

V.C. Summer Nuclear Station
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ATTN: Document Control Desk
US Nuclear Regulatory Commission
Washington, D.C. 20555-001

Serial No. 21-108
LIC/TS/R0
Docket No. 50-395
License No. NPF-12

DOMINION ENERGY SOUTH CAROLINA, INC.
VIRGIL C. SUMMER NUCLEAR STATION UNIT 1
DOCKET NO. 50-395
OPERATING LICENSE NO. NPF-12
ANNUAL OPERATING REPORT

Enclosed is the 2020 Annual Operating Report for the Dominion Energy South Carolina, Inc. Virgil C. Summer Nuclear Station Unit No. 1. This report is being submitted in accordance with Technical Specification 6.9.1.4.

If there are any questions, please call Tracey Stewart at (803) 931-5663.

Sincerely,

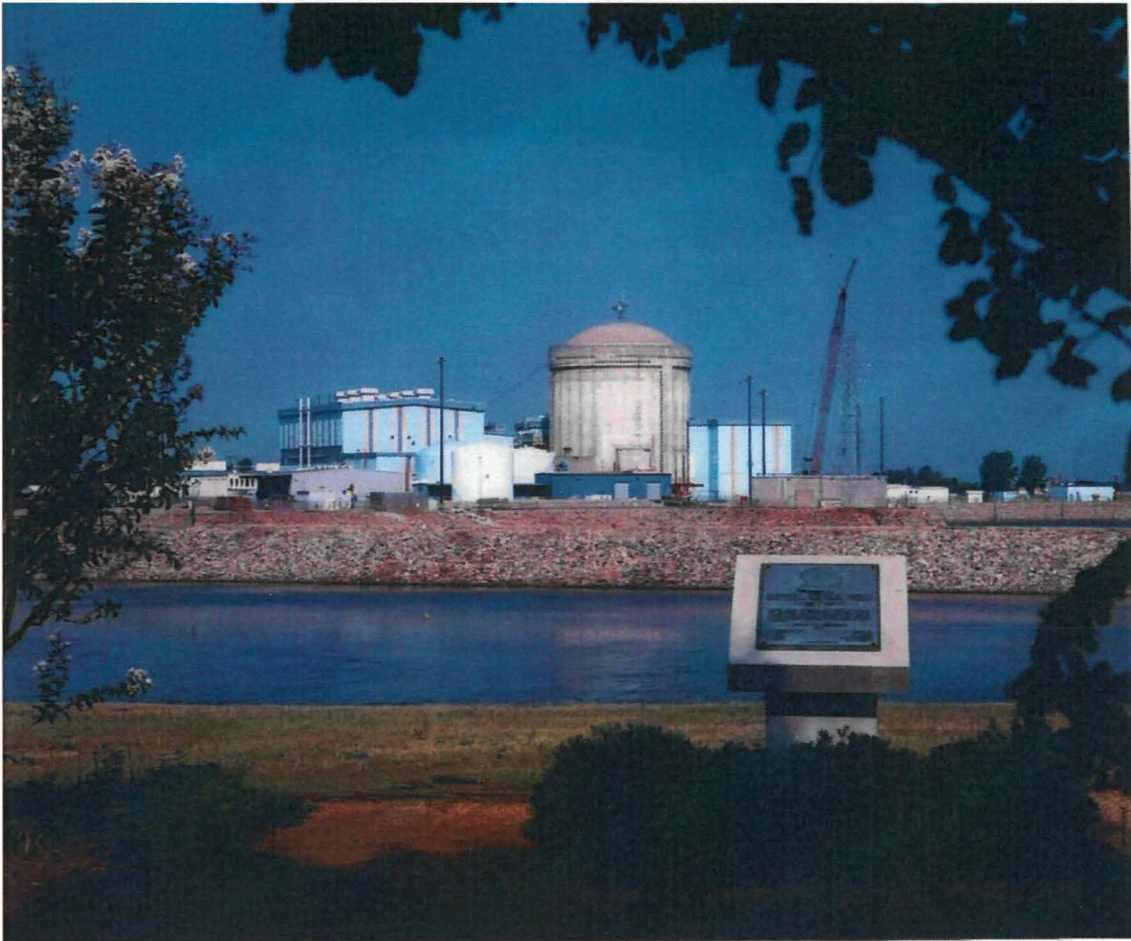
A handwritten signature in black ink, appearing to read "George A. Lippard".

George A. Lippard
Site Vice President
V. C. Summer Nuclear Station

w/o enclosure unless noted

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



2020 ANNUAL OPERATING REPORT

PREFACE

The 2020 Annual Operating Report for the 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 (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, 2020, the station operated at a capacity factor of 91.1% (using maximum dependable capacity) and a unit availability of 91.1%. The reactor was critical for a total of 8046.0 hours, the generator remained on line 8003.3 hours and the total gross electrical energy generated for 2020 was 8,041,633 MWH.

3.0 OPERATING SUMMARY

VCSNS Unit No.1 operated at 100% power from January 1st through April 10th. On April 10th the plant was shut down to begin Refueling Outage Twenty-Five (RF-25) when the Main Generator Breaker was opened at 21:56. The outage was completed on May 10th at 23:36 when the generator breaker was closed. Reactor power was restored to 100% on May 15th at 11:20.

VCSNS Unit No. 1 operated at 100% power from May 15th to July 27th. On July 27th power was reduced to 83% following a Circulating Water Pump trip. Reactor power was restored to 100% on July 30th.

VCSNS Unit No. 1 operated at 100% power from July 30th to August 22nd. On August 22nd power was reduced to 86% following a Circulating Water Pump trip. Reactor power was maintained at 86% for the remainder of August for replacement of the pump motor. Entering the month of September, plant power was 85%. The plant was shut down on September 7th to repair an air leak on the actuator of a Feedwater Isolation Valve. The shutdown ended on September 10th and the plant returned to 85% power. Due to seasonal conditions, as ambient temperature and Circ Water inlet temperature began to decrease, power was increased starting on September 14th. Reactor power was restored to 100% on September 25th.

The unit remained at 100% power for the remainder of 2020.

Forced Power Reduction > 20% Exceeding 4 Hours

On September 7th the plant was shut down to repair an air leak on the actuator of a Feedwater Isolation Valve. The shutdown ended on September 10th and the plant returned to 85% power. The total outage duration was 59.03 hours.

4.0 FAILED FUEL

VCSNS did not have any indications of failed fuel in 2020.