



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION II
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200
ATLANTA, GEORGIA 30303-1200

November 14, 2022

Mr. Daniel G. Stoddard
Senior Vice President and Chief Nuclear Officer
Dominion Energy
Innsbrook Technical Center
5000 Dominion Blvd., Floor: IN-2SW
Glen Allen, VA 23060

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION – TRIENNIAL INSPECTION OF
EVALUATION OF CHANGES, TESTS AND EXPERIMENTS BASELINE
INSPECTION REPORT 05000395/2022012

Dear Mr. Stoddard:

On October 27, 2022, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Virgil C. Summer Nuclear Station and discussed the results of this inspection with Mr. George Lippard and other members of your staff. The results of this inspection are documented in the enclosed report.

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 <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,

A handwritten signature in black ink, appearing to read "JB", written over a horizontal line.

Signed by Baptist, James
on 11/14/22

James B. Baptist, Chief
Engineering Branch 1
Division of Reactor Safety

Docket No. 05000395
License No. NPF-12

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION – TRIENNIAL INSPECTION OF EVALUATION OF CHANGES, TESTS AND EXPERIMENTS BASELINE INSPECTION REPORT 05000395/2022012 dated November 14, 2022

DISTRIBUTION:

- B. Bishop, Senior Project Engineer
- B. Bowker, Reactor Inspector
- P. Carman, Senior Reactor Inspector
- D. Parent, Project Engineer
- J. Baptist
- M. Kowal
- S.Price
- M.Toth
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OFFICE	RII/DRS	RII/DRS	RII/DRS	RII/DRS	
NAME	J. Parent	B. Bowker	B. Bishop	J. Baptist	
DATE	11/10/2022	11/10/2022	11/10/2022	11/14/2022	

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

Docket Number: 05000395

License Number: NPF-12

Report Number: 05000395/2022012

Enterprise Identifier: I-2022-012-0012

Licensee: Dominion Energy

Facility: Virgil C. Summer Nuclear Station

Location: Jenkinsville, SC

Inspection Dates: October 24, 2022 to October 27, 2022

Inspectors: B. Bishop, Senior Project Engineer
B. Bowker, Reactor Inspector
P. Carman, Senior Reactor Inspector
D. Parent, Project Engineer

Approved By: James B. Baptist, Chief
Engineering Branch 1
Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a triennial inspection of evaluation of changes, tests and experiments baseline inspection at Virgil C. Summer Nuclear Station, 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

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

Additional Tracking Items

None.

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 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

71111.17T - Evaluations of Changes, Tests, and Experiments

Sample Selection (IP Section 02.01) (20 Samples)

The inspectors reviewed the following evaluations, screenings, and/or applicability determinations for 10 CFR 50.59 from October 1, 2019 until July 8, 2022.

- (1) 50.59 Evaluation: ECR 50585W, Replacement of Chiller B, 8/15/2018
- (2) 50.59 Evaluation: ECR 50799L, Reactor Coolant Pump Seal Replacement, 11/11/21
- (3) 50.59 Evaluation: ECR 72587, Penetration Area Exhaust Damper Control from Automatic to Manual, Rev. 7
- (4) 50.59 Evaluation: ECR 72616, FSAR Chapter 15 Analyses with Updated RCS Initial Condition Uncertainties, Rev. 0
- (5) 50.59 Screening: ECR 50544, XIT5936 and XIT5937 Replacement, Rev. 7
- (6) 50.59 Screening: ECR 50884H, Open Phase Condition (OPC) Strategy for the GDC-17 Offsite Power Sources, 2/20/2020
- (7) 50.59 Screening: ECR 50912A, Modification to Platform SWP-1, 11/26/2018
- (8) 50.59 Screening: ECR 50933G, CC HX SW Return Throttle Valve Installation - B Train, 12/18/2019
- (9) 50.59 Screening: ECR 50940, Spent Fuel Cooling Pump Alternate Power, 10/26/2020
- (10) 50.59 Screening: ECR 50941A, 'B' Core Subcooling Margin Monitor Replacement, Rev. 1
- (11) 50.59 Screening: ECR 72124, Boric Acid Tank Level Transmitter Span Change, Rev. 7
- (12) 50.59 Screening: ECR 72321, Development of IFS07100A/B Uncertainty Calculations, Rev. 16
- (13) 50.59 Screening: ECR 72546, Replacement of Obsolete Allied MSIV Solenoids, 3/24/2020
- (14) 50.59 Screening: ECR 72611, Update of CN-SCS-04-75, Rev. 0
- (15) 50.59 Screening: ECR 72629, ILS03920A Setpoint Calibration Tolerance Change, Rev. 8
- (16) 50.59 Screening: ECR 72656, Setpoint Change for Steam and Feedwater Flows Associated with ETBT72436, 2/28/2020
- (17) 50.59 Screening: ECR 72692, Seismic Qualification of Replacement Microswitch CMC and PT Switches, Rev. 16
- (18) 50.59 Screening: ECR 72763, Quantity of Scaffold Stored in Containment, Rev. 0

- (19) 50.59 Screening: VC-20-00003, Deaerator Storage Tank Level Switch Upgrade, Rev. 4
- (20) 50.59 Applicability Determination: ECR 72750, Time to Boil Enhancements, Rev. 0

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

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

On October 27, 2022, the inspectors presented the triennial inspection of evaluation of changes, tests and experiments baseline inspection results to Mr. George Lippard and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.17T	Calculations	DC00020-002	Passive Heat Sink Models	Rev. 3
		DC00020-198	Heat-Up Model For Water in the SFP, Reactor Cavity, and the Reactor Vessel	Rev. 5
		DC0316G-023	Seismic Design of Scaffolding Pole Storage Rack at Reactor Building 436'	Rev. 3
		DC0396H-049	Develop RRS for Seismic Testing of Replacement Microswitch CMC and PT Switches	Rev. 0
		DC0396H-051	Seismic Qualification Of Replacement CMC, Selector, And Pushbutton Switches	Rev. 0
		DC09320-029	Boric Acid Tank Levels Scaling (ILT00106, ILT00108, ILT00161, IL T00161A, ILT00163, IL T00163A)	Rev. 5
		DC09610-068	Booster Pumps Component Cooling Water Flow Switch (IFS07100A and IFS07100B) Uncertainties	Rev. 5
		DC09620-004	Tech Spec Volumes for RWST, Condensate Storage Tank & Boric Acid Tank	Rev. 5
		DC09620-015	Boric Acid Tank Level Instruments (ILT00106, ILT00108, ILT00161, ILT00161A, ILT00163)	Rev. 5
		DC09670-010	RCP Undervoltage and Underfrequency Uncertainty	Rev. 1
	Calibration Records	1603424	ILS03920A, Instrument Calibration	04/19/2017
		1603425	ILS 03920B, Instrument Calibration	04/18/2017
		1603426	ILS 03920C, Instrument Calibration	04/19/2017
		1710528	ILS 03920A, Instrument Calibration	10/16/2018
		1710529	ILS 03920B, Instrument Calibration	10/16/2018
		1710530	ILS 03920C, Instrument Calibration	10/16/2018
	Corrective Action Documents	CR 18-02706	Pinhole leak below field weld (FW-1), downstream of XVB03123B.	7/2/18
		CR 18-02797	NRC identified a small pinhole leak (~30 drops/min) in the pipe tee approximately 1 foot downstream of the weld below XVB03123A-SW	7/10/18
		CR 18-02857	Pinhole leak in the Service Water System downstream of XVB03123A-SW	7/12/18
		CR 19-01330	Pin hole leak from the service water piping downstream of	4/9/19

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
			XVB03123B-SW, CC Heat Exc		
		CR 20-02300	Reactor engineering and supplemental staff held an RF-25 outage critique	6/30/2020	
	Corrective Action Documents Resulting from Inspection		CR1211170	Maximo contains incorrect information for ILS03920A	10/25/2022
			CR1211309	NRC Identified: Brass Tube Fitting in Boric Acid Tank Room	10/26/2022
			CR1211313	Dry chromate deposit discovered on instrument manifold valve for IFS07100A	10/26/2022
			CR1211389	Flexible conduit routed to ILS03920B is not clamped in the flexible elbow adapter	10/27/2022
	Drawings		1MS-54-660	Piping and Instrumentation Drawing Train B Tag Number: XHX0001B, XHX0001C; Sheet Number 1B	Rev. 0A
			1MS-54-660	Piping and Instrumentation Drawing Train B Tag Number: XHX0001B, XHX0001C; Sheet Number 2B	Rev. 0A
			B-814-551	I&C Instrument Diagram Auxiliary Building Roof Elevation 511' East and West Penetration Access Areas HVAC Flow Transmitter FT-9812	Rev. 0
			D-302-841	FSAR Figure 9.4-22	Rev. 38
			E-206-005	Simplified Plan Electrical Distribution	Rev. 33
			E-206-052	Electrical AC Low Voltage Power Panel	Rev. 6
	Engineering Evaluations		EIR 82607	M&TE Guidance for RCP UF/UV and 7.2kV DV/LOV Surveillance Test Procedures	11/20/2019
	Miscellaneous		1MS-94B-1879	GUTOR 80kVA UPS	Rev. 5
			ICP-240.033	Setpoint Data Sheet ILS03920A	10/18/2022
			ICP-240.033	Setpoint Data Sheet ILS03920B	10/18/2022
			ICP-240.033	Setpoint Data Sheet ILS03920C	10/18/2022
	Procedures		ARP-016-XCP-6210-LCB3	HVAC Panel	Rev. 2
			SAP-0107	10CFR50.59 and 10CFR72.48 Review Process	Rev. 8
	Work Orders		2002904	ILT00106 Instrument Loop Calibration	01/27/2021
			2002905	ILT00108 Instrument Loop Calibration	02/10/2021
			2002906	ILT00163 Instrument Loop Calibration	02/15/2021
			2005723	Inverter XIT5936 Post Modification Testing	09/16/2020
			2007392	Spent Fuel Cooling Pump Alternate Power Supply Testing	09/08/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		2110313	IFS07100A, Flow Switch Calibration	10/20/2021
		2110314	IFS07100B, Flow Switch Calibration	10/20/2021
		88101027933	ILT00161 Instrument Loop Calibration	05/26/2022
		88101039862	ILT00163A Instrument Loop Calibration	07/05/2022
		88101042279	ILT00108 Instrument Loop Calibration	05/26/2022
		WO 1904084-001	Post Maintenance Testing - STP0130.004D, MS Isolation Valve Full Stroke Testing	4/11/2020