANNEL CALIBRATION.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A or B not met. <u>OR</u> DOSE EQUIVALENT I-131 > 60 µCi/gm.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.10.1 ----- - NOTE - Only required to be performed in MODE 1. ----- Verify reactor coolant DOSE EQUIVALENT XE-133 specific activity ≤ 280 µCi/gm.	In accordance with the SFCP
SR 3.4.10.2 ----- - NOTE - Only required to be performed in MODE 1. ----- Verify reactor coolant DOSE EQUIVALENT I-131 specific activity ≤ 1.0 µCi/gm.	In accordance with the SFCP <u>AND</u> Between 2 to 6 hours after a THERMAL POWER change of ≥ 15% of RTP within a 1 hour period

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A, B, or C not met.	D.1 Be in MODE 3.	6 hours
	<u>AND</u>	
	D.2 Be in MODE 5.	36 hours
<u>OR</u>		
Condition A and Condition B entered concurrently.		
<u>OR</u>		
Three or more flow paths in ADS stage 1, 2, and 3 inoperable.		
<u>OR</u>		
LCO not met for reasons other than Condition A, B, or C.		

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.11.1	Verify the motor operated valve in series with each 4th stage ADS valve is open.	In accordance with the SFCP
SR 3.4.11.2	Verify each stage 1, 2, and 3 ADS valve strokes open.	In accordance with the SFCP
SR 3.4.11.3	Verify each stage 4 ADS valve is OPERABLE in accordance with 10 CFR 50.55a(f).	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.4.11.4	Verify each stage 1, 2, and 3 ADS valve actuates to the open position on an actual or simulated actuation signal.	In accordance with the SFCP
SR 3.4.11.5	----- - NOTE - Squib actuation may be excluded. ----- Verify continuity of the circuit from the Protection Logic Cabinets to each stage 4 ADS valve.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.13.1	Verify each required ADS stage 1, 2, and 3 valve is in the open position.	In accordance with the SFCP
SR 3.4.13.2	For each required flow path in ADS stage 4, the following SRs are applicable: SR 3.4.11.1 SR 3.4.11.3 SR 3.4.11.5	In accordance with applicable SRs

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.14.1 ----- - NOTE - 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. ----- Verify each accumulator is isolated.	In accordance with the SFCP
SR 3.4.14.2 ----- - NOTE - Only required to be met when complying with LCO 3.4.14.a. ----- Verify both RNS suction isolation valves in one RNS suction flow path are open.	In accordance with the SFCP
SR 3.4.14.3 ----- - NOTE - Only required to be met when complying with LCO 3.4.14.a. ----- Verify CVS makeup line containment isolation valve, CVS-PL-V091, is closed.	In accordance with the SFCP
SR 3.4.14.4 ----- - NOTE - Only required to be met when complying with LCO 3.4.14.b. ----- Verify RCS vent ≥ 4.15 square inches is open.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.4.14.5 ----- - NOTE - Only required to be met when complying with LCO 3.4.14.a. ----- Verify the lift setting of each RNS suction relief valve is within limits.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
	A.2 Verify a second OPERABLE PIV can meet the leakage limits. This valve is required to be a check valve, or a closed valve, if it isolates a line that penetrates containment.	72 hours
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.15.1 Verify leakage of each RCS PIV is equivalent to ≤ 0.5 gpm per nominal inch valve size up to a maximum of 5 gpm at an RCS pressure ≥ 2215 and ≤ 2255 psig.	In accordance with the SFCP

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.16 Reactor Vessel Head Vent (RVHV)

LCO 3.4.16 The Reactor Vessel Head Vent shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
MODE 4 with all four cold leg temperatures > 275°F.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One flow path inoperable.	A.1 Restore flow path to OPERABLE status.	72 hours
B. Two flow paths inoperable.	B.1 Restore at least one flow path to OPERABLE status.	6 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Be in MODE 4 with at least one cold leg temperature ≤ 275°F.	24 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.16.1 Verify each RVHV valve strokes open.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.18.1	Verify each pressurizer heater circuit breaker trips open on an actual or simulated actuation signal, except for circuit breaker maintained in the tripped condition.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.19.1	Verify each auxiliary spray and purification line isolation valve actuate to the isolation position on an actual or simulated actuation signal.	In accordance with the SFCP

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.20 Chemical and Volume Control System (CVS) Letdown Isolation Valves

LCO 3.4.20 Each CVS letdown isolation valve shall be OPERABLE.

APPLICABILITY: MODE 5 below P-12 (Pressurizer Level) interlock,
MODE 6 with water level < 23 feet above the top of the reactor vessel
flange.

ACTIONS

- NOTE -

CVS letdown flow path may be unisolated intermittently under administrative controls.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CVS letdown isolation valve inoperable.	A.1 Restore CVS letdown isolation valve to OPERABLE status.	72 hours
B. Required Action and associated Completion Time of Condition A is not met. <u>OR</u> Two CVS letdown isolation valves inoperable.	B.1 Initiate action to isolate CVS letdown flow path by use of at least one closed and deactivated automatic valve.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.20.1 Verify CVS letdown isolation valves actuate to the isolation position on an actual or simulated actuation signal.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.1.1	Verify each accumulator isolation valve is fully open.	In accordance with the SFCP
SR 3.5.1.2	Verify the borated water volume in each accumulator is ≥ 1667 cu. ft., and ≤ 1732 cu. ft.	In accordance with the SFCP
SR 3.5.1.3	Verify the nitrogen cover gas pressure in each accumulator is ≥ 637 psig and ≤ 769 psig.	In accordance with the SFCP
SR 3.5.1.4	Verify the boron concentration in each accumulator is ≥ 2600 ppm and ≤ 2900 ppm.	In accordance with the SFCP <u>AND</u> ----- - NOTE - Only required for affected accumulators. ----- Once within 6 hours after each solution volume increase of ≥ 51 cu. ft. that is not the result of addition from the in-containment refueling water storage tank
SR 3.5.1.5	Verify power is removed from each accumulator isolation valve operator when pressurizer pressure is ≥ 2000 psig.	In accordance with the SFCP
SR 3.5.1.6	Verify system flow performance of each accumulator in accordance with the System Level OPERABILITY Testing Program.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One CMT inlet line with noncondensable gas volume not within limit.	D.1 Restore CMT inlet line noncondensable gas volume to within limit.	24 hours
E. One CMT inoperable for reasons other than Condition A, B, or D.	E.1 Restore CMT to OPERABLE status.	1 hour from discovery of LCO 3.5.2 Condition E entry concurrent with LCO 3.5.1 Condition B entry <u>AND</u> 8 hours
F. Required Action and associated Completion Time of Condition A, B, C, D, or E not met. <u>OR</u> Two CMTs inoperable for reasons other than Condition C.	F.1 Be in MODE 3. <u>AND</u> F.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.5.2.1 Verify the temperature of the borated water in each CMT is < 120°F.	In accordance with the SFCP
SR 3.5.2.2 Verify each CMT inlet isolation valve is fully open.	In accordance with the SFCP
SR 3.5.2.3 Verify the volume of noncondensable gases in each CMT inlet line has not caused the high-point water level to drop below the sensor.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.5.2.4	----- - NOTE - One CMT boron concentration may be < 3400 ppm provided it is ≥ 3100 ppm and the average of OPERABLE CMT boron concentrations is ≥ 3400 ppm. ----- Verify the boron concentration in each CMT is ≥ 3400 ppm and ≤ 4500 ppm.	In accordance with the SFCP
SR 3.5.2.5	Verify each CMT outlet isolation valve strokes open.	In accordance with the SFCP
SR 3.5.2.6	Verify each CMT outlet isolation valve actuates to the open position on an actual or simulated actuation signal.	In accordance with the SFCP
SR 3.5.2.7	Verify system flow performance of each CMT in accordance with the System Level OPERABILITY Testing Program.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.5.3.3 ----- - NOTE - Only required to be met in MODE 5 with RCS not VENTED. ----- Verify the borated water volume is ≥ 2450 cu. ft.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.4.1	Verify the PRHR HX outlet manual isolation valve is fully open.	In accordance with the SFCP
SR 3.5.4.2	Verify the PRHR HX inlet motor operated isolation valve is open.	In accordance with the SFCP
SR 3.5.4.3	Verify the volume of noncondensable gases in the PRHR HX inlet line has not caused the high-point water level to drop below the sensor.	In accordance with the SFCP
SR 3.5.4.4	----- - NOTE - Only required to be met when one or more reactor coolant pumps (RCPs) are in operation. ----- Verify one Loop 1 RCP is in operation.	In accordance with the SFCP
SR 3.5.4.5	Verify power is removed from the PRHR HX inlet motor operated isolation valve.	In accordance with the SFCP
SR 3.5.4.6	Verify both PRHR HX air operated outlet isolation valves stroke open and both IRWST gutter isolation valves stroke closed.	In accordance with the SFCP
SR 3.5.4.7	Verify by visual inspection that the IRWST gutter and downspout screens are not restricted by debris.	In accordance with the SFCP
SR 3.5.4.8	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.	In accordance with the SFCP
SR 3.5.4.9	Verify PRHR HX heat transfer performance in accordance with the System Level OPERABILITY Testing Program.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.6.1	Verify the IRWST water temperature is < 120°F.	In accordance with the SFCP
SR 3.5.6.2	Verify the IRWST borated water volume is ≥ 73,100 cu. ft.	In accordance with the SFCP
SR 3.5.6.3	Verify the volume of noncondensable gases in each of the four IRWST injection squib valve outlet line pipe stubs has not caused the high-point water level to drop below the sensor.	In accordance with the SFCP
SR 3.5.6.4	Verify the IRWST boron concentration is ≥ 2600 ppm and ≤ 2900 ppm.	In accordance with the SFCP <u>AND</u> Once within 6 hours after each solution volume increase of ≥ 15,000 gal
SR 3.5.6.5	Verify each motor operated IRWST isolation valve is fully open.	In accordance with the SFCP
SR 3.5.6.6	Verify power is removed from each motor operated IRWST isolation valve.	In accordance with the SFCP
SR 3.5.6.7	Verify each motor operated containment recirculation isolation valve is fully open.	In accordance with the SFCP
SR 3.5.6.8	Verify each IRWST injection and containment recirculation squib valve is OPERABLE in accordance with 10 CFR 50.55a(f).	In accordance with the SFCP
SR 3.5.6.9	----- - NOTE - Squib actuation may be excluded. ----- 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.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.5.6.10	Verify by visual inspection that the IRWST screens and the containment recirculation screens are not restricted by debris.	In accordance with the SFCP
SR 3.5.6.11	Verify IRWST injection and recirculation system flow performance in accordance with the System Level OPERABILITY Testing Program.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.7.1	----- - NOTE - Penetration flow path(s) may be unisolated intermittently under administrative controls. ----- Verify Spent Fuel Pool Cooling System containment isolation valves are closed.	In accordance with the SFCP
SR 3.5.7.2	For the IRWST and flow paths required to be OPERABLE, the following SRs are applicable: SR 3.5.6.1 SR 3.5.6.2 SR 3.5.6.4 SR 3.5.6.5 SR 3.5.6.6 SR 3.5.6.7 SR 3.5.6.8 SR 3.5.6.9 SR 3.5.6.10 SR 3.5.6.11	In accordance with applicable SRs
SR 3.5.7.3	----- - NOTE - Not required to be met during RCS vacuum fill operations. ----- For the IRWST and flow paths required to be OPERABLE, the following SR is applicable: SR 3.5.6.3	In accordance with applicable SR

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.8.1	Verify the IRWST and refueling cavity water temperature is < 120°F.	In accordance with the SFCP
SR 3.5.8.2	Verify the IRWST and refueling cavity water total borated water volume is ≥ 73,100 cu. ft.	In accordance with the SFCP
SR 3.5.8.3	----- - NOTES - 1. Penetration flow path(s) may be unisolated intermittently under administrative controls. 2. Only required to be met with refueling cavity and spent fuel pool volumes not in communication. ----- Verify Spent Fuel Pool Cooling System containment isolation valves are closed.	In accordance with the SFCP
SR 3.5.8.4	Verify the IRWST and refueling cavity boron concentration is ≥ 2600 ppm and ≤ 2900 ppm.	In accordance with the SFCP <u>AND</u> Once within 6 hours after each solution volume increase of ≥ 15,000 gal
SR 3.5.8.5	For the IRWST and flow paths required to be OPERABLE, the following SRs are applicable: SR 3.5.6.3 SR 3.5.6.6 SR 3.5.6.8 SR 3.5.6.10 SR 3.5.6.5 SR 3.5.6.7 SR 3.5.6.9 SR 3.5.6.11	In accordance with applicable SRs

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition C is not met. <u>OR</u> One or more RCPs with two breakers inoperable in MODE 5.	D.1 Initiate action to trip affected RCP breaker(s).	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.5.9.1	Verify each RCP breaker trips open on an actual or simulated actuation signal, except for breaker maintained in the tripped condition.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.2.1	----- - NOTES - 1. An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test. 2. Results shall be evaluated against acceptance criteria applicable to SR 3.6.1.1. ----- Perform required air lock leakage rate testing in accordance with the Containment Leakage Rate Testing Program.	In accordance with the Containment Leakage Rate Testing Program
SR 3.6.2.2	Verify only one door in the air lock can be opened at a time.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.3.1	Verify each 16 inch containment purge valve is closed, except when the 16 inch containment purge valves are open for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances which require the valves to be open.	In accordance with the SFCP
SR 3.6.3.2	----- - NOTE - Valves and blind flanges in high radiation areas may be verified by use of administrative controls. ----- Verify each containment isolation manual valve and blind flange that is located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.	In accordance with the SFCP
SR 3.6.3.3	----- - NOTE - Valves and blind flanges in high radiation areas may be verified by use of administrative controls. ----- Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.	Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days
SR 3.6.3.4	Verify the isolation time of each automatic power operated containment isolation valve is within limits.	In accordance with the SFCP
SR 3.6.3.5	Verify each automatic containment isolation valve that is not locked, sealed or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.	In accordance with the SFCP

3.6 CONTAINMENT SYSTEMS

3.6.4 Containment Pressure

LCO 3.6.4 Containment pressure shall be ≥ -0.2 psig and $\leq +1.0$ psig.

APPLICABILITY: MODES 1, 2, 3, and 4.
MODES 5 and 6 without an open containment air flow path ≥ 6 inches in diameter.

- NOTE -

The high pressure LCO limit is not applicable in MODES 5 or 6.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Containment pressure not within limits.	A.1 Restore containment pressure to within limits.	1 hour
B. Required Action and associated Completion Time of Condition A not met in MODE 1, 2, 3, or 4.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 5.	36 hours
C. Required Action and associated Completion Time of Condition A not met in MODE 5 or 6.	C.1 Initiate action to restore containment pressure to within limits.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.4.1 Verify containment pressure is within limits.	In accordance with the SFCP

3.6 CONTAINMENT SYSTEMS

3.6.5 Containment Air Temperature

LCO 3.6.5 Containment average air temperature shall be $\leq 120^{\circ}\text{F}$.

APPLICABILITY: MODES 1, 2, 3, and 4,
MODES 5 and 6 with both containment equipment hatches and both
containment airlocks closed.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Containment average air temperature not within limit.	A.1 Restore containment average air temperature to within limit.	8 hours
B. Required Action and associated Completion Time of Condition A not met in MODE 1, 2, 3, or 4.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 5.	36 hours
C. Required Action and associated Completion Time of Condition A not met in MODE 5 or 6.	C.1 Initiate action to restore containment average air temperature to within limit.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.6.5.1 Verify containment average air temperature is within limit.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Required Action and associated Completion time of Condition A, B, or C not met in MODE 5 or 6. <u>OR</u> LCO not met for reasons other than Condition A, B, or C in MODE 5 or 6.	E.1 Initiate action to restore passive containment cooling to OPERABLE status.	Immediately
	<u>AND</u> E.2 Suspend positive reactivity additions.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.6.1	Verify the water storage tank temperature $\geq 40^{\circ}\text{F}$ and $\leq 120^{\circ}\text{F}$.	In accordance with the SFCP
SR 3.6.6.2	Verify the water storage tank volume $\geq 756,700$ gallons.	In accordance with the SFCP
SR 3.6.6.3	Verify each passive containment cooling system 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.	In accordance with the SFCP
SR 3.6.6.4	Verify each passive containment cooling system automatic valve in each flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.6.5	Verify the air flow path from the shield building annulus inlet to the exit is unobstructed and, that all air baffle sections are in place.	In accordance with the SFCP
SR 3.6.6.6	Verify passive containment cooling system flow and water coverage performance in accordance with the System Level OPERABILITY Testing Program.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met. <u>OR</u> LCO not met for reasons other than Condition A.	B.1 Initiate action to restore compliance with the LCO.	Immediately
	<u>AND</u> B.2 Suspend positive reactivity additions.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.7.1	Verify each required containment penetration is in the required status.	In accordance with the SFCP
SR 3.6.7.2	----- - NOTE - Only required to be met for an open equipment hatch. ----- Verify the hardware, tools, equipment and power source necessary to close the equipment hatch are available.	Prior to hatch removal <u>AND</u> In accordance with the SFCP

3.6 CONTAINMENT SYSTEMS

3.6.8 pH Adjustment

LCO 3.6.8 The pH adjustment baskets shall contain $\geq 26,460$ lbs of trisodium phosphate (TSP).

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. The weight of TSP in the pH adjustment baskets not within limit.	A.1 Restore weight of TSP in the pH adjustment baskets to within limit.	72 hours
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 5.	84 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.8.1	Verify the pH adjustment baskets contain $\geq 26,460$ lbs of TSP.	In accordance with the SFCP
SR 3.6.8.2	Verify a sample from the pH adjustment baskets provides adequate pH adjustment of the post-accident water.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.9.1	Verify containment inside to outside differential air temperature is $\leq 90^{\circ}\text{F}$.	In accordance with the SFCP
SR 3.6.9.2	----- - NOTES - 1. Not required to be met for vacuum relief valves open during Surveillances. 2. Not required to be met for vacuum relief valves open when performing their vacuum relief function. ----- Verify each vacuum relief isolation valve is closed.	In accordance with the SFCP
SR 3.6.9.3	Verify (a) each vacuum relief check valve opens and closes with set pressure within limits, and (b) each vacuum relief isolation valve opening time is within limits.	In accordance with the SFCP
SR 3.6.9.4	Verify each vacuum relief isolation valve actuates on actual or simulated signals.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.1.1 ----- - NOTE - Only required to be performed in MODES 1 and 2. ----- Verify each MSSV lift setpoint per Table 3.7.1-2.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.2.1	----- - NOTE - Only required to be performed prior to entry into MODE 2. ----- Verify MSIV closure time is within limits on an actual or simulated actuation signal.	In accordance with the SFCP
SR 3.7.2.2	----- - NOTE - Only required to be performed prior to entry into MODE 2. ----- Verify required turbine stop, turbine control, turbine bypass, and moisture separator reheater 2nd stage steam isolation valves' closure time is within limits on an actual or simulated actuation signal.	In accordance with the SFCP
SR 3.7.2.3	Verify the isolation time of each MSIV bypass valve and main steam line drain isolation valve is within limits.	In accordance with the SFCP
SR 3.7.2.4	Verify each MSIV bypass valve and main steam line drain isolation valve actuates to the isolation position on an actual or simulated actuation signal.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3.	6 hours
	<u>AND</u>	
	D.2 Be in MODE 4 with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS).	24 hours
	<u>AND</u>	
	D.3 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.3.1 ----- - NOTE - Only required to be performed prior to entry into MODE 2. ----- Verify the closure time of each MFIV and MFCV is within limits on an actual or simulated actuation signal.	In accordance with the SFCP
SR 3.7.3.2 Verify each MFW pump breaker trips open on an actual or simulated actuation signal, except for pump breaker maintained in the tripped condition.	In accordance with the SFCP

3.7 PLANT SYSTEMS

3.7.4 Secondary Specific Activity

LCO 3.7.4 The specific activity of the secondary coolant shall be $\leq 0.01 \mu\text{Ci/gm}$
DOSE EQUIVALENT I-131.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Specific activity not within limit.	A.1 Be in MODE 3.	6 hours
	<u>AND</u>	
	A.2 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.4.1	Verify the specific activity of the secondary coolant $\leq 0.01 \mu\text{Ci/gm}$ DOSE EQUIVALENT I-131.	In accordance with the SFCP

3.7 PLANT SYSTEMS

3.7.5 Spent Fuel Pool Water Level

LCO 3.7.5 The spent fuel pool water level shall be ≥ 23 ft above the top of irradiated fuel assemblies seated in the storage racks.

APPLICABILITY: When irradiated fuel assemblies are stored in the spent fuel pool.

ACTIONS

- NOTE -

LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Spent fuel pool water level < 23 ft.	A.1 Suspend movement of irradiated fuel assemblies in the spent fuel pool.	Immediately
	<u>AND</u> A.2 Initiate action to restore water level to ≥ 23 ft.	1 hour

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.5.1 Verify the spent fuel pool water level is ≥ 23 ft above the top of the irradiated fuel assemblies seated in the storage racks.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.6.1	Verify the compressed air storage tanks contain > 327,574 scf of compressed air.	In accordance with the SFCP
SR 3.7.6.2	Verify thermal mass for the following heat sink locations is within limit: a. MCRE; b. Each required individual room adjacent to and below MCRE; c. Each required room-pair adjacent to and below MCRE; and d. Room above MCRE.	In accordance with the SFCP
SR 3.7.6.3	Operate VES for ≥ 15 minutes.	In accordance with the SFCP
SR 3.7.6.4	Verify each VES air header manual isolation valve is in an open position.	In accordance with the SFCP
SR 3.7.6.5	Verify the air quality of the compressed air storage tanks meets the requirements of CGA G-7.1, Commodity Specification for Air, Grade E, with a pressure dew point of $\leq 40^{\circ}\text{F}$ at ≥ 3400 psig.	In accordance with the SFCP
SR 3.7.6.6	Verify each MCRE isolation valve is OPERABLE and will close upon receipt of an actual or simulated actuation signal, except for valves that are locked, sealed, or otherwise secured in the closed position.	In accordance with the SFCP
SR 3.7.6.7	Verify each VES pressure relief isolation valve within the MCRE pressure boundary is OPERABLE.	In accordance with the SFCP
SR 3.7.6.8	Verify each VES pressure relief damper is OPERABLE.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.6.9	Perform required MCRE unfiltered air inleakage testing in accordance with the Main Control Room Envelope Habitability Program.	In accordance with the Main Control Room Envelope Habitability Program
SR 3.7.6.10	Perform required VES Passive Filtration system filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.6.11	Verify the MCR load shed function actuates upon receipt of an actual or simulated actuation signal.	In accordance with the SFCP
SR 3.7.6.12	Verify each VES main air delivery isolation valve actuates to the correct position upon receipt of an actual or simulated actuation signal.	In accordance with the SFCP

Technical Specifications

SFW Isolation Valves,
Control Valves,
and Pump Breakers
3.7.7

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3.	6 hours
	<u>AND</u>	
	D.2 Be in MODE 4 with the Reactor Coolant System (RCS) cooling provided by the Normal Residual Heat Removal System (RNS).	24 hours
	<u>AND</u>	
	D.3 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.7.1	Verify each SFW isolation and control valve is OPERABLE.	In accordance with the SFCP
SR 3.7.7.2	Verify each SFW isolation and control valve actuates to the isolation position on an actual or simulated actuation signal.	In accordance with the SFCP
SR 3.7.7.3	Verify each SFW pump breaker trips open on an actual or simulated actuation signal, except for pump breaker maintained in the tripped condition.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3.	6 hours
	<u>AND</u>	
	E.2 Be in MODE 4 with the RCS cooling provided by the RNS.	24 hours
	<u>AND</u>	
	----- - NOTE - Not applicable for inoperable PORV(s). -----	
	E.3 Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.10.1	Verify each SG PORV, PORV block valve, and SG blowdown isolation valve strokes closed.	In accordance with the SFCP
SR 3.7.10.2	Verify the isolation time of each PORV block valve and SG blowdown isolation valve is within limits.	In accordance with the SFCP
SR 3.7.10.3	Verify each SG PORV, PORV block valve, and SG blowdown isolation valve actuates to the isolation position on an actual or simulated actuation signal.	In accordance with the SFCP

3.7 PLANT SYSTEMS

3.7.11 Spent Fuel Pool Boron Concentration

LCO 3.7.11 The spent fuel pool boron concentration shall be ≥ 2300 ppm.

APPLICABILITY: When fuel assemblies are stored in the spent fuel pool.

ACTIONS

- NOTE -

LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Spent fuel pool boron concentration not within limit.	A.1 Suspend movement of fuel assemblies in the spent fuel pool.	Immediately
	<u>AND</u> A.2 Initiate action to restore spent fuel pool boron concentration to within limit.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.11.1 Verify the spent fuel pool boron concentration is within limit.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more batteries in one division inoperable.	C.1 Restore batteries to OPERABLE status.	6 hours
D. One or more batteries in two divisions inoperable.	D.1 Restore batteries to OPERABLE status.	2 hours
E. One DC electrical power subsystem inoperable for reasons other than Condition A or C.	E.1 Restore DC electrical power subsystem to OPERABLE status.	6 hours
F. Two DC electrical power subsystems inoperable for reasons other than B or D.	F.1 Restore DC electrical power subsystem to OPERABLE status.	2 hours
G. Required Action and associated Completion Time of Condition A, B, C, D, E, or F not met. <u>OR</u> Three or more DC electrical power subsystems inoperable.	G.1 Be in MODE 3. <u>AND</u> G.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.1.1 Verify battery terminal voltage is greater than or equal to the minimum established float voltage.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.2	Verify each battery charger supplies ≥ 150 amps at greater than or equal to the minimum established float voltage for ≥ 8 hours. <u>OR</u> Verify each battery charger can recharge the battery to the fully charged state within 24 hours while supplying the largest combined demands of the various continuous steady state loads, after a battery discharge to the bounding design basis event discharge state.	In accordance with the SFCP
SR 3.8.1.3	----- - NOTE - The modified performance discharge test in SR 3.8.7.6 may be performed in lieu of SR 3.8.1.3. ----- Verify battery capacity is adequate to supply, and maintain in OPERABLE status, the required emergency loads for the design duty cycle when subjected to a battery service test.	In accordance with the SFCP
SR 3.8.1.4	----- - NOTE - Only required to be met when the main control room air supply radiation monitor sample pumps are energized. ----- Verify main control room air supply radiation monitor sample pump deenergizes on an actual or simulated actuation signal.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.3.1	Verify correct inverter voltage, frequency, and alignment to required AC instrument and control buses.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.4.1	Verify correct inverter voltage, frequency, and alignments to required AC instrument and control buses.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.5.1	Verify correct breaker and switch alignments and voltage to required DC and AC instrument and control electrical power distribution subsystems.	In accordance with the SFCP

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.2.4 Initiate actions to restore required DC and AC instrument and control electrical power distribution subsystems to OPERABLE status.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.6.1 Verify correct breaker and switch alignments and voltage to required DC and AC instrument and control electrical power distribution subsystems.	In accordance with the SFCP

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Required Action and associated Completion Time not met. <u>OR</u> One or more batteries in one division with one or more battery cells float voltage < 2.07 V and float current > 2 amps.	F.1 Declare associated battery inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.8.7.1 ----- - NOTE - Not required to be met when battery terminal voltage is less than the minimum established float voltage of SR 3.8.1.1. ----- Verify each battery float current is ≤ 2 amps.	In accordance with the SFCP
SR 3.8.7.2 Verify each battery pilot cell float voltage is ≥ 2.07 V.	In accordance with the SFCP
SR 3.8.7.3 Verify each battery connected cell electrolyte level is greater than or equal to minimum established design limits.	In accordance with the SFCP
SR 3.8.7.4 Verify each battery pilot cell temperature is greater than or equal to minimum established design limits.	In accordance with the SFCP
SR 3.8.7.5 Verify each battery connected cell float voltage is ≥ 2.07 V.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.7.6	Verify battery capacity is $\geq 80\%$ of the manufacturer's rating when subjected to a performance discharge test or a modified performance discharge test.	In accordance with the SFCP or 25% of expected life, whichever is less <u>AND</u> 12 months when battery shows degradation, or has reached 85% of the expected life with capacity $< 100\%$ of manufacturer's rating <u>AND</u> 24 months when battery has reached 85% of the expected life with capacity $\geq 100\%$ of manufacturer's rating

3.9 REFUELING OPERATIONS

3.9.1 Boron Concentration

LCO 3.9.1 Boron concentration of the Reactor Coolant System (RCS), the fuel transfer canal, and the refueling cavity shall be maintained within the limit specified in COLR.

APPLICABILITY: MODE 6.

- NOTE -

Applicable to the fuel transfer canal and the refueling cavity only when connected to the RCS.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Boron concentration not within limit.	A.1 Suspend positive reactivity additions.	Immediately
	<u>AND</u> A.2 Initiate actions to restore boron concentration to within limits.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.9.1.1 Verify boron concentration is within the limit specified in the COLR.	In accordance with the SFCP

3.9 REFUELING OPERATIONS

3.9.2 Unborated Water Source Flow Paths

LCO 3.9.2 One valve in each unborated water source flow path shall be secured in the closed position.

APPLICABILITY: MODE 6.

ACTIONS

- NOTE -

Separate condition entry is allowed for each unborated water source flow path.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ----- - NOTE - Required Action A.2 must be completed whenever Condition A is entered. ----- One or more unborated water source flow paths with no valve secured in the closed position.	A.1 Initiate actions to secure one valve in the flow path in the closed position.	Immediately
	<u>AND</u> A.2 Perform SR 3.9.1.1.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.9.2.1 Verify one valve in each unborated water source flow path is secured in the closed position.	In accordance with the SFCP

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.3.1	Perform a CHANNEL CHECK.	In accordance with the SFCP
SR 3.9.3.2	----- - NOTE - Neutron detectors are excluded from CHANNEL CALIBRATION. ----- Perform CHANNEL CALIBRATION.	In accordance with the SFCP

3.9 REFUELING OPERATIONS

3.9.4 Refueling Cavity Water Level

LCO 3.9.4 Refueling Cavity Water Level shall be maintained ≥ 23 ft above the top of the reactor vessel flange.

APPLICABILITY: During movement of irradiated fuel assemblies within containment.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Refueling cavity water level not within limit.	A.1 Suspend movement of irradiated fuel assemblies within containment.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.9.4.1 Verify refueling cavity water level is ≥ 23 ft above the top of reactor vessel flange.	In accordance with the SFCP

5.5 Programs and Manuals

5.5.2 Radioactive Effluent Control Program (continued)

- ii. For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days: a dose rate ≤ 1500 mrem/yr to any organ;
- 8. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I;
- 9. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives > 8 days in gaseous effluents released from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and
- 10. Limitations on the annual dose or dose commitment to any member of the public, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190.
- b. The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency.

5.5.3 Not used.

5.5.4 Steam Generator (SG) Program

A Steam Generator Program shall be established and implemented to ensure that SG tube integrity is maintained. In addition, the Steam Generator Program shall include the following provisions:

- a. Provisions for condition monitoring assessments. Condition monitoring assessment means an evaluation of the "as found" condition of the tubing with respect to the performance criteria for structural integrity and accident induced leakage. The "as found" condition refers to the condition of the tubing during an SG inspection outage, as determined from the inservice inspection results or by other means, prior to the plugging of tubes. Condition monitoring assessments shall be conducted during each outage during which the SG tubes are inspected or plugged, to confirm that the performance criteria are being met.

5.5 Programs and Manuals

5.5.12 Main Control Room Envelope Habitability Program

A Main Control Room Envelope (MCRE) Habitability Program shall be established and implemented to ensure that MCRE habitability is maintained such that, with an OPERABLE Main Control Room Emergency Habitability System (VES), MCRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event, hazardous chemical release, or a smoke challenge. The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the MCRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem total effective dose equivalent (TEDE) for the duration of the accident. The program shall include the following elements:

- a. The definition of the MCRE and the MCRE boundary.
- b. Requirements for maintaining the MCRE boundary in its design condition, including configuration control and preventive maintenance.
- c. Requirements for (i) determining the unfiltered air leakage past the MCRE boundary into the MCRE at Frequencies in accordance with the SFCP and in accordance with the testing methods and at the event-driven frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing MCRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.
- d. Measurement, at designated locations, of the MCRE pressure relative to all external areas adjacent to the MCRE boundary during the pressurization mode of operation of one VES air delivery flow path, operating at the required flow rate of 65 ± 5 scfm, at a Frequency in accordance with the SFCP. The results shall be trended and used as part of the periodic assessment of the MCRE boundary.
- e. The quantitative limits on unfiltered air leakage into the MCRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air leakage measured by the testing described in paragraph c. The unfiltered air leakage limit for radiological challenges is the leakage flow rate assumed in the licensing basis analyses of DBA consequences. Unfiltered air leakage limits for hazardous chemicals must ensure that exposure of MCRE occupants to these hazards will be within the assumptions in the licensing basis.

5.5 Programs and Manuals

5.5.12 Main Control Room Envelope Habitability Program (continued)

- f. The provisions of SR 3.0.2 are applicable to the Frequencies for assessing MCRE habitability, determining MCRE unfiltered inleakage, and measuring MCRE pressure and assessing the MCRE boundary as required by paragraphs c and d, respectively.

5.5.13 Ventilation Filter Testing Program (VFTP)

- a. A program shall be established to implement the following required testing of the VES.

Tests described in Specification 5.5.13.a.1 and 5.5.13.a.2 shall be performed: i) at Frequencies in accordance with the SFCP, ii) after partial or complete replacement of a HEPA filter or charcoal adsorber, iii) following detection of, or evidence of, penetration or intrusion of water or other material into any portion of the VES that may have an adverse effect on the functional capability of the filters, and iv) following painting, fire, or chemical release in any ventilation zone communicating with the VES that may have an adverse effect on the functional capability of the system.

Tests described in Specification 5.5.13.a.3 shall be performed: i) at a Frequency in accordance with the SFCP, ii) following painting, fire, or chemical release in any ventilation zone communicating with the VES that may have an adverse effect on the functional capability of the carbon media, and iii) following detection of, or evidence of, penetration or intrusion of water or other material into any portion of the VES that may have an adverse effect on the functional capability of the carbon media.

Tests described in 5.5.13.a.4 shall be performed at a Frequency in accordance with the SFCP.

1. Demonstrate for the VES that an inplace test of the high efficiency particulate air (HEPA) filter shows a penetration and system bypass $\leq 0.05\%$ when tested in accordance with Regulatory Guide 1.52, Revision 3, and ASME N510-1989 at a flow rate at least 600 cfm greater than the VES makeup flow rate.

Ventilation System

Flow Rate

VES

$\geq 600 + \text{VES makeup flow rate (cfm)}$

5.5 Programs and Manuals

5.5.13 Ventilation Filter Testing Program (continued)

2. Demonstrate for the VES that an inplace test of the charcoal adsorber shows a penetration and system bypass $\leq 0.05\%$ when tested in accordance with Regulatory Guide 1.52, Revision 3, and ASME N510-1989 at a flow rate at least 600 cfm greater than the VES makeup flow rate.

Ventilation System

Flow Rate

VES

$\geq 600 + \text{VES makeup flow rate (cfm)}$

3. Demonstrate for the VES that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 3, shows the methyl iodide penetration less than the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C (86°F) and the relative humidity specified below.

Ventilation System

Penetration

RH

VES

5%

95%

4. Demonstrate for the VES that the pressure drop across the combined HEPA filter, the charcoal adsorber, and the post filter is less than the value specified below when tested at the system flow rate specified below +/- 10%.

ESF Ventilation System

Delta P

Flow Rate

VES

5 in. water
gauge

660 cfm

- b. The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

5.5.14 Setpoint Program (SP)

- a. The Setpoint Program (SP) implements the regulatory requirement of 10 CFR 50.36(c)(1)(ii)(A) that technical specifications will include items in the category of limiting safety system settings (LSSS), which are settings for automatic protective devices related to those variables having significant safety functions.

5.5 Programs and Manuals

5.5.14 Setpoint Program (SP) (continued)

- b. The Nominal Trip Setpoint (NTS), As-Found Tolerance (AFT), and As-Left Tolerance (ALT) for each Technical Specification required automatic protection instrumentation function shall be calculated in conformance with WCAP-16361-P, "Westinghouse Setpoint Methodology for Protection Systems – AP1000," February 2011.
- c. For each Technical Specification required automatic protection instrumentation function, performance of a CHANNEL CALIBRATION surveillance "in accordance with the Setpoint Program" shall include the following:
 - 1. The as-found value of the instrument channel trip setting shall be compared with the previously recorded as-left value.
 - i. 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 surveillance requirement met and returning the instrument channel to service. An Instrument Channel is determined to be functioning in accordance with its design basis if it can be set to within the ALT. This as-found condition shall be entered into the plant's corrective action program.
 - ii. If the as-found value of the instrument channel trip setting is less conservative than the specified AFT, the surveillance requirement is not met and the instrument channel shall be immediately declared inoperable.
 - 2. The instrument channel trip setting shall be set to a value within the specified ALT around the specified NTS at the completion of the surveillance; otherwise, the surveillance requirement is not met and the instrument channel shall be immediately declared inoperable.
- d. The difference between the instrument channel trip setting as-found value and the previously recorded as-left value for each Technical Specification required automatic protection instrumentation function shall be trended and evaluated to verify that the instrument channel is functioning in accordance with its design basis.

5.5 Programs and Manuals

5.5.14 Setpoint Program (SP) (continued)

- e. The SP shall establish a document containing the current value of the specified NTS, AFT, and ALT for each Technical Specification required automatic protection instrumentation function and references to the calculation documentation. Changes to this document shall be governed by the regulatory requirement of 10 CFR 50.59. In addition, changes to the specified NTS, AFT, and ALT values shall be governed by the approved setpoint methodology. This document, including any revisions or supplements, shall be provided upon issuance to the NRC.

5.5.15 Surveillance Frequency Control Program (SFCP)

This program provides controls for Surveillance Frequencies and the frequencies of other periodic testing required by these Technical Specifications (herein also referred to as Surveillance Frequencies). The program shall ensure that Surveillance Requirements and other required testing specified in these Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operation and other requirements are met.

- a. The SFCP shall contain a list of Frequencies controlled by the program.
 - b. Changes to the Frequencies listed in the SFCP shall be made:
 - 1. In accordance with the requirements of 10 CFR 50.55a for testing required by 10 CFR 50.55a(f);
 - 2. In accordance with the requirements of 10 CFR 50.69(d)(2) for testing permitted under 10 CFR 50.69(b)(1)(v) in lieu of testing required by 10 CFR 50.55a(f);
 - 3. Otherwise, in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1, or as specifically approved by the NRC.
 - c. The provisions of Surveillance Requirements 3.0.2 and 3.0.3 are applicable to the Frequencies established in the SFCP, except:
 - 1. For testing required by 10 CFR 50.55a(f), Surveillance Requirement 3.0.2 is only applicable as permitted by that regulation; and
 - 2. Surveillance Requirement 3.0.3 is only applicable to other required testing when invoked by a Chapter 5 Specification.
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 220 AND 217

TO THE COMBINED LICENSE NOS. NPF-91 AND NPF-92

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MEAG POWER SPVM, LLC

MEAG POWER SPVJ, LLC

MEAG POWER SPVP, LLC

CITY OF DALTON, GEORGIA

VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4

DOCKET NOS. 52-025 AND 52-026

1.0 INTRODUCTION

By letter dated February 26, 2026 (Agencywide Documents and Access Management System Accession No. ML26057A390), as supplemented by letter dated July 21, 2026 (ML26202A388), Southern Nuclear Operating Company, Inc. (SNC, the licensee) submitted a License Amendment Request (LAR) to the U.S. Nuclear Regulatory Commission (NRC) for Vogtle Electric Generating Plant (Vogtle), Units 3 and 4. The proposed amendments would revise the combined licenses and the Technical Specifications (TS) for Vogtle, Units 3 and 4, to implement an industry-standard Surveillance Frequency Control Program (SFCP) and concurrently adopt three Technical Specifications Task Force (TSTF) Travelers associated with risk-informed surveillance interval control:

- TSTF-425, Revision 3, "Relocate Surveillance Frequencies to Licensee Control – RITSTF Initiative 5b" – which provides a methodology and model TS changes for relocating most periodic surveillance requirement frequencies from the TS to a licensee-controlled program (the SFCP).
- TSTF-563, Revision 0, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program" – which revises certain TS instrumentation testing definitions to

allow flexible surveillance frequencies for individual components of an instrument channel under the SFCP.

- TSTF-596, Revision 2, “Expand the Applicability of the Surveillance Frequency Control Program (SFCP)”– which expands the scope of the SFCP to cover additional surveillance frequencies (including those of specific TS administrative programs and Inservice Testing requirements) and provides clarifications for the application of standard TS provisions to SFCP-managed intervals.

These Travelers were approved previously by the NRC for inclusion in the Standard Technical Specifications (STS) of operating reactors, but they had not yet been approved generically for the AP1000 plant design at the time of issuance. As a result, the licensee’s LAR includes a plant-specific evaluation of each traveler’s technical and regulatory applicability to the Vogtle, Units 3 and 4, TS. In its submittal, the licensee provided a detailed description of the proposed changes (including marked-up TS pages), a confirmation of applicability of each traveler to the AP1000 design, and a No Significant Hazards Consideration analysis. The licensee also referenced the NRC’s model safety evaluations (SEs) for TSTF-425 (published in the *Federal Register* on July 6, 2009, 74 FR 31996), TSTF-563 (final SE dated December 4, 2018, ML18333A144), and TSTF-596 (final SE dated December 30, 2024, ML24362A056), as guidance in developing the LAR.

SNC noted that, with this amendment, Vogtle, Units 3 and 4, will be the last of the eight reactors in the Southern Nuclear fleet to implement a SFCP. SNC’s other units have previously adopted TSTF-425 or similar changes. Thus, the risk-informed surveillance frequency control concepts are well understood and have been successfully applied by the licensee at its other sites for several years. Because no single generic SE exists that combines TSTFs 425, 563, and 596 together, the NRC staff’s evaluation below consolidates the relevant technical analyses from the individual model SEs and past precedent into one comprehensive review. The NRC staff has adjusted the discussion to focus on the plant-specific considerations for the AP1000 design and Vogtle Units 3 and 4. This SE documents the NRC staff’s review and the technical and regulatory basis for approving the proposed TS changes, such that a reader unfamiliar with the licensee’s request can understand the exact changes being made and the reasons why the NRC finds them acceptable.

The supplemental letter dated July 21, 2026, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff’s original proposed no significant hazards consideration determination as published in the *Federal Register* on May 12, 2026 (91 FR 25932). The NRC did not receive public comments on this finding.

2.0 REGULATORY EVALUATION

2.1 Proposed Changes

Surveillance Frequency Control Program Implementation (TSTF-425): The amendment will establish an Administrative Controls program called the SFCP at Vogtle, Units 3 and 4, to be listed as TS Section 5.5.15, “Surveillance Frequency Control Program.” This new program provides a risk-informed process by which the licensee may modify the frequency of certain periodic Surveillance Requirements (SRs) in the TS. To implement the SFCP, the licensee will relocate the numerical frequency values for eligible surveillances from various sections of the TS into the SFCP program. In the affected TS SRs, the existing wording (which typically specifies a periodic frequency, e.g., “18 months” or “once per 7 days”) will be replaced with the phrase “In accordance with the Surveillance Frequency Control Program.” The SFCP program description (TS 5.5.15) will define the scope of surveillances whose frequencies are controlled by the SFCP and will require that any changes to those surveillance intervals be made in

accordance with the NRC-approved methodology documented in Nuclear Energy Institute (NEI) Report 04-10, Revision 1, "Risk-Informed Technical Specification Initiative 5b, Risk-Informed Method for Control of Surveillance Frequencies," as endorsed by the NRC in 2007 (ML071360456 and ML072570267, respectively). The SFCP description will also include additional change control requirements from TSTF-596, stating that changes to surveillance intervals that are required to be in accordance with Title 10 of the Code of Federal Regulations (10 CFR) Part 50.55a for any tests required by the American Society of Mechanical Engineers (ASME) Code (Inservice Testing), and with 10 CFR 50.69(d)(2) for any intervals that might be adjusted pursuant to an approved Risk-Informed Safety Category categorization program (10 CFR 50.69). Finally, the program description specifies that, unless otherwise restricted by the regulations above, surveillance frequency changes are to be evaluated and implemented using NEI 04-10, Revision 1.

Instrumentation Testing Definition Changes (TSTF-563): The amendment will revise three TS Definitions in Section 1.1 – CHANNEL CALIBRATION, CHANNEL OPERATIONAL TEST (COT), and TRIP ACTUATION DEVICE OPERATIONAL TEST (TADOT) – to incorporate the concepts of the SFCP into these testing definitions. Under the current definitions, when an instrumentation channel is tested or calibrated, all components in that channel are required to be tested at a single periodic frequency (usually determined by the component that demands the most frequent testing for the channel to be considered operable). The proposed changes address this issue by adding a sentence to each of the definitions, stating that "each step [of a multistep channel test] must be performed within the Frequency in the Surveillance Frequency Control Program for the devices included in the step" (consistent with TSTF-563). In practical terms, this means that once an SFCP is in place (as proposed for Vogtle, Units 3 and 4), the licensee can establish a different surveillance interval for each portion of an instrument channel test, commensurate with the performance of the devices involved in that portion. The TS still requires the full channel to be within specification (i.e., all necessary steps must be completed to consider the SR met), but the frequencies of those steps are managed by the SFCP.

Expansion of SFCP Scope and Related Changes (TSTF-596): The amendment includes adoption of TSTF-596, Revision 2, which expands the SFCP to cover additional surveillance frequencies and makes clarifying edits regarding its use. The first set of changes extends the SFCP coverage to certain recurring tests specified in TS Section 5.5, "Programs and Manuals." Standard TS include programmatic control of some surveillance-type activities (for example: the Ventilation Filter Testing Program for engineered safety feature ventilation systems; the Diesel Fuel Oil Testing Program; the Primary Coolant Sources Outside Containment Program for leakage monitoring; and the Control Room Envelope (CRE) Habitability Program for testing the control room ventilation integrity). These programs normally define their own testing frequencies in TS (often based on regulatory guides or industry standards). TSTF-596 allows licensees with an SFCP to relocate those frequencies to the SFCP. In the Vogtle, 3 and 4, TS, the applicable programs are the Main Control Room Emergency Habitability System (VES) Ventilation Filter Testing Program (TS 5.5.13) and the Control Room Envelope Habitability Program (TS 5.5.12). The licensee proposed to change the specified test intervals in those program descriptions – for example, the required integrated in-place charcoal filter test and ventilation system pressure drop tests (VES), and the control room inleakage testing for CRE habitability – to state that they will be performed "at a Frequency in accordance with the Surveillance Frequency Control Program," rather than at fixed intervals (e.g., "once per 18 months"). With this change, the SFCP will manage the periodicity of these tests using the NEI 04-10 process, potentially allowing the licensee to adjust the frequency of, say, a charcoal filter test if supported by risk and empirical data (while still meeting the intent of Regulatory Guide (RG) 1.52 for maintaining filter efficiency). The Diesel Fuel Oil Testing Program and Primary Coolant Sources Outside Containment Program are not included in the Vogtle, Units 3 and 4 (AP1000) TS, so no changes were needed for those program frequencies in this amendment.

TSTF-596 also addresses SRs associated with the Inservice Testing (IST) Program. Traditionally, TS may reference an "Inservice Testing Program" which implements the pump and valve testing requirements of 10 CFR 50.55a(f) (ASME Code requirements). Since TSTF-425 did not originally relocate surveillance frequencies that were associated with such programs, TSTF-596 provides a way to incorporate IST intervals into the SFCP. In the Vogtle, 3 and 4, amendment, the TS definition of "Inservice Testing Program" is removed (as the program will no longer be separately described in TS), and SRs that previously stated "in accordance with the Inservice Testing Program" are revised. For example, SR 3.4.11.3 (automatic depressurization system squib valve tests) and SR 3.5.6.8 (in-containment refueling water storage tank squib valve tests), which are required to be done per the IST Program, are revised to state that testing will be performed in accordance with 10 CFR 50.55a(f) (i.e., per the ASME Code) on the required schedule. In other cases, an IST frequency that was stated explicitly (e.g., a pump test every 3 months) might be replaced with "in accordance with the SFCP," thus relocating it to the program. The SFCP program description in TS 5.5.15 is also updated (as noted above) to ensure that changes to any Code-required test frequency must be in accordance with the requirements of 10 CFR 50.55a, and similarly that any use of 10 CFR 50.69 to extend test intervals for low-risk components must be in compliance with §50.69(d)(2) criteria.

Clarifications on SR Application: Another element of TSTF-596 is the clarification of how certain standard TS provisions apply to surveillances under the SFCP. The licensee's proposed TS 5.5.15 includes statements (mirroring TSTF-596's STS changes) that: (1) the TS SR 3.0.2 (which allows an extension or "grace period" for timing of conducting a surveillance) is only applicable to surveillance frequencies that are required to be performed in accordance with 10 CFR 50.55 only to the extent that they are permitted by that regulation for Code-required testing; and (2) TS Surveillance Requirement 3.0.3 (which addresses missed surveillances) is only applicable to TS Chapter 5 testing frequencies only where specifically invoked by a TS Chapter 5 specification. These clarifications ensure that the standard rules for flexibility in surveillance scheduling are not applied in a manner that would violate regulatory requirements (for example, ASME Code test intervals already incorporate grace periods and cannot be arbitrarily extended beyond what the Code allows).

2.2 Regulatory Requirements

The regulation at 10 CFR 50.36 establishes the requirements for the content of technical specifications. Pursuant to 10 CFR 50.36(c)(3) TS "Surveillance Requirements" are requirements relating to inspections, tests, and calibrations necessary to ensure that the necessary quality of systems and components is maintained, that facility operation remains within safety limits, and that the limiting conditions for operation (LCOs) will be met.

The Federal Register notice published on July 6, 2009 (74 FR 31996), which announced the availability of TSTF-425, Revision 3, states that the addition of the SFCP is added to the TS Programs and Manuals section, which falls under 10 CFR 50.36(c)(5), "Administrative controls." This regulation requires that TS include the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to ensure safe operation of the facility.

The regulation at 10 CFR 50.55a(f) requires that nuclear power plant licensees perform preservice and inservice testing of certain safety-related components (such as pumps and valves) in accordance with the applicable editions of the ASME Boiler and Pressure Vessel Code (Section XI) and the ASME Operation and Maintenance (OM) Code, or NRC-approved alternatives.

The regulations in 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants" (i.e., the Maintenance Rule), and 10 CFR Part 50, "Domestic Licensing of Production and Utilization," Appendix B, Criterion XVI, "Corrective Action," require licensees to monitor

surveillance test failures and implement corrective actions to address such failures. In addition, the licensee proposed TS 5.5.15 would require the licensee to monitor the performance of systems, structures, and components (SSCs) for surveillance frequencies that are decreased under the SFCP to assure reduced testing does not adversely impact the SSCs.

The regulation at 10 CFR 50.69 provides a voluntary alternative regulatory framework where a licensee can categorize structures, systems, and components (SSCs) based on their risk significance and, for low-risk SSCs (termed RISC-3), may revise certain special treatments (such as the frequency of surveillances). Vogtle, Units 3 and 4, have not adopted 10 CFR 50.69; however, the licensee's TS changes include references to 10 CFR 50.69(d)(2) in TS 5.5.15 (SFCP description). This is a forward-fitting provision from TSTF-596 and the NRC-approved model changes, ensuring that if Vogtle implements 10 CFR 50.69 in the future, any surveillance frequency adjustments for RISC-3 components will follow the requirements of 10 CFR 50.69(d)(2) (which in turn allows the modification of surveillance testing in lieu of 10 CFR 50.55a(f) for such components). This TS wording does not grant any new privilege or relief by itself; it simply makes clear that the SFCP program will adhere to 10 CFR 50.69 provisions, if, and when that regulation is adopted at Vogtle through a license amendment.

2.3 Regulatory Guidance

The NRC staff considered the following guidance during its review of the proposed changes:

RG 1.174, Revision 3, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis," January 2018 (ML17317A256).

RG 1.177, Revision 2, "Plant-Specific, Risk-Informed Decision making: Technical Specifications," January 2021 (ML20164A034).

RG 1.200, Revision 3, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities," December 2020 (ML20238B871).

RG 1.200, Revision 2, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," March 2009, (ML090410014).

These RGs outline an approach and criteria acceptable to the NRC for risk-informed changes to a plant's licensing basis, including TS changes. In particular, RG 1.174 identifies five key safety principles that should be satisfied for risk-informed TS changes:

- Principle 1: The proposed licensing basis change meets the current regulations unless it is explicitly related to a requested exemption (i.e., a specific exemption under 10 CFR 50.12).
- Principle 2: The proposed licensing basis change is consistent with the defense-in-depth [DID] philosophy.
- Principle 3: The proposed licensing basis change maintains sufficient safety margins
- Principle 4: When proposed licensing basis changes result in an increase in risk, the increases should be small and consistent with the intent of the Commission's policy statement on safety goals for the operation of nuclear power plants.

- Principle 5: The impact of the proposed licensing basis change should be monitored using performance measurement strategies.

The NRC staff evaluated the Vogtle, 3 and 4, amendments against these principles; the detailed evaluation is provided in Section 3.1 of this SE.

NUREG-0800, Chapter 16, Section 16.1, Revision 1, "Risk-Informed Decision making: Technical Specifications" (ML070380228), provides guidance for changes to surveillance test intervals (STIs) (i.e., surveillance frequencies) as part of risk-informed decision making.

NUREG-0800, Chapter 19, Section 19.1, Revision 3, "Determining the Technical Adequacy of Probabilistic Risk Assessment for Risk-Informed License Amendment Requests After Initial Fuel Load" (ML12193A107), provides guidance on evaluating probabilistic risk assessment (PRA) technical adequacy.

NUREG-0800, Chapter 19, Section 19.2, "Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis: General Guidance" (ML071700658), provides general guidance for evaluating the technical basis for proposed risk-informed changes and references the same criteria as RG 1.174, Revision 3, and states that a risk-informed application should be evaluated to ensure that the proposed changes meet the above five key safety principles.

NUREG-2194, "Standard Technical Specifications: Westinghouse Advanced Passive 1000 (AP-1000) Plants," Revision 1, January 2024.

In addition, the staff considered the NRC's Final Policy Statement on TS Improvements (July 22, 1993, 58 FR 39132), which supports the use of PRA and risk-informed methods to improve TS requirements (so long as established safety criteria are maintained), and the Commission's Safety Goal Policy Statement (Aug. 21, 1986, 51 FR 30028), which provides the overarching philosophy that acceptable risk changes should remain consistent with the NRC's safety goals for nuclear power plants. The staff also notes that the NRC's 1995 Policy Statement on the Use of PRA (August 16, 1995, 60 FR 42622) encourages expansion of PRA applications in regulatory matters. The risk-informed surveillance frequency control initiative (Initiative 5b) and the TSTF travelers proposed to be adopted in this amendment advance the Commission policies and guidance documents. The NRC staff's evaluation of the proposed changes has been informed by the acceptance criteria and philosophy contained therein.

The NRC staff also considered NRC-approved guidance in NEI 04-10, Revision 1, and applicability of the proposed SFCP for Vogtle, Units 3 and 4.

3.0 TECHNICAL EVALUATION

3.1 Relocation of Surveillance Frequencies to Licensee Control – Adoption of TSTF-425 (Surveillance Frequency Control Program)

TSTF-425 establishes the process and basis for relocating most periodic surveillance intervals from the TS to a licensee-controlled program, referred to as the SFCP. The Vogtle, Units 3 and 4, amendments will implement TSTF-425 by introducing new TS 5.5.15 and modifying numerous existing SRs to replace fixed surveillance frequency values with references to the SFCP. Under this approach, the SRs themselves remain in the TS (as required by 10 CFR 50.36), but the specified frequency for performing each surveillance is managed by the licensee via the SFCP. The SFCP is subject to TS administrative control requirements and uses a risk-informed methodology (NEI 04-10, Revision 1) to evaluate and approve any changes to surveillance intervals.

In adopting TSTF-425, the licensee is only relocating those surveillance frequencies that are amenable to risk-informed control (i.e., routinely scheduled periodic surveillances). SRs that are event-driven or one-time (for example, surveillances that occur once after reaching a certain power level or each time a specific plant event occurs) remain unchanged in the TS, as do surveillance frequencies that are governed by other approved programs (such as the Reactor Vessel Inservice Inspection or primary containment leakage rate testing programs). TSTF-425 explicitly excluded these categories from relocation to ensure that unique or conditional SRs would continue to be controlled directly by TS and applicable regulations. The licensee's LAR follows these. By adopting TSTF-596 (as discussed in section 4.3), the licensee also proposes to handle the previously excluded IST Program frequencies and TS 5.5 program surveillances by including them within the SFCP (with appropriate constraints). The NRC staff finds that the licensee's selection of surveillance frequencies for relocation is consistent with the traveler guidance and retains any necessary non-periodic test requirements in the TS. Therefore, the scope of the new SFCP at Vogtle, 3 and 4, is appropriate and does not omit any surveillance intervals that should remain under direct TS control.

The SFCP at Vogtle, Units 3 and 4, will be governed by the requirements of NEI 04-10, Revision 1, which the NRC staff previously approved for use by licensees by letter dated September 19, 2007, (ML072570267). NEI 04-10 provides a structured, step-by-step process to evaluate proposed changes to surveillance frequencies in a manner that integrates deterministic engineering judgment and probabilistic risk analysis. Key elements of the methodology include: (1) verifying that the proposed new frequency is not in conflict with existing design requirements, safety analysis assumptions, or accepted industry standards/codes; (2) assessing past component performance and failure history to ensure the surveillance interval is appropriate (i.e., that the component can be expected to perform reliably for the duration of the extended interval); (3) calculating the change in risk (both core damage frequency and large early release frequency) that would result from the surveillance interval adjustment, using the plant's PRA model and comparing the results to the acceptance criteria of RG 1.174 and RG 1.177; (4) evaluating contributors to risk such as common-cause failures, human errors, and aggregate impact of multiple changes to ensure DID is not degraded; (5) convening an Independent Decision Panel (IDP) of qualified plant personnel (with expertise in operations, engineering, and risk) to review the proposed change and its evaluations, and to determine whether the change is acceptable; and (6) establishing a feedback and monitoring process to track the performance of equipment following any frequency adjustment (to confirm that the change has not led to adverse effects). Only if all the acceptance criteria in NEI 04-10 (which reflect the NRC's safety principles for risk-informed changes) are satisfied, may the licensee implement the surveillance frequency change without prior NRC approval. The NRC staff has reviewed the licensee's planned implementation of NEI 04-10 for Vogtle, 3 and 4, and finds it consistent with the approved guidelines. The methodology is expected to ensure that any individual surveillance interval changes are thoroughly evaluated and will prevent changes that could compromise equipment reliability or safety.

The NRC staff's review assessed the licensee's program relative to the risk-informed safety principles in RG 1.174 and 1.177 and confirmed that each of these principles is satisfied.

3.1.1 Key Principle 1: Evaluation of Compliance with Current Regulations

With the SFCP in place, all surveillance requirements remain in the TS and will continue to be performed as required by 10 CFR 50.36(c)(3). The relocated surveillance intervals are specified in TS 5.5.15, which requires that surveillances be performed at frequencies sufficient to ensure LCOs and safety limits are met. Thus, the TS still explicitly require all necessary tests and inspections, fulfilling 10 CFR 50.36. Only the numerical frequency details will reside in the SFCP. The NRC staff finds that this approach preserves compliance with current regulations, as the TS continue to contain the essential

surveillance requirements and the SFCP provides acceptable control of the interval adjustments. Other regulations remain fully applicable. Compliance with 10 CFR 50.55a code testing intervals and any future 10 CFR 50.69 adjustments must be complied with in the SFCP, the Maintenance Rule in 10 CFR 50.65, and Appendix B programs continue to ensure performance issues are detected and corrected. Therefore, Principle 1 is satisfied.

3.1.2 Key Principle 2: Evaluation of Defense-in-Depth

The risk-informed methodology for the SFCP includes qualitative evaluations to ensure that DID is maintained for each surveillance interval change. The NRC staff confirmed that the licensee will consider the seven factors in RG 1.174, Revision 3, including: (1) preserving a reasonable balance among layers of defense; (2) preserving adequate capability of design features without overreliance on programmatic activities as compensatory measures; (3) preserving system redundancy, independence, and diversity commensurate with the expected frequency and consequences of challenges to the system, including consideration of uncertainty; (4) preserving adequate defense against CCF's [common-cause failures]; (5) maintaining multiple fission product barriers; (6) preserving sufficient defense against human errors; and (7) continuing to meet the intent of the plant's design criteria. By design, changes made under the SFCP affect only the timing of surveillances and do not alter the design, function, or condition of plant equipment. Therefore, fundamental attributes such as redundancy, diversity, and physical barrier independence remain unchanged by these amendments. The NRC staff finds that the combination of the NEI 04-10 risk evaluation (considering core damage frequency (CDF)/large early release frequency (LERF) and human and hardware failure contributions) and the required qualitative checks on DID will ensure that no surveillance frequency change undermines the multiple layers of defense built into the AP1000 design. Therefore, Principle 2 is satisfied.

3.1.3 Key Principle 3: Evaluation of Safety Margins

The licensee's methodology and engineering evaluations of the proposed TS changes confirm that existing safety margins are not affected significantly by the relocation of surveillance frequencies. NEI 04-10 requires that any surveillance interval changes be assessed to ensure they do not conflict with approved Codes and standards or with assumptions and conclusions in the plant's safety analysis. In other words, if a surveillance frequency is linked to a design or analytical limit (such as a performance test assumed in the accident analysis or a Code-required inspection interval), the frequency change cannot be implemented unless it is demonstrated that the new interval will still meet the necessary acceptance criteria and safety margins. The NRC staff notes that Vogtle, Units 3 and 4, TS SR test methods and acceptance criteria are unchanged by this amendment – only the frequencies may be altered under the SFCP. Thus, SSCs will continue to be tested and maintained as per their design and licensing basis, and any changes in frequency must be shown not to degrade the SSC's ability to meet its intended safety function. Because the design, operation, and testing of plant SSCs remain the same, safety margins (such as design safety factors, accident analysis limits, and code compliance margins) are maintained under the proposed amendments. The NRC staff finds that Principle 3 is satisfied by the licensee's approach, which will ensure that surveillance frequency adjustments do not erode the safety margins established in the plant's design and analyses.

3.1.4 Key Principle 4: Change in Risk Consistent with the Commission's Safety Goal Policy Statement

The NRC staff reviewed the risk implications of the proposed surveillance frequency relocations and found them to be acceptable and consistent with the Commission's Safety Goal Policy Statement (51 FR 30028). Principle 4 in RG 1.174 and RG 1.177 provide guidance for licensees to evaluate the change in risk using a three-Tier approach. Tier 1 evaluates the impact on plant risk using change in

core damage frequency (Δ CDF), incremental conditional core damage probability (ICCDP), change in large early release probability (Δ LERF), and incremental conditional large early release probability (ICLERP). Tier 2 evaluates potentially high-risk configurations. Tier 3 establishes a risk-informed plant configuration control program (i.e., configuration risk management program (CRMP)). The NEI 04-10 satisfies the intent of these RGs for evaluating the change in risk and ensures that changes in risk are small by providing the methodology to support risk-informed TS for control of surveillance frequencies. If the risk increase from a proposed change exceeds these thresholds, the SFCP process requires additional evaluation, potential compensatory risk management measures, or disapproval of the change. The licensee's LAR included an analysis demonstrating that the overall impact of adopting the SFCP (and initially transferring the existing surveillance frequencies into the program) results in no immediate change to surveillance intervals and thus no immediate change in risk. Going forward, the SFCP provides the capability to revise intervals, but each such revision will be subject to these RGs and NEI 04-10 risk evaluations and limitations. The NRC staff also assessed the technical adequacy of the licensee's PRA models used to support the SFCP (see Section 3.1.4.1 below). Vogtle, Units 3 and 4, have modern PRA models covering internal events (IE), internal flooding (IF), internal fires, and seismic hazards, which have been peer-reviewed against the ASME/ANS PRA Standard and meet the quality benchmarks of RG 1.200 (Capability Category II (CC-II) for most model aspects). The NRC staff finds that the licensee's PRA is sufficient to reliably compute changes in risk for surveillance frequency adjustments. For hazard scenarios not fully represented in the PRA (such as high winds, external floods, or certain shutdown conditions), the licensee's process includes qualitative or bounding analyses to ensure risk impacts from those areas are properly considered. Based on the above, the NRC staff concludes that any changes made under the SFCP will only result in small increases in risk, consistent with the NRC's safety goal policy and the acceptance guidelines of RG 1.174/1.177. Therefore, Principle 4 is satisfied.

3.1.4.1 Technical Acceptability of PRAs

The licensee used RG 1.200, Revision 2 and Revision 3, to address the plant PRA technical acceptability for this application. RG 1.200, Revision 2 and 3, provide regulatory guidance for assessing the technical acceptability of a PRA and endorses (with clarifications and qualifications) the use of the following:

1. ASME/American Nuclear Society (ANS) RA-Sa-2009, "Addenda to ASME RA-S-2008 Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications," February 2, 2009 (hereafter referred to as the ASME/ANS PRA Standard);
2. NEI 00-02, Revision 1 and Revision A3, "Probabilistic Risk Assessment (PRA) Peer Review Process Guidance" (ML061510619 and ML003728023); and
3. NEI 05-04, Revision 2, "Process for Performing Internal Events PRA Peer Reviews Using the ASME/ANS PRA Standard," (ML083430462).

The licensee has performed an assessment of the PRA models used to support the SFCP against the guidance provided in RG 1.200, Revision 2 and 3, to assure that the PRA models, using plant specific data and models, are capable of determining the change in risk due to changes to surveillance frequencies of SSCs. NEI 04-10 states that CC-II of the ASME/ANS PRA Standard should be met, and any identified deficiencies to the CC-II Supporting Requirements of the ASME/ANS PRA Standard are assessed further to determine any impacts to proposed decreases to surveillance frequencies, including the use of sensitivity studies, as appropriate. As described in the NRC staff approval of NEI 04-10, this level of PRA acceptability is sufficient to support the

evaluation of changes proposed to surveillance frequencies within the SFCP and is consistent with Regulatory Position 2.3.1, "Acceptability of the Probabilistic Risk Assessment," of RG 1.177, Revision 2.

3.1.4.2 Scope of the PRA

The proposed TS 5.5.15 requires changes to surveillance frequencies listed within the SFCP to be made using NEI 04-10, Revision 1, which requires the licensee to determine the potential impact of each surveillance frequency change on CDF and LERF from IE, internal fires, seismic, other external events, and shutdown conditions. In cases where a PRA of sufficient scope or quantitative risk models are unavailable, the licensee may use bounding analyses or other conservative quantitative evaluations. A qualitative screening analysis may be used when the surveillance frequency impact on plant risk is shown to be insignificant.

Vogtle, Units 3 and 4, has full-power IE, IF, fire, and seismic PRA models. These models received peer reviews as discussed in this section of the SE. In accordance with NEI 04-10, Revision 1, the licensee will use these models to perform quantitative evaluations to support the development of changes to surveillance frequencies in the SFCP. The NRC staff finds that the use of these models is acceptable because the NRC-approved methodology in NEI 04-10, Revision 1, allows for more refined analysis to be performed to support changes to surveillance frequencies in the SFCP.

Vogtle, Units 3 and 4, does not have PRA models for high winds, external flooding events, and other external hazards. In Section 2.6.1, "Other External Events," of LAR Attachment 2, the licensee stated that the at-power External Hazards PRA Notebook concluded that all identified external hazards (excluding IF, Seismic, and Internal Fire) were individually screened out with CDFs between 1E-09 per year to approximately 1E-14 per year. The licensee further stated that qualitative and quantitative screening of external hazards was performed in accordance with the requirements of the ASME/ANS PRA Standard for this external events analysis and that the full-power, integrated PRA model used to support the SFCP does not include explicit consideration of external events such as severe winds, and external flooding. The NRC staff notes that in the absence of quantifiable PRA models for all external hazards, NEI 04-10 allows STI change evaluations to be performed with review of qualitative impacts.

In Section 2.6.2, "Shutdown Risk Considerations," of LAR Attachment 2, the licensee stated that it does not maintain a shutdown PRA model for Vogtle, Units 3 and 4, and that consistent with the NEI 04-10, Revision 1 guidance, qualitative information must be developed that supports the acceptability of the STI change with respect to the shutdown risk or it must be screened as not having an impact on the CDF and LERF metrics. The licensee further stated that shutdown risk is evaluated using a Shutdown DID model developed to support implementation of Nuclear Management and Resources Council, Inc., "NUMARC 91-06, Guidelines for Industry Actions to Assess Shutdown Management," December 1991, (ML14365A203), and that plant procedures establish shutdown DID risk assessment to support the requirements of Article (a)(4) of 10 CFR 50.65. The licensee further stated that this model defines key safety functions applicable to low power and shutdown conditions and associated status tree decision criteria for the identified plant operating states.

The NRC staff notes that in accordance with NEI 04-10, Revision 1, the licensee can perform an initial qualitative screening analysis, and, if the qualitative information is insufficient to provide confidence that the net impact of the STI change would be negligible, a bounding analysis will be performed. The licensee stated that its approach will use a qualitative process, and bounding analyses where appropriate, for assessing the risk impact of extending the surveillance frequency on SSCs for non-PRA-modeled hazards and shutdown events.

The NRC staff finds that high winds and tornadoes, external flooding, and other external hazards are considered and do not significantly impact this application. This is because of (1) the plant's robust design, procedures, and enhancements, and (2) the licensee's approach for considering any impact is consistent with the guidance in NEI 04-10, Revision 1, and the associated NRC staff SE. Further, the NRC staff finds that in cases where either a PRA of sufficient scope or a quantitative risk model is unavailable, the licensee will use bounding analyses, or other conservative quantitative evaluations consistent with NEI 04-10, Revision 1.

The proposed TS 5.5.15 will require the licensee to comply with the NRC-approved methodology in NEI 04-10, Revision 1. Therefore, the NRC staff concludes that the licensee's evaluation methodology will ensure the risk contribution of each surveillance frequency change is properly identified for evaluation and is consistent with Regulatory Position 2.3.2, "Scope of the Probabilistic Risk Assessment for Technical Specification Change Evaluations," of RG 1.177, Revision 2.

Internal Events and Internal Flooding PRA

The licensee's PRA model supporting the application is the 2025 PRA model of record as documented in its calculations and related PRA supporting documents.

The At-Power Internal Events PRA (IEPRA) was initially peer reviewed against Part 2 of ASME/ANS RASa-2009 in 2013. Since the 2013 peer review, the Vogtle, Units 3 and 4, plant At-Power IEPRA has been updated to address several peer review Findings & Observations (F&Os), to the extent possible for an early operational plant. Follow on work addressed further model improvement focused on as-built, as-operated plant information. Subsequently, the Vogtle, Units 3 and 4, IEPRA Model was subject to a closure and focused scope industry peer review conducted by the Pressurized Water Reactor Owners' Group (PWROG) following a self-assessment in 2025. The peer review and subsequent independent assessments demonstrated that the Vogtle, 3 and 4, IEPRA substantially met the ASME/ANS PRA standard RA-Sa-2009.

The Vogtle, Units 3 and 4, PRA IE Model was approved and incorporated changes, as applicable, to support the resolutions of the 2025 peer review findings. The findings from 2025 were closed by an independent assessment conducted, with several open findings remaining either out of scope (not applicable) or not fully resolved to meet Category II or better. The findings that remain open are:

IE-A3-01: Several SRs were not achievable in the IE element because insufficient plant-specific data are available for update.

The licensee stated that generic initiating event data includes operational data from Vogtle, Units 1 & 2, and that an update to include plant specific operating experience is not expected to significantly alter the risk profile. The licensee further stated that without an update, results are potentially non-conservative, but STI evaluations should not be impacted.

DA-C2-01: Site specific guidance establishes methodologies for performing a data update. Due to the early operational state of the plant, sufficient operating experience is not yet available to support.

The licensee stated that generic availability and reliability data is utilized and that an

updated to include plant specific operating experience is not expected to significantly alter the risk profile. The licensee further stated that without an update, results are potentially non-conservative, but STI evaluations should not be impacted.

QU-D4-01: No similar plants exist for comparison.
The licensee states that review of PRAs from similar plants, if available, could reveal information that could alter the risk profile but that such information is not expected to impact STI evaluations.

LE-E2-01: Model results show that LERF is dominated by the two phenomena of 1) hydrogen Deflagration-to-Detonation Transition, and 2) diffusion flame. This SR is characterized as CC I because of the conservative nature of the assumptions leading to early containment failure.

The licensee stated that this is a conservative approach that impacts LERF but that STI evaluations should not be impacted.

The NRC staff reviewed the open F&Os and the licensee's impact statements and determined that the open F&Os will have no impact on STI evaluations.

The licensee stated that its current internal flood (IF) model was integrated into the PRA model of record to quantify flood-induced scenarios to determine their importance to plant risk and that as part of quantification, the effects of flood-induced failures were combined with the effects of other types of equipment failures or unavailability that includes the effects caused by flooding and failures coincident with the flooding due to maintenance unavailability, independent equipment faults and other credible causes. The licensee further stated that direct and indirect effects of the flood were included in the quantification and that they consider the Vogtle, Units 3 and 4, IF model as adequate to support this application. The licensee stated that a Peer Review was conducted in 2013 evaluating technical elements against CC-II of ASME RA-Sa-2009 and that the peer review reported results can be used to reliably evaluate the technical adequacy of the PRA against PRA standard and regulatory guidance (RG 1.200, Rev. 3).

The licensee stated that the Vogtle, Units 3 and 4, IF model was approved and incorporated changes, as applicable, to support the resolutions of the 2025 peer review findings and that the findings from 2025 were closed by an independent assessment, and that no findings remain open. The licensee stated that the closure assessment was conducted in accordance with Appendix E to NEI 17-07, "Performance of PRA Peer Reviews Using the ASME/ANS PRA Standard," Revision 2, August 2019 (ML19231A182).

Fire PRA

The licensee stated that its fire PRA (FPRA) model is built to integrate with the IEPR model using FPRA logic models (plant response model for CDF and LERF) and database inputs comprising identified fire scenarios, frequencies, and target sets. The licensee further stated that CDF and LERF results include contribution from all credible fire sources and unscreened fire compartments within the FPRA global plant analysis boundary. The licensee further stated that multi-unit impacts for the Vogtle, Units 3 and 4, FPRA are limited.

The licensee stated that it considers the Vogtle, Units 3 and 4, FPRA as adequate to support the requested application and that a Peer Review was conducted in 2017 evaluating technical elements against CC-II of ASME RA-Sa-2009 and that the peer review reported results can be

used to reliably evaluate the technical adequacy of the PRA against the PRA standard and RG 1.200, Rev. 3.

The licensee stated that the At-Power FPRA was initially peer reviewed against Part 4 of ASME/ANS RA-Sa-2009 in 2017 and that since the 2017 peer review, the Vogtle, 3 and 4, plant At-Power FPRA has been updated to address several peer review F&Os, to the extent possible for an early operational plant. The licensee further stated that follow on work addressed further model improvement focused on as-built, as-operated plant information.

The licensee stated that, the Vogtle, Units 3 and 4, FPRA Model was subject to a full-scope industry peer review in 2020 and that following further F&O closure efforts, model maintenance, and self-assessment in September 2025, the Vogtle, Units 3 and 4, FPRA Model was subject to a focused-scope industry peer review conducted by the PWROG which included a closure review to address previous findings. The licensee stated that the peer review and subsequent independent assessments demonstrated that Vogtle, Units 3 and 4, FPRA substantially met the ASME/ANS PRA standard RA-Sa2009 at CC-II or better.

The licensee stated that the Vogtle, Units 3 and 4, FPRA Model was approved and incorporated changes, as applicable, to support the resolutions of peer review findings and that the findings were closed by an independent assessment conducted in 2025. The licensee stated that there is one finding that remains open and that the closure assessment was conducted in accordance with Appendix E to NEI 17-07. The finding that remains open is:

06-001: Corrections are indicated for an event tree that performs calculations for the non-suppression probability to ensure consistency with data sources.
The licensee stated that the values affected are occupancy and maintenance factors, reliability values supporting fire suppression systems, and a typographical error, and that the associated Fire Scenario Selection notebook attachment was updated to address discrepancies identified and that there is no impact for the SFCP application.

The NRC staff reviewed the open F&O and the licensee's impact statement and determined that the open F&O will have no impact on STI evaluations.

Seismic PRA

The licensee stated that its Seismic PRA (SPRA) model uses the IEPR model as the starting point to develop a SPRA systems model, adding screened in SSCs while maintaining consistency with the IE systems model regarding cause-and-effect relationships of the failures and that the resulting plant response analysis and quantification encompasses the major SPRA technical elements for hazard treatment, fragility treatment and model logic. The licensee further stated that these elements from the ASME standard were included in the scope of self-assessments and peer reviews to establish technical adequacy of methodologies and their application.

The licensee stated that it considers the Vogtle, Units 3 and 4, SPRA as adequate to support the requested application and that a peer review was conducted in 2017 evaluating technical elements against CC-II of ASME RA-Sa-2009, and that the peer review reported results can be used to reliably evaluate the technical adequacy of the PRA against PRA standard and RG 1.200, Rev. 3.

The licensee stated that the At-Power SPRA was initially peer reviewed against Part 4 of ASME/ANS RASa-2009 in 2017 and that since the 2017 peer review, follow on work focused on resolution of peer

review F&Os and incorporation of as-built, as-operated plant information followed by an independent assessment performed to close SPRA findings and reassess supporting requirements not met at CC-II or better. The licensee stated that following further F&O closure efforts, model maintenance, and self-assessment in September 2025, the Vogtle, Units 3 and 4, SPRA was subject to a focused-scope industry peer review conducted by the PWROG which included a closure review to address previous findings. The licensee further stated that the peer review and subsequent independent assessments demonstrated that the Vogtle, Units 3 and 4, PRA substantially met the ASME/ANS PRA standard RA-Sa-2009 at CC-II or better.

The licensee stated that the Vogtle, Units 3 and 4, SPRA Model was approved and incorporated changes, as applicable, to support the resolutions of the 2025 peer review findings and that the findings from 2025 were closed by an independent assessment conducted in 2025, with no open findings remaining and that the closure assessment was conducted in accordance with Appendix E to NEI 17-07.

Other External Hazards

The licensee stated that the At-Power External Hazards PRA Notebook concluded that all identified external hazards (excluding IF, Seismic, and Internal Fire) were individually screened out with CDFs between 1E-09 per year to approximately 1E-14 per year. The licensee further stated that qualitative and quantitative screening of external hazards was performed in accordance with the requirements of the ASME/ANS PRA Standard (ASME/ANS RA-Sa-2009) for this external events analysis and that the full-power, integrated PRA model used to support the SFCP does not include explicit consideration of external events such as severe winds, and external flooding. The licensee stated that in the absence of quantifiable PRA models for all external hazards, NEI 04-10 allows STI change evaluations to be performed with review of qualitative impacts.

In LAR Attachment 2, Section 3.8, the licensee provided information that demonstrated that the Vogtle, Units 3 and 4, other external events screening meets expectations for PRA scope and technical adequacy as presented in NRC RG 1.200, Revision 3. The licensee stated that conservative analysis has been demonstrated through progressive screening and application of qualitative and quantitative criteria, with results documented in its analysis.

The licensee stated that the ASME/ANS PRA standard contains a total of 17 numbered SRs for High Level Requirements for Other External Hazards: Requirements for Screening and Conservative Analysis and that during development and self-assessment, 2 additional SRs supporting high winds (WHA-1 and WHA-3) were determined to meet the ASME standard with respect to tornado analysis and frequency of high straight winds. The licensee stated that the hazards were screened via this analysis, except for two hazards, IF and Seismic, documented as "Not Screenable," and addressed separately from this analysis via a full scope at-power PRA.

The licensee stated that the At-Power External Events analysis was peer reviewed against Part 6 of ASME/ANS RA-Sa2009 in 2016 and that since the 2016 peer review, the Vogtle, 3 and 4, At-Power external events PRA has been updated to address peer review F&Os. The licensee further stated that other significant external events with potential impact on risk are evaluated in accordance with the PRA standard to support the application and that the Vogtle, 3 and 4, Other External Hazard Screening analysis was subject to a focused-scope industry peer review conducted by the PWROG following self-assessment in 2025 and that the peer review and subsequent independent assessments demonstrated that the Vogtle, 3 and 4, Other External Hazard Screening substantially met the ASME/ANS PRA standard RA-Sa-2009 at CC-II or better.

The licensee stated that the Vogtle, 3 and 4, Other External Hazard Screening was approved and incorporated changes, as applicable, to support the resolutions of the 2025 peer review findings and that the findings from 2025 were closed by an independent assessment with no open findings remaining and that the closure assessment was conducted in accordance with Appendix E to NEI 17-07.

Conclusion

Based on the above, the NRC staff concludes that the licensee's IEPRAs, including IF, FPRA and SPRA are technically acceptable to support the evaluation of changes proposed to surveillance frequencies within the SFCP using the process in NEI 04-10, Revision 1, and is consistent with Regulatory Position 2.3.1 of RG 1.177, Revision 2.

3.1.4.3 Application of the PRA Models

Consistent with NEI 04-10, Revision 1, upon implementation of the SFCP, the licensee will determine whether the SSCs affected by a proposed change to a surveillance frequency are modeled in the PRA. Where the SSC is directly or implicitly modeled, a quantitative evaluation of the risk impact may be carried out. The methodology adjusts the failure probability of the impacted SSCs, including any impacted common cause failure modes, based on the proposed change to the surveillance frequency. Where the SSC is not modeled in the PRA, bounding analyses are performed to characterize the impact of the proposed change to surveillance frequency. Potential impacts on the risk analyses due to screening criteria and truncation levels are addressed by the requirements for PRA technical adequacy consistent with the guidance provided in RG 1.200, Revision 3, and by sensitivity studies identified in NEI 04-10, Revision 1.

The NRC staff finds that through the application of NEI 04-10, Revision 1, the licensee's PRA modeling is sufficient to ensure an acceptable evaluation of risk for the proposed changes in surveillance frequency and is consistent with Regulatory Position 2.3.3, "Probabilistic Risk Assessment Modeling and Level of Detail," of RG 1.177, Revision 2.

3.1.4.4 PRA Assumptions and Sources of Uncertainty

The licensee stated that its current Vogtle, Units 3 and 4, PRA model of record includes documentation of a wide range of generic and plant specific contributors to modeling uncertainties and that these contributors were examined to aid in the decision-making process of potential applications. The licensee further stated that with respect to model completeness, evaluation of proposed STI changes will reference bounding analyses or update the model to incorporate the missing scope elements, as appropriate and that lack of detail in the model generally tends toward a conservative bias which may be removed (by adding detail) if so, required by a particular application.

The licensee stated that the TS Initiative 5b process is a risk-informed process with the PRA model results providing one of the inputs to determine if an STI change is acceptable and that the NEI 04-10 methodology recognizes that a key area of uncertainty for this application is the failure rate utilized in the determination of the STI extension impact. The licensee further stated that, therefore, the methodology requires the performance of selected sensitivity studies on the standby failure rate of the component(s) of interest for the STI assessment and that other relevant key assumptions will depend on the SSCs being considered for an STI revision. The licensee further stated that for each proposed STI change, PRA assumptions will be reviewed and documented to identify potential impacts.

3.1.4.5 PRA Acceptability Conclusions

The licensee (1) demonstrated the technical acceptability of the PRAs for this application following the guidance in RG 1.200, Revision 3, (2) established a periodic update and review process to update the PRA model to incorporate changes made to the plant consistent with the SFCP, (3) assessed key assumptions and sources of uncertainty for impact on the application, and (4) will calculate extended STIs using NRC-accepted PRA methods consistent with NEI 04-10, Revision 1. Additionally, the licensee's approach for considering the impact of non-seismic external hazards and other hazards for the extension of STIs is acceptable and consistent with the guidance in NEI 04-10, Revision 1.

Based on the above, the NRC staff finds that the licensee's IEPRAs, which include IF, FPRA, and SPRA are acceptable for use in the SFCP consistent with NEI 04-10.

3.1.4.6 Acceptance Guidelines

The licensee proposed TS 5.5.15 would require changes to surveillance frequencies listed within the SFCP to be made using NEI 04-10, Revision 1. The NEI 04-10, Revision 1, methodology requires a quantitative evaluation of the change in total risk (including contributions from internal and external events) in terms of CDF and LERF for both the individual risk impact of a proposed surveillance frequency change and the cumulative impact from all individual changes to surveillance frequencies. Each individual change to a surveillance frequency must show a risk-increase below $1\text{E-}6$ per year for ΔCDF and below $1\text{E-}7$ per year for ΔLERF . These changes to CDF and LERF are consistent with the acceptance guidelines of RG 1.174, Revision 3, for very small changes in risk. If the RG 1.174, Revision 3, acceptance guidelines are not met, then the surveillance frequencies must either be revised to be consistent with RG 1.174, Revision 3, or the process terminates without permitting the proposed changes.

If quantitative results are unavailable for comparison with the acceptance guidelines, appropriate qualitative analyses are required to demonstrate that the associated risk impact of a proposed change to a surveillance frequency is negligible or insignificant. Otherwise, bounding quantitative analyses are required that demonstrate the risk impact is at least one order of magnitude lower than the RG 1.174, Revision 3, acceptance guidelines for very small changes in risk. In addition to assessing each individual SSC surveillance frequency change, the cumulative impact of all changes must result in an increase in CDF and LERF of less than $1\text{E-}5$ per year and $1\text{E-}6$ per year, respectively. The total CDF and total LERF must be reasonably shown to be less than $1\text{E-}4$ per year and $1\text{E-}5$ per year, respectively. These values are consistent with the risk acceptance guidelines of RG 1.174, Revision 3, as referenced by RG 1.177, Revision 2, for changes to surveillance frequencies.

The quantitative risk acceptance guidelines of RG 1.174, Revision 3, are supplemented by qualitative information in the licensee's submittals to evaluate changes to surveillance frequencies, including industry and plant-specific operating experience, vendor recommendations, industry standards, results of sensitivity studies, and SSC performance data and test history. The final acceptability of the proposed surveillance frequencies change is based on all these considerations and not solely on the PRA results. Post-implementation performance monitoring and feedback are also required to ensure continued reliability of the components. The NRC-approved NEI 04-10, Revision 1, provides acceptable methods for evaluating the risk increase associated with proposed changes to surveillance frequencies consistent with Regulatory Position 2.4, "Acceptance Guidelines for Technical Specification Changes," of RG 1.177, Revision 2. Therefore, the NRC staff concludes that the licensee's proposed methodology satisfies key safety Principle 4 of RG 1.174, Revision 3, by assuring that any increase in risk is small, consistent with the intent of the

Commission's Safety Goal Policy Statement.

3.1.5 Key Principle 5: Performance Measurement Strategies – Implementation and Monitoring Program

Key safety Principle 5 for risk-informed TS changes is that the impact of the change must be monitored to ensure that assumptions and analysis results remain valid over time. The licensee's proposed SFCP includes a requirement for ongoing performance monitoring of surveillance frequency changes (as delineated in NEI 04-10, Step 11 and 12) to verify that the reliability of affected components is not impacted adversely. Additionally, existing plant programs provide DID for performance monitoring: under 10 CFR 50.65 (i.e., the Maintenance Rule), the licensee tracks the performance and reliability of safety-related (and certain non-safety) SSCs against established goals, and under Appendix B to 10 CFR Part 50, Criterion XVI, the licensee is required to implement a corrective action program to promptly identify and correct conditions adverse to quality. Together, these requirements ensure that if any degradation in equipment performance or trend of increasing failures is observed after lengthening a surveillance interval, the condition will be evaluated and appropriate corrective actions (such as restoring the prior frequency or other compensatory measures) will be taken. The NRC staff finds that the SFCP's built-in feedback mechanism, combined with the Maintenance Rule monitoring program and the corrective action process, satisfy Principle 5 by providing a means to confirm the effectiveness of surveillance frequency changes and detect any negative impacts on reliability.

3.1.6 Technical Conclusion

Based on the above (Principles 1–5 and associated considerations), the NRC staff concludes that the establishment of the Surveillance Frequency Control Program at Vogtle, Units 3 and 4, (adoption of TSTF-425) is acceptable. The licensee's relocation of surveillance intervals to the SFCP, under the conditions and requirements of NEI 04-10 and the constraints imposed by regulatory requirements, meets all applicable regulatory criteria and maintains the safety and operability of plant equipment. The risk-informed methodology has been endorsed by the NRC and ensures that any surveillance interval changes will be thoroughly vetted for safety impacts before implementation. The staff finds that the licensee's approach satisfies the five key safety principles of RG 1.174 and 1.177 for risk-informed TS changes, and is consistent with the precedent of numerous operating plants that have successfully implemented SFCPs to optimize their surveillance testing intervals without compromising safety.

3.2 Changes to Instrumentation Testing Definitions – Adoption of TSTF-563

TSTF-563 involves revising the TS definitions for instrumentation channel testing to align with the SFCP. The affected definitions (in TS Section 1.1) are: CHANNEL CALIBRATION, CHANNEL OPERATIONAL TEST (COT), and TRIP ACTUATION DEVICE OPERATIONAL TEST (TADOT). The changes add new language to each definition, stating in substance that each step of a channel test or calibration may be performed at the frequency specified in the SFCP for the devices or components in that step. With an SFCP in place, this allows the licensee to tailor the surveillance frequency for individual portions of an instrument channel, rather than forcing all components of the channel to be tested at one fixed interval. Under current TS, an entire channel's surveillance frequency is dictated by the component that has the shortest required interval (often the least stable or most safety-significant device in the channel). This "one-size-fits-all" approach can lead to unnecessary testing of more stable components at an overly conservative frequency, which in turn can create additional equipment unavailability and personnel exposure without a commensurate safety benefit. With the TS definition changes, Vogtle, Units 3 and 4, will be able to, for example, test sensing elements of a protection channel on one schedule and test logic or indication components on a different schedule, if justified, and yet still satisfy the overall TS surveillance requirement for the channel.

The staff notes that these definition changes do not alter what the surveillance entails or what constitutes an acceptable test; they only provide flexibility in scheduling. Moreover, since any adjusted frequencies must be established via the SFCP, the licensee must perform a full risk-informed evaluation (per NEI 04-10) of the interval for each device or test step that it proposes to change. Plants without an SFCP are not permitted to adopt TSTF-563 because the flexibility it offers is predicated on having the NEI 04-10 program in place. In the case of Vogtle, 3 and 4, the SFCP is being established by this same amendment, so the prerequisites for TSTF-563 adoption are met. The NRC staff finds the proposed definition revisions acceptable. These changes will eliminate overly restrictive test scheduling requirements that can lead to inefficiencies, while ensuring that instrumentation channels remain fully tested and capable of performing their safety functions. The NRC staff's conclusion is supported by the prior generic approval of TSTF-563, which found that such definition changes, when tied to the implementation of an SFCP, did not adversely affect safety and in fact could improve plant availability and reduce occupational radiation exposure to workers by avoiding unnecessary testing.

3.3 Expansion of SFCP Scope and Relocation of Additional Surveillance Frequencies – Adoption of TSTF-596

TSTF-596 broadens the scope of the Surveillance Frequency Control Program and adds related clarifications. The key elements of TSTF-596 can be categorized as follows:

Inclusion of TS Program Surveillance Intervals: The SFCP (TS 5.5.15) is expanded to encompass certain surveillance intervals that are specified within required programs in the Administrative Controls section (TS 5.5). As described in Section 2.0, the licensee has modified the Ventilation Filter Testing Program (TS 5.5.13) and Control Room Envelope Habitability Program (TS 5.5.12) to remove fixed testing frequencies and instead reference the SFCP for the frequency of those tests. For example, TS 5.5.13 now prescribes performance of the main control room charcoal filter tests “in accordance with the Surveillance Frequency Control Program” rather than “once per 18 months.”

With this change, the licensee can consider risk insights and plant-specific data (such as filter degradation trends or effectiveness of the filtration system) in optimizing the test frequency, subject to the requirements of NEI 04-10. The NRC staff notes that TSTF-596 generically identified several programs (including diesel fuel oil testing and primary coolant source outside containment monitoring) whose frequencies could be similarly relocated; however, those particular programs are not part of the AP1000 standard TS and thus do not exist in Vogtle, 3 and 4's TS. Therefore, no changes were needed for diesel fuel oil or primary coolant source monitoring. The staff finds that the relocation of the VES and CRE habitability program test intervals to the SFCP is acceptable. These testing requirements will remain in TS (as part of the program descriptions) and will continue to be performed to satisfy their respective program commitments (e.g., ensuring ventilation filter efficiency and control room integrity). Managing the frequency under the SFCP simply means that adjustments can be made with proper justification and confirmation through NRC oversight (via the SFCP controls in TS). This is consistent with the risk-informed approach of TSTF-596 and does not diminish the importance or validity of the tests.

IST Frequencies and TS References: TSTF-596 also permits the relocation of certain surveillance frequencies that had been associated with the Inservice Testing Program (which implements 10 CFR 50.55a(f) requirements). In the Vogtle, Units 3 and 4, TS, several SRs referred to performing tests “in accordance with the Inservice Testing Program.” This amendment deletes the TS 5.5.3 “Inservice Testing Program” administrative section (which is no longer needed) and revises the relevant SRs to either refer to the SFCP or to explicitly specify that testing is done per 10 CFR 50.55a(f).

As an example, SR 3.5.6.8 (verification of actuation capability for certain squib valves in the In-Containment Refueling Water Storage Tank) currently references the IST Program; the amendment will replace this with a statement that testing is done in accordance with 10 CFR 50.55a(f) (i.e., per the ASME OM Code requirements) at a Frequency set by the SFCP. In practice, this means the nominal test interval (quarterly, etc.) could be adjusted in the future under the SFCP, but only within the confines of the ASME Code (which stipulates the minimum testing frequency and allows some grace period via Code Cases).

The SFCP's program description notes explicitly that changes to Code-required test frequencies must meet 10 CFR 50.55a constraints, and standard TS provisions about surveillance interval extension (SR 3.0.2) are only permitted for Code tests to the extent that the Code or regulation allows. The NRC staff finds that these changes appropriately integrate IST surveillance intervals into the SFCP without reducing compliance with 10 CFR 50.55a. The IST-required tests will still occur as mandated, and any adjustments in frequency must remain within Code allowances. Removing the separate TS reference to an "Inservice Testing Program" is an administrative improvement that eliminates redundancy and potential confusion, since those surveillance frequencies are now controlled by TS 5.5.15.

Other Clarifications (SR 3.0.2 / 3.0.3 Applicability): Finally, as part of TSTF-596, two clarifying statements are included to govern the use of SR 3.0.2 (which allows a short extension of surveillance intervals) and SR 3.0.3 (which addresses missed surveillances) for SFCP-managed intervals. The licensee's TS 5.5.15 includes the TSTF-596 recommended statements which specify that SR 3.0.2 is applicable to Code-required (10 CFR 50.55a) surveillances only to the extent that such extensions are permitted by the Code or regulation, and SR 3.0.3 is applicable to SFCP TS 5.5.15 test frequencies only when invoked in the TS 5.5.15 specifications. This ensures that the standard flexibility in TS does not inadvertently allow, for instance, extending a pump's test frequency beyond what 10 CFR 50.55a or the ASME Code would permit, or treating a missed Code-required surveillance in a way that conflicts with regulatory requirements. The NRC staff has reviewed these additions and finds them acceptable, as they reinforce adherence to existing regulatory limits and maintain consistency between TS rules and the SFCP framework.

3.4 Plant-Specific Variations and Editorial Changes

The licensee's LAR describes several minor variations from the exact wording of TSTF-425, TSTF-563, and TSTF-596, as well as some editorial clean-up items, to appropriately reflect the Vogtle 3 and 4 (AP1000) TS and current plant status. The NRC staff has evaluated these differences and finds them acceptable, as summarized below:

- **TS Numbering and Terminology Differences:** The Standard Technical Specifications (STS) on which the TSTF travelers were based use slightly different section numbers and terms than the AP1000 plant's TS. For example, the SFCP is designated as TS 5.5.19 in the current Westinghouse STS (NUREG-1431) and is not in TS 5.5, "Programs and Manuals," for AP1000 TS (NUREG-2194), whereas Vogtle, Units 3 and 4 TS, the SFCP is proposed to be TS 5.5.15. Similarly, the Vogtle TS include programs like the Main Control Room Emergency Habitability System testing in TS 5.5.13, which corresponds to the "Ventilation Filter Testing Program" in STS, and other administrative programs are numbered differently. The licensee adjusted the traveler's generic mark-ups to use the correct AP1000 section numbers and plant-specific terminology. The staff finds these editorial changes acceptable because they do not alter the intent or effect of the proposed TS revisions; they merely ensure that each change is correctly applied to the corresponding provisions in Vogtle's TS.

- Retention of “STAGGERED TEST BASIS” Definition: TSTF-425’s model changes included deletion of the definition of STAGGERED TEST BASIS from TS Section 1.1, on the assumption that the term would no longer be needed. However, Vogtle’s AP1000 TS still contain one usage of “STAGGERED TEST BASIS” in a Required Action of the Diverse Actuation System (DAS) testing specification (TS 3.3.19). Because the term remains in use in that context, the licensee opted not to delete the definition in order to avoid an undefined term in TS. This is a minor deviation from the TSTF-425 model implementation. The NRC staff finds this acceptable, as it is solely an editorial decision that does not affect the substance of the SFCP changes. The “Staggered Test Basis” definition can be removed in a future amendment when the TS no longer needs the term (for instance, if the DAS testing requirements are relocated to a different section or revised). For now, retaining the definition has no adverse effect on safety – it merely preserves clarity in the TS.
- Removal of Obsolete One-Time Surveillance Requirements: The licensee identified several TS surveillance specifications that contained one-time testing requirements which have been fulfilled and are no longer applicable to ongoing plant operation. In TS SR 3.6.6.6 (Passive Containment Cooling System Operability Test), the frequency was previously stated as “At first refueling,” since this surveillance was only required to be performed once during initial plant startup. Both Vogtle, Unit 3 and Unit 4, have completed their first refueling outages, so this condition is satisfied and no longer relevant. The amendment deletes the phrase “At first refueling” from SR 3.6.6.6, effectively turning it into a standard periodic test (which is then made part of the SFCP). Likewise, in TS 5.5.13, “Ventilation Filter Testing Program,” the licensee is removing the “initial” testing requirements for the main control room emergency habitability system’s HEPA filters and charcoal adsorbers, as well as deleting a one-time exception that applied only to Vogtle, Unit 3, during its first operating cycle. These testing obligations were tied to initial operation (e.g., initial in-place filter testing and a shorter first-cycle test interval), and they have been completed; thus, the TS no longer need to include these special provisions. The NRC staff finds these removals acceptable because they constitute administrative changes and clean-up of expired requirements and have no effect on current surveillance testing. The deletion clarifies the TS by eliminating potential confusion. The NRC staff verified that all such one-time tests were satisfactorily completed and that ongoing surveillance requirements (with their relocated frequencies, as applicable) will continue to ensure safety.

3.5 Technical Specification Evaluation

The NRC’s approval of risk-informed surveillance frequency control program (and the related changes made in TSTF-563 and TSTF-596) is predicated on continued compliance with 10 CFR 50.36 – specifically, the surveillance test provisions themselves remain in the TS, and only the flexibility to change their frequency is relocated to a licensee program. In the proposed Vogtle, Units 3 and 4, amendments, all affected SRs will continue to be listed in the TS, but with their Frequency controlled under TS 5.5.15 (the SFCP). The new TS 5.5.15 mandates that each routine periodic surveillance frequency be reviewed and adjusted (if at all) in accordance with NEI 04-10, Revision 1 (the NRC-approved methodology for risk-informed surveillance interval changes) and in a manner such that applicable LCOs and safety limits are still satisfied. In other words, the relocation of frequencies does not remove any testing requirement from the TS. It simply transfers the numerical periodicities to a licensee-controlled program that is subject to NRC oversight. The NRC staff finds that this approach preserves the intent of 10 CFR 50.36(c)(3): the TS will continue to contain the necessary SRs for equipment important to safety, and the SFCP (as an Administrative Control) will ensure that those surveillance intervals remain effective and appropriate to maintain plant safety. This approach is analogous to other TS specifications where the frequency of a test or inspection is not stated explicitly in the TS, but the TS refers to a program or regulation that controls the frequency (for example,

containment leak rate testing frequencies are managed under the 10 CFR Part 50, Appendix J testing program).

The NRC staff reviewed the proposed TS 5.5.15 and determined that it provides appropriate administrative control over surveillance frequencies. In particular, TS 5.5.15 requires the use of an NRC-approved methodology (i.e., NEI 04-10, 10 CFR 50.55a(f) or 10 CFR 50.69(d)(2)) to make changes, and it specifies that records of SFCP activities (including evaluations and results) must be maintained. These elements satisfy the intent of 10 CFR 50.36(c)(5) because they impose requirements on the licensee's management and control of an important program affecting plant safety (i.e., the scheduling of surveillances).

The NRC staff have reviewed the proposed changes related to TSTF-596. The proposed amendments revise those SRs to either reference the SFCP or directly reference 10 CFR 50.55a, as described in Sections 2.0 and 4.3 above, thereby relocating their frequencies to the SFCP. The SFCP program description in TS 5.5.15 ensures that any surveillance frequencies derived from 10 CFR 50.55a requirements are controlled such that changes to those frequencies cannot conflict with the ASME Code or 10 CFR 50.55a limits. The NRC staff finds that the amended TS continue to require compliance with 10 CFR 50.55a for IST activities. As such, the relocation of IST-related intervals to the SFCP does not alter the obligation to meet applicable Code and regulatory testing frequency requirements. The NRC staff concludes that 10 CFR 50.55a requirements remain fully satisfied by the proposed TS changes.

The NRC staff finds that the inclusion of the SFCP TS notes relating to the applicability of SR 3.0.2 and SR 3.0.3 to 10 CFR 50.55a(f) SRs and Section 5.5 Tests is appropriate and provides additional assurance that SFCP-managed surveillance frequencies will be controlled in a manner that is fully consistent with existing regulations and TS conventions.

As stated in Section 2.0, the licensee proposed adding the periodic tests contained in the Section 5.0 programs to the SFCP, consistent with TSTF-596. In Vogtle, Units 3 and 4, TS, the applicable programs are the VES Ventilation Filter Testing Program (TS 5.5.13) and the Control Room Envelope Habitability Program (TS 5.5.12). The licensee proposed to change the specified test intervals in those program descriptions to state that they will be performed "at a Frequency in accordance with the Surveillance Frequency Control Program," rather than at fixed intervals (e.g., "once per 18 months"). With this change, the SFCP will manage the periodicity of these tests using the NEI 04-10 process, potentially allowing the licensee to adjust the frequency of a charcoal filter test if supported by risk and empirical data (while still meeting the intent of RG 1.52 for maintaining filter efficiency).

The NRC staff finds the inclusion of the VES and CRE Habitability program surveillances in the SFCP acceptable because these are routine periodic tests similar to the periodic TS SRs approved for inclusion in the SFCP by TSTF-425, and relocating their frequency to a controlled program does not diminish the importance. Each such test will still be performed and satisfy its TS intent. The main difference is that the interval between tests can be modified in accordance with the SFCP program, if justified (subject to the technical and regulatory criteria discussed in sections 4.1 and 4.5 of this evaluation).

Based on the above evaluations, the NRC staff concludes that 10 CFR 50.36 and 10 CFR 50.65 will continue to be met with the proposed changes and that the SFCP can support 10 CFR 50.69, if adopted. Therefore, the proposed changes are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Georgia State official was notified of the proposed issuance of the amendments on September 3, 2026. On September 16, 2026, the State official confirmed the State of Georgia had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

This action relates to authorizations under, or changes to requirements in 10 CFR part 50 or 52 with respect to installation or use of a facility component. The NRC staff has determined that any ground disturbance is limited to previously disturbed areas. Additionally, the NRC staff has determined that the action involves no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, no significant increase in individual or cumulative public or occupational radiation exposure, and no significant increase in the potential for or consequences from radiological accidents. Finally, the NRC staff has determined that a categorical exclusion applies and that special circumstances under 10 CFR 51.22, "Categorical exclusions," are not present that would preclude reliance on the categorical exclusion. Accordingly, this action meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(d)(8). Pursuant to 10 CFR 51.22, no environmental impact statement or environmental assessment need be prepared in connection with the action.

6.0 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.

Date: October 6, 2026

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 - ISSUANCE OF AMENDMENT NOS. 220 AND 217 TO REVISE TECHNICAL SPECIFICATIONS TO INCLUDE A SURVEILLANCE FREQUENCY CONTROL PROGRAM BASED ON TECHNICAL SPECIFICATION TASK FORCE TRAVELERS 425, 563, AND 596 (EPID L-2026-LLA-0041) DATED OCTOBER 6, 2026

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