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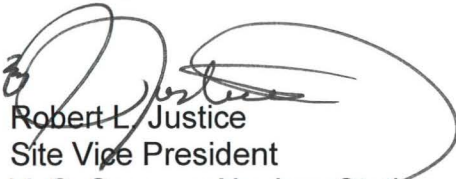
Serial No. 24-127  
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Docket No. 50-395  
License No. NPF-12

**DOMINION ENERGY SOUTH CAROLINA, INC.**  
**VIRGIL C. SUMMER NUCLEAR STATION UNIT 1**  
**ANNUAL OPERATING REPORT**

Enclosed is the 2023 Annual Operating Report for Virgil C. Summer Nuclear Station, Unit 1. This report is being submitted in accordance with Technical Specification 6.9.1.4.

If there are any questions, please call Justin Bouknight at (803) 941-9828.

Sincerely,



Robert L. Justice  
Site Vice President  
V. C. Summer Nuclear Station

cc: G. J. Lindamood – Santee Cooper  
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# VIRGIL C. SUMMER NUCLEAR STATION UNIT 1



## 2023 ANNUAL OPERATING REPORT

## PREFACE

The 2023 Annual Operating Report for Virgil C. Summer Nuclear Station Unit 1 is hereby submitted, in accordance with Technical Specification 6.9.1.4, under Docket Number 50-395 and Facility Operating License NPF-12.

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## **1.0 INTRODUCTION**

The Virgil C. Summer Nuclear Station Unit 1 (VCSNS) utilizes a pressurized water reactor rated at 2900 MWT. The maximum dependable capacity is 966 MWe.

The station is located approximately 26 miles northwest of Columbia, South Carolina.

## **2.0 OPERATIONAL DATA**

For the reporting period of January 1 through December 31, 2023, the station operated at a capacity factor of 88.8% (using maximum dependable capacity) and a unit availability of 87.9%. The reactor was critical for a total of 7713.3 hours, the generator remained on line 7698.4 hours and the total gross electrical energy generated for 2023 was 7,820,098 MWH.

## **3.0 OPERATING SUMMARY**

VCSNS operated at 100% power from January 1 until January 4. On January 4 at 13:19 EST, power reduction to 90% was commenced to perform Main Turbine Valve Testing. Reactor power was restored to 100% on January 4 at 20:50 EST. VCSNS operated at 100% power from January 5 until April 5.

On April 5 at 0651 EDT, VCSNS manually tripped the reactor following the automatic trip of Main Feedwater Pump 'C' (TPP0022C), while at reduced power for testing, in preparation for refueling outage 27 (RF27). RF27 commenced following the trip on April 5 and was completed May 19.

Following RF27, VCSNS maintained approximately 40-42% reactor power from May 19 at 12:28 EDT to May 23 at 14:25 EDT for secondary chemistry holds. During subsequent power ascension, Reactor power ascension was delayed while investigating high vibration on 'B' Main Feedwater Turbine (TPP0022B). Reactor power was restored to 100% on May 28 at 14:13 EDT.

On November 27 at 10:15 EST, power was reduced to 90% to perform Main Turbine Valve Testing. Reactor power was restored to 100% on November 27 at 20:03 EST.

The unit remained at 100% power for the remainder of 2023.

### **Forced Power Reduction > 20% Exceeding 4 Hours**

On April 5, VCSNS manually tripped the reactor following the automatic trip of Main Feedwater Pump 'C' (TPP0022C), while at reduced power for testing, in preparation for RF27, which had been scheduled to commence April 7, 2023.

## **4.0 FAILED FUEL**

VCSNS did not have any indications of failed fuel in 2023.