

Dominion Energy South Carolina, Inc.
5000 Dominion Boulevard, Glen Allen, VA 23060
DominionEnergy.com



August 17, 2023

10 CFR 50
10 CFR 51
10 CFR 54

United States Nuclear Regulatory Commission
Attention: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Serial No.: 23-193
NRA/DEA: R0
Docket No.: 50-395
License No.: NPF-12

DOMINION ENERGY SOUTH CAROLINA, INC.
VIRGIL C. SUMMER NUCLEAR STATION UNIT 1
APPLICATION FOR SUBSEQUENT RENEWED OPERATING LICENSE

Pursuant to 10 CFR Parts 50, 51, and 54, Dominion Energy South Carolina, Inc. (Dominion, Dominion Energy South Carolina, or DESC) is submitting this Application for Subsequent Renewed Operating License for Virgil C. Summer Nuclear Station (VCSNS) Unit 1. The existing Renewed Facility Operating License, No. NPF-12 for VCSNS Unit 1 currently expires at midnight on August 6, 2042.

Dominion Energy South Carolina seeks to extend the term of the operating license by 20 years beyond the current renewed facility operating license expiration date.

The enclosed Subsequent License Renewal Application (SLRA) contains the information required by 10 CFR Parts 54 and 51, and meets the submittal timeliness requirements of 10 CFR 54.17(c) and 10 CFR 2.109(b).

Appendix A, Table A4.0-1, of the enclosed VCSNS SLRA provides a list of commitments made in this application. This list will be updated as required throughout the SLRA review process.

As required by 10 CFR 54.21(b), each year following submittal of the subsequent license renewal application and at least 3 months before scheduled completion of the NRC review, an amendment to the subsequent renewal application will be submitted that identifies any change to the current licensing basis of the facility that materially affects the contents of the license renewal application, including the FSAR Supplement.

The Application for Subsequent Renewed Operating License for VCSNS Unit 1 consists of the following five Enclosures:

- Enclosure 1: Virgil C. Summer Nuclear Station Subsequent License Renewal Application Enclosure Summary
- Enclosure 2: Application for Withholding Proprietary Information from Public Disclosure Pursuant to 10 CFR 2.390

A094
NRR

Enclosure 3: Virgil C. Summer Nuclear Station Subsequent License Renewal Application (DVD titled, "VCSNS_SLRA")

Enclosure 4: Non-proprietary Reference Documents and a Redacted Version of a Proprietary Reference Document (Public Version)

Enclosure 5: 10 CFR 2.390 Withheld Proprietary Document

The SLRA for VCSNS (Enclosure 3), which includes the Environmental Report, is being submitted on DVD. The DVD labeled, "VCSNS_SLRA," contains the following two files (file size specified in parenthesis):

001 VCSNS_SLRA_(Public).pdf (18,789 KB)

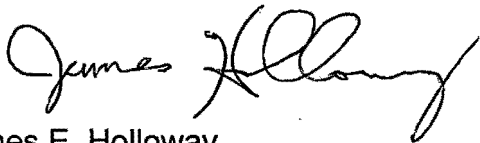
002 VCSNS_Environmental_Report_(Public).pdf (172,356 KB)

Since Enclosure 5 contains proprietary information, it is supported by an affidavit signed by the owner of the information (Enclosure 2). The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of 10 CFR 2.390.

Accordingly, it is respectfully requested that the proprietary information in Enclosure 5 be withheld from public disclosure in accordance with 10 CFR 2.390. A redacted, non-proprietary version is provided in Enclosure 4, as noted above.

If there are any questions regarding this submittal or if additional information is needed, please contact Mr. Paul Aitken at (804) 273-2818.

Sincerely,



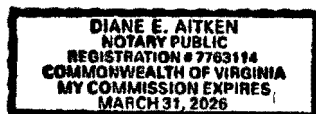
James E. Holloway
Vice President - Nuclear Engineering and Fleet Support

COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by James E. Holloway, who is Vice President - Nuclear Engineering and Fleet Support of Dominion Energy South Carolina, Inc. He has affirmed before me that he is duly authorized to execute and file the foregoing document on behalf of that Company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 17th day of August, 2023.

My Commission Expires: March 31, 2026


Notary Public

Commitments made in this letter:

The Licensee Commitments identified in Table A4.0-1 of Appendix A, FSAR Supplement, are proposed to support approval of the subsequent renewed operating licenses and may change during the NRC review period.

Enclosures:

Enclosure 1 – Virgil C. Summer Nuclear Station Unit 1 Subsequent License Renewal Application Enclosure Summary

Enclosure 2 – Application for Withholding Proprietary Information from Public Disclosure Pursuant to 10 CFR 2.390

Attachment – CAW-22-019, Affidavit for WCAP-13206-P, Revision 2

Enclosure 3 – Virgil C. Summer Nuclear Station Unit 1 Subsequent License Renewal Application (DVD titled: "VCSNS_SLRA")

Enclosure 4 – Non-proprietary Reference Documents and a Redacted Version of a Proprietary Reference Document (Public Version)

Attachment 1 – PWROG-21037-NP, Revision 2

Attachment 2 – WCAP-13207-NP, Revision 4
(Redacted version of WCAP-13206-P)

Attachment 3 – WCAP-18728-NP, Revision 5

Attachment 4 – WCAP-18754-NP, Revision 2

Enclosure 5 – 10 CFR 2.390 Withheld Proprietary Document

Attachment – WCAP-13206-P, Revision 4

cc: (with Enclosure 3 DVD only)

U.S. Nuclear Regulatory Commission, Region II
Marquis One Tower
245 Peachtree Center Avenue, NE
Suite 1200
Atlanta, Georgia 30303-1257

NRC Senior Resident Inspector
Virgil C. Summer Nuclear Station

Ms. Lauren Gibson
NRC Branch Chief
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop 11 E11
11555 Rockville Pike
Rockville, Maryland 20852-2738

Ms. Kim Conway
NRC Project Manager
U. S. Nuclear Regulatory Commission
Two White Flint North
Mail Stop A 10M
11555 Rockville Pike
Rockville, Maryland 20852-2738

Mr. Ted Smith
NRC Branch Chief
U. S. Nuclear Regulatory Commission
Two White Flint North
Mail Stop B 72M
11555 Rockville Pike
Rockville, Maryland 20852-2738

Ms. Marieliz Johnson
NRC Project Manager
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop 7 E1
11555 Rockville Pike
Rockville, Maryland 20852-2738

Mr. G. Edward Miller
NRC Senior Project Manager
U. S. Nuclear Regulatory Commission
One White Flint North
Mail Stop O-9E3
11555 Rockville Pike
Rockville, Maryland 20852-2738

Mr. Gregory Lindamood
Santee Cooper - Nuclear Coordinator
Virgil C. Summer Nuclear Station
P. O. Box 88
Jenkinsville, SC 29065

Stephen R. Pelcher
Santee Cooper - Deputy General Counsel
One Riverwood Drive
Moncks Corner, SC 29461

Elizabeth Johnson
Director, Historical Services, D-SHPO
South Carolina Department of Archives and History
8301 Parklane Road
Columbia, SC 29233

Johnathan Leader
State Archaeologist
South Carolina Institute of Archaeology and Anthropology
1321 Pendleton St, 1st Floor, Suite 16
Columbia, SC 29208

Fran Marshall
Director, Office of Environmental and Public Health
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Myra Reese
Director, Office of Environmental Affairs
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Nate Haber
Director Bureau of Water - Water Quality Division
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Lorianne Riggin
Director of Environmental Programs
South Carolina Department of Natural Resources
1000 Assembly Street
Columbia, SC 29201-3117

Duane Parrish
Director, South Carolina Parks, Recreation, and Tourism
1205 Pendleton St. Ste 248
Columbia, SC 29201

Florence Belser
Chair, Public Service Commission of South Carolina
101 Executive Center Drive #100
Columbia, SC 29210

Christy Hall
Secretary of Transportation
South Carolina Department of Transportation
955 Park Street
Columbia, SC 29201

Kim Stenson
Director, South Carolina Emergency Management Division
2779 Fish Hatchery Rd
West Columbia, SC 29172

Rhonda Thompson
Chief, Bureau of Air Quality
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Renee Shealy
Chief, Bureau of Environmental Health Services
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Henry Porter
Chief, Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Jennifer Hughes
Chief, Bureau of Water
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Elizabeth von Kolnitz
Chief, Office of Ocean & Coastal Resource Management
South Carolina Department of Health and Environmental Control
1362 McMillan Avenue
North Charleston, SC 29405

Serial No.: 23-193
Docket No.: 50-395

Enclosure 1

VIRGIL C. SUMMER (VCSNS) UNIT 1
SUBSEQUENT LICENSE RENEWAL APPLICATION
ENCLOSURE SUMMARY

Virgil C. Summer (VCSNS) Unit 1
Dominion Energy South Carolina, Inc. (DESC)

ENCLOSURE SUMMARY

Enclosure 1 – Virgil C. Summer (VCSNS) Unit 1 Subsequent License Renewal Application Enclosure Summary

Enclosure 2 – Application for Withholding Proprietary Information from Public Disclosure Pursuant to 10 CFR 2.390

Attachment: CAW-22-019– Westinghouse Affidavit for WCAP-13206-P, Revision 4, “Technical Justification for Eliminating Large Primary Loop Pipe Rupture as the Structural Design Basis for the Virgil C. Summer Nuclear Power Plant,” April 2022 (Proprietary)

Enclosure 3 – Virgil C. Summer (VCSNS) Unit 1 Subsequent License Renewal Application (DVD titled: “VCSNS_SLRA”)

Enclosure 4 – Non-proprietary Reference Documents and a Redacted Version of a Proprietary Reference Document (Public Version)

Attachment 1: PWROG-21037-NP, Revision 2, “Determination of Unirradiated RT_{NDT} and Upper-Shelf Energy Values of the V.C. Summer Nuclear Station Unit 1 Reactor Vessel Materials,” March 2023

Attachment 2: WCAP-13207-NP, Revision 4, “Technical Justification for Eliminating Large Primary Loop Pipe Rupture as the Structural Design Basis for the Virgil C. Summer Nuclear Power Plant,” April 2022 (Redacted version of WCAP-13206-P)

Attachment 3: WCAP-18728-NP, Revision 5, “V.C. Summer Nuclear Station Unit 1 Subsequent License Renewal: Evaluation of Reactor Vessel Integrity Time-Limited Aging Analyses,” June 2023

Attachment 4: WCAP-18754-NP, Revision 2, “V.C. Summer Unit 1 Subsequent License Renewal: Reactor Pressure Vessel Internals Neutron Exposure Evaluation,” August 2022

Enclosure 5 – 10 CFR 2.390 Withheld Proprietary Document

Attachment: WCAP-13206-P, Revision 4, “Technical Justification for Eliminating Large Primary Loop Pipe Rupture as the Structural Design Basis for the Virgil C. Summer Nuclear Power Plant,” April 2022

Serial No.: 23-193
Docket No.: 50-395

Enclosure 2

**APPLICATION FOR WITHHOLDING PROPRIETARY INFORMATION FROM PUBLIC
DISCLOSURE PURSUANT TO 10 CFR 2.390**

**Virgil C. Summer (VCSNS) Unit 1
Dominion Energy South Carolina, Inc. (DESC)**

Serial No.: 23-193
Docket No.: 50-395

**Enclosure 2
Attachment**

CAW-22-019
WESTINGHOUSE AFFIDAVIT FOR WCAP-13206-P, REVISION 4

**Virgil C. Summer (VCSNS) Unit 1
Dominion Energy South Carolina, Inc. (DESC)**

Westinghouse Non-Proprietary Class 3
AFFIDAVIT CAW-22-019

Page 1 of 3

Commonwealth of Pennsylvania:
County of Butler:

- (1) I, Camille Zozula, Manager, Regulatory Compliance and Corporate Licensing, have been specifically delegated and authorized to apply for withholding and execute this Affidavit on behalf of Westinghouse Electric Company LLC (Westinghouse).
- (2) I am requesting the proprietary portions of WCAP-13206 Revision 4 be withheld from public disclosure under 10 CFR 2.390.
- (3) I have personal knowledge of the criteria and procedures utilized by Westinghouse in designating information as a trade secret, privileged, or as confidential commercial or financial information.
- (4) Pursuant to 10 CFR 2.390, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
 - (i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse and is not customarily disclosed to the public.
 - (ii) The information sought to be withheld is being transmitted to the Commission in confidence and, to Westinghouse's knowledge, is not available in public sources.
 - (iii) Westinghouse notes that a showing of substantial harm is no longer an applicable criterion for analyzing whether a document should be withheld from public disclosure. Nevertheless, public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to provide similar technical evaluation justifications and licensing defense services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

- (5) Westinghouse has policies in place to identify proprietary information. Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:
- (a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.
 - (b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage (e.g., by optimization or improved marketability).
 - (c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
 - (d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.
 - (e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.
 - (f) It contains patentable ideas, for which patent protection may be desirable.
- (6) The attached documents are bracketed and marked to indicate the bases for withholding. The justification for withholding is indicated in both versions by means of lower-case letters (a) through (f) located as a superscript immediately following the brackets enclosing each item of information being identified as proprietary or in the margin opposite such information. These lower-case letters refer to the types of information Westinghouse customarily holds in confidence identified in Sections (5)(a) through (f) of this Affidavit.

Westinghouse Non-Proprietary Class 3

AFFIDAVIT CAW-22-019

Page 3 of 3

I declare that the averments of fact set forth in this Affidavit are true and correct to the best of my knowledge, information, and belief. I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 5/4/2022

A handwritten signature in cursive script, appearing to read "Camille Zozula", is written over a horizontal line.

Signed electronically by

Camille Zozula

Serial No.: 23-193
Docket No.: 50-395

Enclosure 3

VIRGIL C. SUMMER (VCSNS) UNIT 1
SUBSEQUENT LICENSE RENEWAL APPLICATION
(DVD TITLED: "VCSNS_SLRA")

Virgil C. Summer (VCSNS) Unit 1
Dominion Energy South Carolina, Inc. (DESC)