UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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July 14, 2026

EAF-RII-2025-0235

Eric S. Carr
President, Nuclear Operations and Chief Nuclear Officer
Dominion Energy South Carolina
5000 Dominion Blvd, Floor: IN-3SE
Glen Allen, VA 23060-6711

SUBJECT: VIRGIL C. SUMMER NUCLEAR PLANT – 95001 SUPPLEMENTAL INSPECTION REPORT 05000395/2026040 AND FOLLOW-UP ASSESSMENT LETTER

Dear Eric S. Carr:

On May 29, 2026, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection using Inspection Procedure 95001, "Supplemental Inspection Response to Action Matrix Column 2 (Regulatory Response) Inputs." On June 2, 2026, the NRC inspection team discussed the results of this inspection and the implementation of the station's corrective actions with you and other members of your staff.

The NRC performed this inspection to review the station's actions in response to a White finding in the Mitigating Systems cornerstone which was documented and finalized in NRC Inspection Report 05000395/2026091 (ADAMS Accession No. ML26054A271). On May 14, 2026, the NRC was informed that the station was ready for the supplemental inspection.

The NRC determined that the station's evaluation identified the cause of the White finding. Specifically, the organization determined that the recurring turbine-driven emergency feedwater pump (TDEFP) "overhaul" preventive maintenance (PM) task did not direct performance of the inspection and refurbishment of the overspeed trip assembly. As corrective action, the station established a new PM baseline by replacing the TDEFP overspeed assembly. Additionally, the station initiated revisions to procedural guidance to provide detailed overspeed trip assembly service inspection instructions. The TDEFP overspeed trip assembly will be inspected periodically for worn components and key overspeed trip assembly components will be replaced at the appropriate frequency.

The inspectors concluded that the corrective actions to preclude repetition of the root and contributing causes of the White finding were effective and adequately prioritized considering safety significance and regulatory compliance. In addition, the inspectors determined that evaluations were documented at a sufficient level of detail, included relevant operating experience, and identified the root causes, extent of conditions, and extent of causes of the

performance issue. Based on the results of the inspection, the inspectors concluded that the objectives of the inspection procedure were met.

The NRC determined that completed or planned corrective actions were sufficient to address the performance issue that led to the White finding. Therefore, the performance issue will be closed and no longer considered as an Action Matrix input as of the date of the exit meeting. However, Virgil C. Summer Nuclear Station will remain in the Regulatory Response Column of the NRC Action Matrix due to an additional White finding in the Mitigating Systems cornerstone opened in NRC Inspection Report 05000395/2026093, dated June 29, 2026 (ADAMS Accession No. ML26155A257).

No findings or violations of more than minor significance were identified during this inspection.

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

Sincerely,

Natasha Childs

Signed by Natasha Childs on 07/14/26

Natasha R. Childs, Acting Chief
Reactor Projects Branch A
R2 Division of Reactor Projects

Docket No. 05000395
License No. NPF-12

Enclosure:
As stated

cc w/ encl: GovDelivery Subscriber

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket Number:	05000395
License Number:	NPF-12
Report Number:	05000395/2026040
Enterprise Identifier:	I-2026-040-0002
Licensee:	Dominion Energy South Carolina
Facility:	Virgil C. Summer Nuclear Plant
Location:	Jenkinsville, SC
Inspection Dates:	May 26, 2026, to June 2, 2026
Inspectors:	D. Burgess, Reactor Inspector
Approved By:	Natasha R. Childs, Acting Chief Reactor Projects Branch A R2 Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a 95001 supplemental inspection at Virgil C. Summer Nuclear Plant, 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 for more information.https://www.nrc.gov/reactors/operating/oversight.html

List of Findings and Violations

No findings or violations of more than minor significance were identified.

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
NOV	05000395/2025003-01	Inadequate Maintenance Strategy Resulting in Turbine-Driven Emergency Feedwater Pump Inoperability EAF-RII-2025-0235	95001	Closed

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 . 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 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.http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

95001 - Supplemental Inspection Response to Action Matrix Column 2 (Regulatory Response) Inputs

The inspectors reviewed and selectively challenged aspects of the licensee's problem identification, causal analysis, and corrective actions in response to a White finding and associated Notice of Violation (NOV) of Technical Specification 6.8.1, "Procedures and Programs," for the licensee's failure to pre-plan or perform preventive maintenance on the unit 1 turbine-driven emergency feedwater pump (TDEFP) using written procedures, documented instructions, or drawings appropriate for the circumstances, as documented in NRC inspection reports 05000395/2025003 (ADAMS Accession Number: ML25345A337) and 05000395/2026090 (ML26033A004). The NRC's final significance determination was communicated in NRC inspection report 05000395/2026091 (ML26054A271).

1. Objective: Ensure that the root and contributing causes of individual and collective white performance issues are understood.

   Under this objective, the inspectors reviewed the root cause evaluation that the licensee conducted for failing to perform preventive maintenance on the unit 1 TDEFP. Their review consisted of an evaluation the following: the licensee's identification of the issue; when and how long the issue existed; prior opportunities for identification; documentation of significant plant-specific consequences and compliance concerns; use of systematic methodology to identify causes with a sufficient level of supporting detail; consideration of prior occurrences; identification of extent-of-condition and extent-of-cause; and identification of any potential programmatic weaknesses in performance.

   NRC Assessment: The team concluded that this objective was met. The licensee's root cause evaluation (RCE) identified one root cause (RC). The licensee determined the recurring TDEFP "overhaul" preventive maintenance (PM) task (RE653326 MMP0300.015-TPP0008 DISASSEMBLE, INSPECT, REASSEMBLE) did not direct performance of the inspection and refurbishment of the overspeed trip assembly (RC). The licensee also identified three contributing causes: (1) Virgil C. Summer (VCS) did not update or effectively implement the PM strategy (TURBT) to address known deficiencies from internal and external operating experience (OE). Historical OE reviews were ineffective at ensuring the PM strategy for the overspeed trip assembly was adequately addressed (CC1); (2) The station did not adequately resolve a precursor TDEFP inadvertent overspeed actuation during the maintenance retest run following the March 2025 governor replacement,

Condition Report (CR) 1284781 written March 4, 2025 (CC2); and (3) The TDEFP lacks an integrated and effective condition trending approach, driven by insufficient performance monitoring instrumentation and inadequate maintenance procedure detail (MMP-300.015). This prevents effective trending of key wear indicators and critical subcomponent parameters (CC3).

a. Identification: The RCE stated that the TDEFP tripped during a performance of its quarterly surveillance (STP-220.002). The resultant inoperability of the TDEFP was self-revealing.

b. Exposure Time: The RCE appropriately identified that the failure to perform inspection and maintenance of the TDEFP overspeed trip function existed since 2006.

c. Identification Opportunities: The licensee appropriately identified prior opportunities for identification. The licensee determined that opportunities existed to identify the issue during a 2011 performance of the TDEFP overhaul, during a 2014 OE review of NRC Information Notice 2014-03, and after a precursor TDEFP inadvertent actuation in 2025.

d. Risk and Compliance: The licensee appropriately documented plant-specific consequences and compliance concerns associated with the performance issue. The licensee documented that the failure to properly perform maintenance rendered the TDEFP unable to perform its intended safety function. The licensee documented an assessment of safety consequences with regards to nuclear, industrial, and radiation safety.

e. Methodology: The inspectors determined the RCE employed a systematic evidence-based methodology to determine root and contributing causes of the White finding. The methodology included the Why Staircase, Hazard Barrier Target Analysis, and Comparative Timeline.

f. Level of Detail: The inspectors determined the RCE was performed commensurate with the safety significance and complexity of the performance issue and was sufficiently detailed to identify the root and contributing causes, extent of conditions, and extent of causes. The RCE team utilized a formal cause analysis process to identify the problem and determine corrective actions.

g. Operating Experience: The RCE appropriately considered operating experience. The licensee reviewed internal corrective actions and similar external events in the nuclear industry.

h. Extent of Condition and Cause: The licensee employed the Same-Similar technique to identify the extent of condition and extent of cause of the White finding. The licensee appropriately considered the safety culture traits in NUREG-2165, “Safety Culture Common Language,” referenced in IMC 0310-06, in their evaluations of the root cause, extent of condition, and extent of cause.

2. Objective: Ensure that the extent-of-condition and extent-of-cause of individual and collective white performance issues are identified.

Under this objective, the inspectors independently assessed the licensee’s Same-Similar reviews in the extent-of-condition and extent-of-cause analyses.

NRC Assessment: The team concluded that this objective was met.

Extent of Condition and Cause: The licensee used the same object – same application (Tier 1), same object – other application (Tier 2), similar object – same application (Tier 3), and similar object – other application (Tier 4) methodologies to evaluate the extent of condition and the extent of cause. For the extent of cause, no additional vulnerabilities were identified in Tier 1. For the extent of cause, Tier 2, the RCE identified that the TDEFP overhaul PM task (RE653326) did not direct performance of the inspection and refurbishment of other TDEFP subcomponents. This vulnerability is addressed with a separate RCE. For the extent of cause, Tier 3, the licensee reviewed overhaul tasks for mechanical overspeed trip devices on the emergency diesel generators (EDGs) and main feedwater pump (MFP) turbines. No vulnerabilities were identified for this tier. For Tier 4, the licensee identified potential extent of cause vulnerabilities related to subcomponent maintenance for other safety related and critical equipment. The licensee initiated corrective action (CA)13750035 and CA13831132 (detailed below) to perform vulnerability assessments for these systems. For the extent of condition, VCS only has one TDEFP with a single overspeed trip mechanism. There are no additional vulnerabilities for Tier 1, Tier 2, and Tier 3. Existing wear was rectified with the completion of corrective action to preclude repetition (CAPR)1 (below) by replacing the overspeed trip assembly. For the extent of condition, Tier 4, the licensee evaluated overspeed trip devices on other safety related and critical components for worn components. This review included trip devices on the EDG and MFP turbines.

3. Objective: Ensure that completed corrective actions to address and preclude repetition of white performance issues are timely and effective.

   Under this objective, the inspectors assessed the appropriateness and timeliness of the licensee's corrective actions.

   NRC Assessment: The team concluded that this objective was met. The inspectors determined the completed CAPR and CA were timely and adequate to preclude repetition.

   a. Completed Corrective Actions to Preclude Repetition
      1) CAPR1: Establish new PM baseline by replacing EFW overspeed assembly in March 2026. This CAPR addressed the root cause.

         The licensee had not refurbished the overspeed trip assembly since 2006. This action was completed prior to the supplemental inspection and verified by inspectors through a review of the completed work order package. This CAPR replaced components on the overspeed trip assembly, including the tappet nut and emergency head lever, to eliminate existing wear. The licensee’s effectiveness review plan incorporates appropriate qualitative measures of success for this CAPR.

   b. Other Completed Corrective Actions
      In addition to the completed CAPR, the licensee completed the following action related to CC2:
      1) CA13639738: Perform a Performance Gap Analysis per PI-AA-100-1003 to determine if a management, process, or training solution is needed to improve performance.

This action was completed prior to the supplemental inspection and verified by inspectors. The performance gap analysis identified that the CR associated with the precursor inadvertent overspeed trip in March 2025 was not categorized with an appropriate significance level. As a result, a Level of Effort Evaluation (LEE) was not performed, and the condition was not resolved in a timely manner. The licensee initiated an update to the corrective action procedure (detailed in CACCA13750063) to resolve the performance gap associated with significance level determination of CRs.

4. Objective: Ensure that pending corrective action plans direct prompt and effective actions to address and preclude repetition of white performance issues.

Under this objective, the inspectors assessed the appropriateness and timeliness of the licensee's planned corrective actions.

NRC Assessment: The team concluded that this objective was met. The inspectors concluded that the CAPRs and CAs were timely and adequate to preclude repetition. The inspectors identified a general weakness associated with CAPR2 which is documented in the Inspection Results section of this report. When complete, the NRC plans to inspect and assess the planned CAPRs.

a. Planned Corrective Actions to Preclude Repetition
   1) CAPR2 CA13748838: Revise MMP 300.015, Section 7.8 to provide detailed overspeed trip assembly service inspection instructions and to require the TDEFP overspeed trip assembly to be inspected periodically for worn components.

      This CAPR addresses the root cause, CC2, and CC3. CAPR2 proposed procedure enhancements which include additional wear measurements and visual inspections. These enhancements can assist in future troubleshooting (CC2) and condition trending (CC3) of the TDEFP. The licensee’s effectiveness review plan incorporates appropriate qualitative measures of success for this CAPR. At the time of the inspection, the procedure changes had not been completed and the CAPR is planned for follow-up inspection.

   2) CAPR3 CA13748839: Establish Recurring Task Evaluation (RTE) to develop recurring PM task to replace key overspeed trip assembly components at a suggested frequency of R7 (10.5 years).

      This CAPR addresses the root cause of the event. The existing PM task did not direct refurbishment of the overspeed trip assembly; CAPR3 generates a new PM to perform the refurbishment. The licensee’s effectiveness review plan incorporates appropriate qualitative measures of success for this CAPR. At the time of the inspection, the CAPR actions had not been completed and the CAPR is planned for follow-up inspection.

b. Other Planned Corrective Actions
   1) In addition to the CAPRs, the licensee plans to implement the following actions to address the root cause:
      i. CA13750033: After the overspeed trip mechanism has been replaced (Work Order 88201771938) and MMP-300.015 has been updated, perform Section

7.8 to determine if all critical subcomponent parameters are within the allowable criteria.

ii. CA13750035 EOCa: Perform ER-AA-PRS-1006, System/Equipment Assessment (SEA) Process, including a maintenance strategy review and vulnerability assessment for all mitigating systems performance indicator (MSPI) Systems. SEA reports will be reviewed and approved by the corrective action review board (CARB).

iii. CA13831132 EOCa: Perform ER-AA-PRS-1006, System/Equipment Assessment (SEA) Process, including a maintenance strategy review and vulnerability assessment for a sampling of the non-MSPI Tier 1 systems (Include the main generator in the sample set). SEA reports will be reviewed and approved by the CARB. If additional deficiencies are noted, expand the sample size. Review should include critical subcomponents.

iv. CA13750073: Generate an RTE with an R01 frequency to conduct a general equipment inspection of the TDEFP condition.

v. CA13831139: Engineering to review fleet TDEFP mechanical overspeed trip assembly PM frequency and either change to align with more frequent performance or provide justification for the longer time frame.

vi. CA13831142: Develop a consistent method of measurement for tappet nut engagement and revise MMP-300.015 as needed.

vii. CA13831128: Review RCE (CR1319338) from Surry to determine if any CA are applicable at VCS.

2) In addition, the licensee plans to implement the following actions to address contributing causes:
   i. CACCCA13750047: Perform ER-AA-PRS-1006, “System/Equipment Assessment (SEA) Process,” including a maintenance strategy review and update, that includes addressing known deficiencies from internal and external operating experience, as well as a vulnerability assessment for the TDEFP. SEA should evaluate and establish a TDEFP Subcomponent PM strategy. SEA report will be reviewed and approved by the CARB. (CC1)

   ii. CACCCA13750049: Perform a PM strategy self-assessment to ensure VCS is aligned with industry best practices regarding PM strategy. (CC1)

   iii. CACCCA13750063: Update PI-AA-200, “Corrective Action,” with the following changes: Add a Note to 3.4.3 and Attachment 6 that states the following: “The significance level determination should be made based on the component’s deficient condition and not on the status of the component when the condition occurs. A deficient condition on a piece of equipment should be evaluated regardless of the status of component is in service or removed from service for maintenance.” (CC2)

iv. CACCCA13750070: Develop a case study for Engineering, Operations, Maintenance, PI, CRT and CAART individuals to discuss the following items regarding this event:
- If an inadvertent trip occurs, troubleshooting should be performed to eliminate all potential failure mechanisms, as is practical
- Engineering log entries may not always be sufficient to justify operability
- Scrutiny about whether the apparent cause was determined
- Don't allow other emergent issues to overshadow the need to identify, evaluate, and resolve the cause of an inadvertent (intermittent) equipment failure

Generate follow-on assignments for review of the case study by other sites in the fleet. (CC2).

v. CACCCA13750072: Submit CM-AA-REA-1001, Request for Engineering Assistance and ER-AA-PRS-1001 Plant Health Committee, Plant Health Issue List (PHIL) item to install additional monitoring instrumentation for key TDEFP parameters. (CC3)

vi. CA13750073: Generate an RTE with an R01 frequency to conduct a general equipment inspection of the TDEFP condition. (CC3)

vii. Operations to ensure surveillance test procedures are updated to incorporate new monitoring capabilities for TDEFP speed and/or governor valve stem strain gage installed under VC-26-00009 (TDEFP Speed) and VC-26-00010 (governor valve stem strain gage). Update should include documenting peak speed on startup and writing a CR if peak TDEFP speed is greater than 4800 rpm for trending purposes. (CC3)

Conclusion

The inspectors concluded that the corrective actions to preclude repetition of the root and contributing causes of the White finding were effective and adequately prioritized considering safety significance and regulatory compliance. In addition, the inspectors determined that evaluations were documented at a sufficient level of detail, included relevant operating experience, and identified the root causes, extent of conditions, and extent of causes of the performance issue. Based on the results of the inspection, the inspectors concluded that the objectives of the inspection procedure were met and that the finding will be closed.

INSPECTION RESULTS

Assessment	95001
Omission in Corrective Action to Preclude Repetition The inspectors identified a general weakness in CAPR2 in accordance with IMC 2515, Appendix B, “Supplemental Inspection Program.” The proposed procedure changes to MMP 300.015 outlined in CAPR2 did not include developing a consistent method of measurement for tappet nut engagement. Adequate engagement between the tappet nut and emergency head lever is necessary to prevent spurious actuation of the overspeed trip mechanism. Although the licensee planned a separate corrective action (CA13831142) to develop the measurement, it was not designated as a CAPR. The licensee wrote CR1325628 to capture this omission. The inspectors determined this issue is not of more than minor significance in accordance with IMC 0609, Appendix A, "The At-Power Significance Determination Process."	

EXIT MEETINGS AND DEBRIEFS

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

- On June 2, 2026, the inspectors presented the 95001 supplemental inspection results to Beth Jenkins, Site Vice President, and other members of the licensee staff. Immediately following the exit meeting, Natasha Childs, Acting Chief, Reactor Projects Branch A, conducted the Regulatory Performance Meeting with Beth Jenkins and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
95001	Corrective Action Documents	CA13491707	Track WO88201771938 to complete	03/01/2026
		CR1298757	RCE Report	03/26/2026
	Corrective Action Documents Resulting from Inspection	CR1325314	Minor error in approved RCE	05/28/2026
		CR1325628	NRC 95001 Inspection Results	06/01/2026
	Procedures	ER-AA-PRS-1006	System/Equipment Assessment Process	Rev 4
		MMP 300.015	Turbine Maintenance, Emergency Feedwater Pump TPP0008	Rev 20B
		PI-AA-200	Corrective Action	Rev 45
		PI-AA-300-3001	Root Cause Evaluation	Rev 16
	Work Orders	88201771938	Refurbish overspeed tappet assembly	02/26/2026

Eric S. Car, President, Nuclear Operations and Chief Nuclear Officer
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