



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200  
ATLANTA, GEORGIA 30303-1200

August 1, 2025

Jamie Coleman  
Regulatory Affairs Director  
Southern Nuclear Operating Company, Inc  
3535 Colonnade Parkway  
Birmingham, AL 35243

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 – INTEGRATED  
INSPECTION REPORT 05200025/2025002 AND 05200026/2025002

Dear Jamie Coleman:

On June 30, 2025, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Vogtle Electric Generating Plant, Units 3 and 4. On July 29, 2025, the NRC inspectors discussed the results of this inspection with Patrick Martino, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

Two findings of very low safety significance (Green) are documented in this report. Both of these findings involved violations of NRC requirements. We are treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violations or the significance or severity of the violations documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement; and the NRC Resident Inspector at Vogtle Electric Generating Plant, Units 3 and 4.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; and the NRC Resident Inspector at Vogtle Electric Generating Plant, Units 3 and 4.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,



Signed by Blamey, Alan  
on 08/01/25

Alan J. Blamey, Chief  
Reactor Projects Branch 3  
Division of Operating Reactor Safety

Docket Nos. 05200025 and 05200026  
License Nos. NPF-91 and NPF-92

Enclosure:  
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4 – INTEGRATED INSPECTION REPORT 05200025/2025002 AND 05200026/2025002 DATED AUGUST 1, 2025

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DATE	7/31/2025	7/31/2025	8/01/2025		

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Numbers: 05200025 and 05200026

License Numbers: NPF-91 and NPF-92

Report Numbers: 05200025/2025002 and 05200026/2025002

Enterprise Identifier: I-2025-002-0030

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Vogtle Electric Generating Plant, Units 3 and 4

Location: Waynesboro, GA

Inspection Dates: April 01, 2025 to June 30, 2025

Inspectors: T. Fanelli, Senior Resident Inspector  
J. Parent, Resident Inspector

Approved By: Alan J. Blamey, Chief  
Reactor Projects Branch 3  
Division of Operating Reactor Safety

Enclosure

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee’s performance by conducting an integrated inspection at Vogtle Electric Generating Plant, Units 3 and 4, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC’s program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

### List of Findings and Violations

Fire Doors not Restored prior to Terminating Fire Watch			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05200026/2025002-01 Open/Closed	[H.12] - Avoid Complacency	71111.05
The NRC identified a Green finding and associated non-cited violation (NCV) of Technical Specification (TS) 5.4, “Procedures,” for the licensee’s failure to implement fire protection program procedure NMP-ES-035-007, “Fleet Fire Watch Instruction,” for fire watch activities on propped open fire doors.			

Failure to Ensure Passive Cooling System Integrity			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05200026/2025002-02 Open/Closed	[H.8] - Procedure Adherence	71111.12
The NRC identified a Green finding and associated NCV of Title 10 of the <i>Code of Federal Regulations</i> Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure to accomplish mechanical agitation in accordance with the work instructions in troubleshooting plan NMP-AD-002-F04, when attempting to seat a safety-related check valve in the passive core cooling water system.			

### Additional Tracking Items

None.

## PLANT STATUS

Unit 3 began the inspection period at or near rated thermal power (RTP). On May 22, 2025, the unit was shut down for planned maintenance outage (PMO) V32025A. The unit was restarted on May 30, 2025, and achieved RTP on June 2, 2025, where it operated for the remainder of the inspection period.

Unit 4 began the inspection period shut down for PMO V42025A. On April 4, 2025, the unit was restarted and began raising power. On April 6, 2025, the unit reached 70% RTP, where it was maintained as part of a fuel management strategy to extend core life until the first refueling outage. On April 18, 2025, the unit was downpowered (via a unit runback) to 55% RTP due to degraded main condenser vacuum resulting from the trip of the 'A' and 'C' condenser vacuum pumps. After restoration of the pumps, including placing an additional pump in-service ('D' condenser vacuum pump), the unit was returned to 70% RTP later that day. On May 12, 2025, the unit was downpowered to 30% RTP to support tube leak checks and repairs on the main condenser. The unit returned to 70% RTP on May 18, 2025, and on May 30, 2025, it was raised to RTP, where it operated for the remainder of the inspection period.

## INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed activities described in IMC 2515, Appendix D, "Plant Status," observed risk significant activities, and completed on-site portions of IPs. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

## REACTOR SAFETY

### 71111.05 - Fire Protection

#### Fire Area Walkdown and Inspection Sample [AP1000] (IP Section 03.01) (3 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) Unit 3 containment building hot work during its PMO (V32025A) on May 23, 2025:
  - Fire Area: 1000 AF 01, Fire Zone: 1100 AF 11301: Containment Building Elev. 166'-1", steam generator 1 compartment
  - Fire Area: 1000 AF 01, Fire Zone: 1100 AF 11302: Containment Building Elev. 166'-1", steam generator 2 compartment
  - Fire Area: 1000 AF 01, Fire Zone: 1100 AF 11303A: Containment Building Elev. 166'-1", lower ADS [automatic depressurization system] valve area

- Fire Area: 1000 AF 01, Fire Zone: 1100 AF 11303B: Containment Building Elev. 250'-0", upper ADS valve area
  - Fire Area: 1000 AF 01, Fire Zone: 1100 AF 11500: Containment Building Elev. 135'-3", operating deck
  - Fire Area: 1250 AF 01, Fire Zone/Room: 12501: Auxiliary Building Non-RCA [radiologically controlled area] Elev. 135'-3", NI non-RCA vent/Divisions 'A' and 'C' equipment room
- (2) Unit 4 auxiliary building non-RCA on February 12, 2025:
- Fire Area: 1230 AF 01, Fire Zone: 12300: Auxiliary Building Non-RCA Elev. 100'-0", corridor
  - Fire Area: 1202 AF 04, Fire Zone: 1232 AF 12301: Auxiliary Building Non-RCA Elev. 100'-0", division A I&C [instrumentation and control room]
  - Fire Area: 1232 AF 01, Fire Zone: 12303: Auxiliary Building Non-RCA Elev. 100'-0", remote shutdown room
  - Fire Area: 1200 AF 03, Fire Zone: 1230 AF 12311: Auxiliary Building Non-RCA Elev. 100'-0", corridor
  - Fire Area: 1202 AF 01, Fire Zone: 12S01: Auxiliary Building Non-RCA El. 100'-0", auxiliary stairwell S01
- (3) Unit 4 auxiliary building non-RCA on June 25, 2025:
- Fire Area: 1210 AF 01, Fire Zone: 1210 AF 12111: Auxiliary Building Non-RCA El. 66'-6", corridor
  - Fire Area: 1201 AF 02, Fire Zone: 1211 AF 12104: Auxiliary Building Non-RCA El. 66'-6", division B battery room 1
  - Fire Area: 1201 AF 03, Fire Zone: 1211 AF 12105: Auxiliary Building Non-RCA El. 66'-6", division D battery room
  - Fire Area: 1220 AF 01, Fire Zone: 1220 AF 12211: Auxiliary Building Non-RCA El. 82'-6", corridor
  - Fire Area: 1201 AF 02, Fire Zone: 1221 AF 12204: Auxiliary Building Non-RCA El. 82'-6", division B battery room 2
  - Fire Area: 1201 AF 03, Fire Zone: 1221 AF 12205: Auxiliary Building Non-RCA El. 82'-6", division D equipment room
  - Fire Area: 1201 AF 02, Fire Zone: 1222 AF 12207: Auxiliary Building Non-RCA El. 82'-6", division B equipment room
  - Fire Area: 1201 AF 02, Fire Zone: 1231 AF 12304: Auxiliary Building Non-RCA El. 100'-0", division B I&C room
  - Fire Area: 1201 AF 03, Fire Zone: 1231 AF 12305: Auxiliary Building Non-RCA El. 100'-0", division D I&C/penetration room

Fire Brigade Drill Performance Sample [AP1000] (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated onsite fire brigade training and performance during live fire training on April 16, 2025.

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the main control room during a planned unit 4 startup and power increase to 70% RTP following PMO V42025A on April 4, 2025.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) The inspectors observed and evaluated Shift Operator Crew #1A during a simulator scenario consisting of a down power, a seismic event that caused a Non-OBE [Operating Basis Earthquake] exceedance alarm, a reactor coolant system level transmitter (3-RCS-LT305A) failing low, and a 10% steam leak inside the containment building on April 21, 2025.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (3 Samples)

The inspectors evaluated the effectiveness of maintenance to ensure the following structures, systems, and components (SSCs) remain capable of performing their intended function:

- (1) Replacement of the unit 4 'B' core make-up tank (CMT) make-up line check valve 4-PXS-V231B due to a weld failure identified on March 23, 2025
- (2) Replacement of safety-related fuses on the following unit 4 passive core cooling system (PXS) valves, to address operating experience gained from the unit 3 inadvertent safeguard actuation that occurred on September 17, 2024 (ADAMS Accession Number ML24323A169)
  - CMT 'A' outlet air operated valve 4-PXS-V014A and 4-PXS-V015A, on March 28, 2025. (Work orders [WOs] SNC2314832 and SNC2314834)
- (3) Replacement of safety-related fuses on the following unit 4 passive core cooling system (PXS) valves, to address operating experience gained from the unit 3 inadvertent safeguard actuation that occurred on September 17, 2024
  - Passive residual heat removal heat exchanger outlet flow control valves 4-PXS-V108A and 4-PXS-V108B, on March 29, 2025. (WOs SNC2314831 and SNC2314830)

Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following SSC remains capable of performing its intended function:

- (1) Main control room habitability system (VES) valves
  - Replacement of valve packing with safety-related packing for valves 4-VES-V024A (WO SNC1686431) and 4-VES-V025A (WO SNC1686436) on March 28, 2025
  - Tightening of packing for valve 4-VES-V024B to reduce leakage (WO SNC1686437) on March 28, 2025

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample [AP1000] (IP Section 03.01) (1 Sample)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) Unit 3 outage risk assessment during PMO V32025A on May 27, 2025

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment [AP1000] (IP Section 03.01) (2 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) Condition report (CR) 11159622, "Unsat results for VES flow surveillance," and CR11166678, "PMT for SNC1760369, 4-VES-V040C failed," On April 3, 2025
- (2) CR 11188567, "Unsat Surveillance Results," on June 19, 2025

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications [AP1000] (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) SNC1594231, 4-PMS-JD-RTSD01 - Reactor Trip Switchgear Division D Breaker 1, Install new shunt trip return spring design
  - ND-LI-VNP-002-F01, Applicability Determination, dated October 6, 2022
  - ND-LI-VNP-002-F06, 50.59 Departure/Screening, dated August 8, 2023

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (2 Samples)

- (1) The inspectors evaluated unit 4 PMO V42025A activities including the following replacement and repair activities from March 23, 2025, to April 8, 2025.
  - Main control room emergency habitability system valve leaks
  - Passive core cooling system valve damages
  - Containment recirculation cooling system fan damages
  - Condensate system condenser tubes leaks
  - Main generator hydrogen system leaks
  - Installation of the refueling cavity stairway
- (2) The inspectors evaluated unit 3 PMO V32025A activities, including the following replacement and repair activities from May 22, 2025, to May 30, 2025.
  - Containment recirculation cooling system fan damage
  - Replacement of moisture separator reheater shell drain tank pump 'B'

## **OTHER ACTIVITIES – BASELINE**

### 71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

#### MS05: Safety System Functional Failures (SSFFs) Sample [AP1000] (IP Section 02.04) (1 Sample)

- (1) Unit 3 (October 1, 2024 through March 31, 2025)  
Unit 4 (October 1, 2024 through March 31, 2025)

#### BI01: Reactor Coolant System (RCS) Specific Activity Sample [AP1000] (IP Section 02.10) (1 Sample)

- (1) Unit 3 (October 1, 2024 through March 31, 2025)  
Unit 4 (October 1, 2024 through March 31, 2025)

#### BI02: RCS Leak Rate Sample [AP1000] (IP Section 02.11) (1 Sample)

- (1) Unit 3 (October 1, 2024 through March 31, 2025)  
Unit 4 (October 1, 2024 through March 31, 2025)

### 71152A - Annual Follow-up Problem Identification and Resolution

#### Annual Follow-up of Selected Issues (Section 03.03) (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

- (1) Management, prioritization, and closure of CRs to WOs identified with a "scheduled start date" of January 2031; and corrective action status for long-standing compensatory measures.

### 71152S - Semiannual Trend Problem Identification and Resolution

#### Semiannual Trend Review (Section 03.02) (1 Sample)

- (1) The inspectors reviewed the licensee's corrective action program, maintenance rule database, operator control room logs, and management review committee reports for potential adverse trends in equipment reliability that might indicate a significant safety issue. They did not identify any negative trends that could lead to a more significant safety issue. However, they noted recurring issues with the containment recirculation cooling system fans on both unit 3 and unit 4, which are being monitored and addressed.

## INSPECTION RESULTS

Fire Doors not Restored prior to Terminating Fire Watch			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05200026/2025002-01 Open/Closed	[H.12] - Avoid Complacency	71111.05
<p>The NRC identified a Green finding and associated non-cited violation (NCV) of Technical Specification (TS) 5.4, "Procedures," for the licensee's failure to implement fire protection program procedure NMP-ES-035-007, "Fleet Fire Watch Instruction," for fire watch activities on propped open fire doors.</p> <p><u>Description:</u> On February 12, 2025, during a plant tour, the NRC inspectors discovered that fire door 4-12311-AD-D01 was propped open for testing the 'A' Division of the 24-hour station batteries (Class 1E direct current [DC] and uninterrupted power source system). The inspector reviewed the fire watch posting on the door and noted that the posting expired nine days earlier. Control room operators were notified. Operators walked down the area and identified an additional three fire doors, which were also propped open to support the battery test (i.e., running test cabling), with postings expired for nine days.</p> <p>The inspectors determined that the licensee failed to ensure that all fire doors that had been propped open (i.e., impaired) in support of the equipment testing were restored (i.e., close) prior to terminating the associated hourly fire watches as required by fire protection procedure NMP-ES-035-007.</p> <p>Corrective Actions: The licensee documented the issue in the corrective action program under condition report (CR) 11150850, created new fire impairments, and hung new fire door postings. Electrical maintenance was directed to remove the test cabling. Later, operations closed the fire doors, restoring them to functional status. An incident response team was established to investigate the incident.</p> <p>Corrective Action References: CR 11150850, CR 11153739, and technical evaluation (TE) 1172200</p> <p><u>Performance Assessment:</u></p> <p>Performance Deficiency: The failure to conduct hourly fire watches for fire doors propped open, in support of testing division 'A' safety-related station batteries, as required by fire protection procedure NMP-ES-035-007 was a performance deficiency.</p> <p>Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Protection Against External Factors attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, four fire doors on multiple floors in the north auxiliary building, which contains safety-related equipment, were left propped open and non-functional for a period of nine days without the required hourly fire watch.</p> <p>Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix F, "Fire Protection and Post - Fire Safe Shutdown SDP [significance determination process]." Using Attachment 1, "Fire Protection Significance Determination Process</p>			

Worksheets,” the inspectors screened the finding as Green. If a fire were to spread from one fire area to another due to the degraded fire barriers, no additional targets would have been damaged in the exposed fire areas that could impact the credited safe shutdown strategy for the exposing fire areas (Step 1.4.4-E Question).

Cross-Cutting Aspect: H.12 - Avoid Complacency: Individuals recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Individuals implement appropriate error reduction tools. Specifically, the licensee failed to implement appropriate error reduction tools, such as ensuring fire impairment documentation was available and referenced during the walkdown intended to verify that all affected fire doors were properly closed and restored to functional status prior to securing the hourly fire watches. In addition, there was insufficient communication between the personnel responsible for removing test cables and restoring fire door functionality, and the individual performing the walkdown and terminating the fire watch.

Enforcement:

Violation: Technical Specifications 5.4. “Procedures,” requires, in part, that written procedures shall be implemented covering Fire Protection Program activities (TS 5.4.1.d).

Licensee Fire Protection Program procedure NMP-ES-035-007, “Fleet Fire Watch Instruction,” requires the licensee conduct hourly fire watches on impaired (i.e., propped open) fire doors.

Contrary to the above, from February 3, 2025, to February 12, 2025, the licensee failed to implement fire protection program procedure NMP-ES-035-007 to conduct hourly fire watches for fire doors propped open in support of safety-related electrical equipment testing.

Enforcement Action: This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy.

**Failure to Ensure Passive Cooling System Integrity**

Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05200026/2025002-02 Open/Closed	[H.8] - Procedure Adherence	71111.12

The NRC identified a Green finding and associated non-cited violation (NCV) of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure to accomplish mechanical agitation in accordance with the work instructions in troubleshooting plan NMP-AD-002-F04, when attempting to seat a safety-related check valve in the passive core cooling water system (PXS).

Description: In March 2025, while conducting a Vogtle Unit 4 containment walkdown during a planned maintenance outage, NRC inspectors identified damage to stainless steel check valve 4-PXS-V231B (V231B). The valve is qualified as an ASME [American Society of Mechanical Engineers] Class 2 component and is located in the make-up piping to the ‘B’ core make-up tank (CMT). The valve exhibited visible deformation to the body and cap with evidence of CMT inventory leakage (i.e., boric acid residue). The issue had not been previously entered into the licensee’s corrective action program.

The inspectors' follow-up review identified that the damage to the check valve occurred between the fall of 2023 and early 2024, when licensee identified the valve as a source of leak-by that contributed to unacceptable temperature deviations in the unit 4 PXS. In response, the licensee implemented troubleshooting activities that included mechanical agitation to attempt reseating the valve disc. Licensee work instructions, as specified in NMP-AD-002-F04, "Contingency task to seat PXS check valves on Unit 4," permit the use of mechanical agitation to assist check valve seating under defined limitations. The procedure explicitly prohibits metal-to-metal contact manipulation to prevent damage to valve components. It states that if a metallic object, such as a ball peen hammer, is used to strike the valve, a nonmetallic interface (e.g., rubber or wood) must be used to eliminate direct metal contact. From visual indication, the inspectors determined that the valve was struck repeatedly with sufficient force to cause visible dents and to break the weld that sealed the cap to the valve body. The broken weld allowed the loss (i.e., leakage) of CMT inventory to the floor. The extent and nature of the damage indicated the condition would have been readily noticeable at the time it occurred.

The inspectors determined that the licensee failed to implement the required procedural controls while performing mechanical agitation. The protective measures specified in the work instruction to prevent metal-to-metal contact were not followed, resulting in physical damage to safety-related check valve V231B. The failure to properly implement procedural guidance affected the CMT ability to retain inventory (i.e., leakage from the broken weld), increasing the likelihood of occurrence of a malfunction of the CMT function.

Corrective Actions: The licensee entered the deficiency into the corrective action program and replaced the check valve.

Corrective Action References: Condition report (CR) 11163474 and 11164444

Performance Assessment:

Performance Deficiency: The failure to accomplish mechanical agitation of CMT make-up check valve V231B in accordance with the work instructions in troubleshooting plan NMP-AD-002-F04 was a performance deficiency.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the performance deficiency affected the CMT inventory retention, increasing the likelihood of occurrence of a malfunction or isolation to prevent leakage of the CMT, which affected the reliability of the PXS.

Significance: The inspectors assessed the significance of the finding using IMC 0609 Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The inspector determined that this finding is of very low safety significance (Green) because although the finding affected the qualification of check valve V231B, the CMT maintained its operability.

Cross-Cutting Aspect: H.8 - Procedure Adherence: Individuals follow processes, procedures, and work instructions. Specifically, the organization did not follow work instructions to perform mechanical agitation without metal-to-metal contact causing damage to check valve V231B.

Enforcement:

Violation: Title 10 CFR Part 50 Appendix B, Criterion V, "Instructions, Procedures, and Drawings," states in part that activities affecting quality shall be prescribed by documented instructions of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions.

Contrary to the above, since the fall of 2023, the licensee failed to accomplish mechanical agitation of CMT make-up line check valve V231B in accordance with work instructions in troubleshooting plan NMP-AD-002-F04. Specifically, protective measures specified in the work instruction to prevent metal-to-metal contact were not followed, resulting in physical damage to safety-related check valve and increasing the likelihood of occurrence of a malfunction of the CMT function.

Enforcement Action: This violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy.

## **EXIT MEETINGS AND DEBRIEFS**

The inspectors verified that no proprietary information was retained or documented in this report.

- On July 29, 2025, the inspectors presented the integrated inspection results to Patrick Martino, Site Vice President, and other members of the licensee staff.

## DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.05	Fire Plans	B-PFP-ENG-001-F3105	Pre-Fire Plan - Containment Building EI 135'-3"	Version 2.0
		B-PFP-ENG-001-F3107	Pre-Fire Plan - Containment Building EI 166'-1"	Version 2.0
		B-PFP-ENG-001-F3108	Pre-Fire Plan - Containment Building EI 250'-0"	Version 1.0
		B-PFP-ENG-001-F3115	Pre-Fire Plan - Auxiliary Building Non-RCA EI 135'-3"	Version 3.0
		B-PFP-ENG-001-F4111	Pre-Fire Plan - Auxiliary Building Non-RCA EI 82'-6"	Version 1.0
		B-PFP-ENG-001-F4113	Pre-Fire Plan - Auxiliary Building Non-RCA EI 66'-6"	Version 1.0
		B-PFP-ENG-001-F4113	Pre-Fire Plan - Auxiliary Building Non-RCA EI 100'-0"	Version 1.0
	Miscellaneous	S-FP-SG-11300-9.1	Structural Live Fire Training	12/01/2017
Procedures	B-FPS-MMM-004	Portable Fire Extinguishers and Fire Hose Stations Visual Inspection	Version 9.0	
71111.11Q	Calculations	NMP-RE-019	Beacon 7 Estimated Critical Condition Calculations	03/28/2025
	Miscellaneous	AP-LT-C-SE-25-3Z	Segment 25-3Z-As-Found	Revision 1
	Procedures	3-AOP-901	Acts of Nature	Version 2.0
		3-EOP-E-0	Reactor Trip or Safeguards Actuation	Version 1.1
		4-GOP-101	Power Operations Above 25% Power	Version 8.0
		4-GOP-301	Mode Change Checklists	Version 1.1
		4-GOP-302	Reactor Startup Mode 3 to Mode 2	Version 3.0
		4-GOP-303	Plant Heatup Mode 5 to Normal Operating Temperature	Version 6.0
		4-GOP-306	Plant Startup Mode 2 to 25% Power	Version 5.0
NMP-EP-141	Event Classification	Version 4.0		
71111.12	Corrective Action Documents	CR11163474	Boron Acid leak on 4-PXS-V231B	03/23/2025
		CR11164444	IST Eval Request for 3/4-PXS-V231A/B	03/26/2025
		CR11164555	Work Order request for testing of 4-PXS-V231B	03/26/2025

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR11165616	4-PXS-V230B Exercise Test Data Review	03/31/2025
	Procedures	NMP-MA-014-001	Post Maintenance Testing Guidance	Version 5.12
	Work Orders	SNC1581451	4-VES-V026A - Mech – Replace Packing	03/28/2025
		SNC1686435	4-VES-V025B Tighten/Replace Valve Packing	04/03/2025
		SNC1686436	4-VES-V025A - Replace Packing	03/28/2025
		SNC2314830	4-PXS-V108B - PRHR HX Outlet FCV	Rev. 0
		SNC2314831	4-PXS-V108A - PRHR HX Outlet FCV	Rev 0
		SNC2314832	4-PXS-V014A - CMT A Outlet AOV	Rev. 0
		SNC2314834	4-PXS-V015A - CMT A Outlet AOV	Rev. 0
SNC2403118	Perform surveillance of 4-PXS-V231B per 4-PXS-OTS-10-002 prior to replacement	Rev. 0		
71111.13	Miscellaneous	B-ADM-OPS-011	Outage Risk Assessment Monitoring - V32025A Shutdown Safety Assessment	05/19/2025
	Procedures	B-ADM-OPS-011	Outage Risk Assessment Monitoring	4.1
71111.15	Corrective Action Documents	CR 11188567	Unsat Surveillance Results	06/19/2025
		CR 11188932	4-RCS-OTS-16-004 data sheet discrepancy	06/20/2025
		CR11159622	UNSAT results for VES flow surveillance	3/11/2025
		CR11166678	PMT for SNC1760369, 4-VES-V040C failed	4/2/2025
	Engineering Evaluations	TE 1180585	Unsat Surveillance Results	06/23/2025
	Procedures	4-RCS-OTS-16-004	RCP-2B Bearing Water Temperature Calibration	Version 4.0
NMP-AD-012		Operability Determinations	Version 16.3	
71111.18	Procedures	4-PMS-OTS-18-002	Division A RTB, RT Processor, RTB Undervoltage and Shunt Trip Testing	Version 1.0
71111.20	Calculations	NMP-RE-019	Beacon 7 Estimate Critical Condition Calculations	03/28/2025
	Miscellaneous		Containment Cleanliness and Fuel Load	
	Procedures	3-CNS-SOP-001	Containment System	Version 5.0
		3-GOP-101	Power Operations Above 25% Power	Version 8.0
		3-GOP-101	Power Operations Above 25% Power	Version 8.0
		3-GOP-202	Plant Shutdown 25% Power To Mode 3	Version 1.0
		4-CNS-SOP-001	Containment System	Version 2.0
4-GOP-101	Power Operations Above 25% Power	Version 8.0		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		4-GOP-101	Power Operations Above 25% Power	Version 8.0
		4-GOP-301	Mode Change Checklists	Version 1.1
		4-GOP-302	Reactor Startup Mode 3 to Mode 2	Version 3.0
		4-GOP-303	Plant Heatup Mode 5 to Normal Operating Temperature	Version 6.0
		4-GOP-306	Plant Startup Mode 2-to 25% Power	Version 5.0
		B-GEN-ENG-032	Containment Cleanliness and Sampling Program	Version 1.0
71151	Miscellaneous		Intracompany Correspondence	01/16/2025
			Intracompany Correspondence	04/15/2025
71152A	Miscellaneous	Fleet Performance Analysis	Performance Improvement (PI) Scorecard May 2025	
	Procedures	NMP-GM-002	Corrective Action Program	Version 19.1
		NMP-GM-006	Work Management	Version 24.1
		NMP-GM-006-GL11	Work Prioritization Screening	Version 4.7
		NMP-OS-006-002	Aggregate Operator Impact Review Instruction	Version 5.1
		NMP-OS-028	Adverse Condition Monitoring Program	Version 1.0
71152S	Corrective Action Documents	CR 11154120	U4 April PMO requires additional clarification for VCS Fan operating	02/21/2025
		CR 11158142	4-VCS-MA-01D (Containment Recirc Fan D) failing to clear low-flow setpoint upon start	03/06/2025
		CR 11158255	4-VCS-MA-01D containment recirc fan D fast breaker trip	03/07/2025
		CR 11158602	4-VCS-MA-01D found damaged during visual inspection	03/08/2025
		CR 11159263	Inability to implement DECP SNC 2303279	03/10/2025
		CR 11162086	3-VCS-MA-01D tripped	03/19/2025
		CR 11165848	VCS D fan tripped on low flow	03/31/2025
		CR 11165886	4-VCS-MA-01D containment recirc fan D not meeting 4-VCS-SOP-001 flow requirement	03/31/2025
		CR 11168128	3-VCS-MA-01C VCS containment cooling fan C trip	04/07/2025
		CR 11169385	Discharge airflow from 4-VCS-MA-01C (CTMT Recirc Fan C) lowered	04/11/2025
		CR 11180089	U4 Failure Analysis of 4-VCS-MA-01B/C/D	05/20/2025
		CR 11181670	Timeout - U3 VCS fan D rotation imbalance	05/26/2025

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR 11182551	Baseline values for U3 VCS fans coming out of V32025A	05/29/2025
		CR 11189778	VCS Fan C and B fast breaker trip alarms received in the MCR	06/24/2025
	Engineering Evaluations	TE 1178625	U4 Failure Analysis of 4-VCS-MA-01B/C/D	05/21/2025