



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

October 9, 2018

Mr. Darin Myers  
Vice President  
Southern Nuclear Operating Company, Inc.  
Vogtle Electric Generating Plant  
7821 River Road  
Waynesboro, GA 30830

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT - NRC EVALUATION OF CHANGES,  
TESTS, AND EXPERIMENTS REPORT NUMBER 05000424/2018011 AND  
05000425/2018011

Dear Mr. Myers:

On August 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Vogtle Electric Generating Plant, Units 1 and 2, and the NRC inspectors discussed the results of this inspection with Mr. Daniel Komm and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspectors did not identify any findings or violations.

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 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

*/RA/*

Marvin D. Sykes, Chief  
Engineering Branch 1  
Division of Reactor Safety

Docket Nos. 50-424, 50-425  
License Nos. NPF-68 and NPF-81

Enclosure:  
Inspection Report 05000424/2018011  
and 05000425/2018011

cc: Distribution via ListServ

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT - NRC EVALUATION OF CHANGES, TESTS, AND EXPERIMENTS REPORT NUMBER 05000424/2018011 AND 05000425/2018011

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PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE       NON-SENSITIVE  
 ADAMS:  Yes      ACCESSION NUMBER: \_\_\_\_\_       SUNSI REVIEW COMPLETE       FORM 665 ATTACHED

OFFICE	RII:DRS	RII:DRS	RII:DRS	RII:DRS	RII:DRS		
SIGNATURE	<b>MCM4 EMAIL</b>	<b>RNP1 EMAIL</b>	<b>TXS2 EMAIL</b>	<b>BJD4 EMAIL</b>	<b>MDS</b>		
NAME	M. Magyar	R. Patterson	T. Su	B. Davis	M. Sykes		
DATE	9/26/2018	9/28/2018	9/7/2018	10/ 4 /2018	10/9/2018		
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY      DOCUMENT NAME: S:\DRS NEWENG BRANCH 1\BRANCH INSPECTION FILES\2017-2018-2019 CYCLE INSPECTION FOLDER FOR ALL SITES\50.59 INSPECTIONS\VOGTLE\VOGTLE 50.59 IR 2018011.DOCX

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

Docket Numbers: 050000424, 05000425

License Numbers: NPF-68 and NPF-81

Report Numbers: 05000424/2018011, 05000425/2018011

Enterprise Identifier: I-2018-011-0017

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Vogtle Electric Generating Plant, Units 1 and 2

Location: Waynesboro, GA 30830

Inspection Dates: August 27-30, 2018

Inspectors: Bradley Davis, Reactor Inspector (Team Lead)  
Robert Patterson, Reactor Inspector  
Teh-Chiun, Su, Reactor Inspector  
Mike Magyar, Trainee

Approved By: M. Sykes, Chief  
Engineering Branch 1  
Division of Reactor Safety

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring Southern Nuclear Operating Company's performance by conducting a 10 CFR 50.59 inspection at Vogtle Electric Generating Plant, Units 1 and 2, 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.

No findings or violations were identified.

## INSPECTION SCOPE

Inspections were conducted using the appropriate portions of the inspection procedure (IP) 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, conducted walkdowns 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 (20 Samples)

The inspectors evaluated the following samples for compliance with Title 10, Code of Federal Regulations (CFR) 50.59, "Changes, tests, and experiments," from June 4, 2018, to June 8, 2018:

#### 10 CFR 50.59 Evaluations - 71111.17T

1. SNC517148, Unit 1 Reactor Coolant Pump (RCP) Seal Injection Filter
2. SNC799988, Refueling Water Storage Tank (RWST) Switchover Change for GSI-191
3. SNC121433, Digital – Solid State Protection System (SSPS) 4 Card Types and Power Supplies
4. SNC130542, Digital – 1805-S3B06 2R14 480V Breakers and 4160V/480V Transformer Replacement
5. SNC543984 Digital Replacement of Obsolete Recorder for Waste Gas System
6. SNC466754, Digital – Design Change Package (DCP) High Efficiency Purge Units
7. SNC769945, Let Down Valve Set Point Change

#### 10 CFR 50.59 Screening/Applicability Determinations - 71111.17T

1. SNC803749, Reactor Coolant Filter Media Grade 0.05 Micron Addition
2. SNC606661, Limited Design Change Package (LDCP) for Retiring in Place Unit 2 Core Exit Thermocouples (CETC) in 2R17
3. SNC131571, Battery Charger Replacement (2AD1CA/B, 2CDICA/B)

4. SNC843790, Individual Cell Equalizer (ICE) Device
5. SNC850555, Design Equivalent Change Package (DECP) for Replacement of the Unit 1 Sequencer Flat Panel Display
6. SNC867855, U1 Control Room HVAC Heater Control Panel
7. SNC129930, Accumulator Vent Valve
8. SNC331604, Unit 1 Train A NSCW Seismic Restraints
9. SNC122235, "1A" Anti-Rotation Device for NSCW Fans, A-Train
10. SNC121086, Unit 1 Design Change Package (DCP) Residual Heat Removal (RHR) Bypass Line Mod 1R17
11. SNC896516, Pressurizer Spray Valve Limit Switch Change to Non-Safety
12. Procedure PAF-85050-C-V14.0-AD, Procedure Change 85050-C
13. Procedure PAF-84400-1V7.1-AD, Procedure Change 84400-1

## **EXIT MEETINGS AND DEBRIEFS**

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

On August 30, 2018, the inspectors presented the inspection results to Mr. Daniel Komm and other members of the licensee staff.

## **DOCUMENTS REVIEWED**

### Procedures

- 10007-C, Reset of Lockout Relays, Breakers, Thermal Overload and Relay Target, Rev. 9
- 18000-C, Pressurizer Spray, Safety, or Relief Valve Malfunction, Ver. 6.0
- 19013-1, ES-1.3 Transfer to Cold Leg Recirculation, Ver. 2
- 19013-2, ES-1.3 Transfer to Cold Leg Recirculation, Ver. 2
- 19013-C, ES-1.3 Transfer to Cold Leg Recirculation, Ver. 30
- 25024-C, Pipe Supports, Ver. 12.0
- 28480-C, 480V EMAX Breaker Maintenance, Ver. 32
- 81010-C, Reviewing and Reporting Potential Defects and Noncompliance, Rev. 9.0
- 84400-1, Containment Integrated Leak Rate Test, Ver. 7.0
- 84400-1, Containment Integrated Leak Rate Test, Ver. 7.1
- NMP-AD-008, Applicability Determinations, Ver. 20.0
- NMP-AD-008, Applicability Determinations, Ver. 20.0
- NMP-AD-010, 10 CFR 50.59 Screenings and Evaluations, Ver. 15.1
- NMP-AD-010, 10CFR 50.59 Screenings and Evaluations, Ver. 15.1
- NMP-AP-001-001, Development and Control of Southern Nuclear Procedures, Ver. 18.0
- NMP-AP-001-003, Review and Approval of Site Procedures, Ver. 12.0
- NMP-AP-001-004, Review and Approval of Operational Readiness Procedures, Ver. 7.1
- NMP-AP-001-004, Review and Approval of Operational Readiness Procedures, Ver. 7.1
- NMP-OS-014-003, VNP Time Critical Operator Action Program, Ver. 3.1

### Drawings

- 1061091101M002, RHR Bypass Line Mod Drawing, Ver. 1
- 1061091101M003, RHR Bypass Line Mod Drawing, Ver. 1
- 1081571301M002, NSC Tower Typical Cross Section, Ver. 1
- 1081571301M003, NSC Tower Typical Cross Section, Ver. 1
- 1K3-1208-149-01, CVCS Fabrication Isometric, Ver.18.0
- 1K5-1202-023-01, NSCW System Support Fabrication Isometric, Ver. 19.0

1K5-1202-031-01, NSCW System Support Fabrication Isometric, Ver. 17.0  
 1K5-1202-033-01, NSCW System Support Fabrication Isometric, Ver. 17.0  
 1X4DB116-1, CVCS System Flow Diagram, Ver. 53.0  
 1X4DB122, P&ID for Residual Heat Removal System No. 1205, Ver. 52  
 1X4DB122, RHR System Flow Diagram, Ver. 52.0  
 1X4DB133-1, NSCW System Flow Diagram, Ver. 55  
 1X4DB133-2, NSCW System Flow Diagram, Ver. 61  
 1X4DB148, Cartridge and Backflushable Filter System, Ver. 49.0  
 2X4DB120, P&I Diagram Safety Injection System, Ver. 29.0  
 2X6AA06-00509, Air Operated Control Valve, Ver. 1.0  
 AX2008A049, Auxiliary Building Anchor for Filter Drawing, Ver. 21.0  
 AX4AD02-00173, NSCW Anti-Reversing Device, Ver. 2.0  
 AX4AN06-20014-2, Cartridge Filter 6.0 micron, Ver. 1.0  
 AX4AN06-20015-2, Cartridge Filter 2.0 micron, Ver. 1.0  
 AX4AN06-20016-2, Cartridge Filter 0.45 micron, Ver. 1.0  
 AX4AN06-20017-2, Cartridge Filter 0.2 micron, Ver. 1.0  
 AX4AN06-40000, Cartridge Filter 0.05 micron, Ver. 1.0  
 AX4AN06A-00015, Seal Injection Cartridge Filter, Ver. 1.0  
 CX5DT101-45, Instrument Set Point List, Ver. 6.0  
 D104608C, Cartridge Filter, Rev. 1

Calculations

11202023H007, Pipe Support Evaluation for Support V1-1202-023-H007, Ver. 2.0  
 11202023H008, Pipe Support Evaluation for Support V1-1202-023-H007, Ver. 3.0  
 AX4AJ04-20017, Fault/Failure Analysis Trane Purifier Purge Model, Ver. 1.0  
 AX4AJ04-20018, Seismic Analysis Trane Purifier Purge Unit, Ver. 1.0  
 AX4AJ04-20022, Fault/Failure Mode Test Procedure for Trane Purge Unit, Ver. 1.0  
 AX4AN06A-00002, ASME Design Calculation for Seal Injection Filter Cartridges, Ver. 1.0  
 DOEJ-VD1061091101-C001, Seismic Evaluation for RHR Bypass Lines, Ver. 1.0  
 DOEJ-VDSNC517148-C001, CVCS Steel Floor Plug Seismic Evaluation, Ver. 1.0  
 MC-V-16-0062, Refueling Water Storage Tank (RWST) Volume Distribution and Sizing, Ver. 1.0  
 MC-V-16-0094, Core Cooling Pumps Suction Line Losses and NPSH, Ver. 1.0  
 MC-V-16-0149, ECCS Summary, Ver. 1.0  
 X4C1204S07, ECCS Reference Summary, Ver. 3.0  
 X4C1204T03, Refueling Water Storage Tank (RWST) Volume Distribution and Sizing, Ver. 6.0  
 X4C1204V01, Emergency Core Cooling Pumps Suction Line Losses and NPSH, Ver. 8.0  
 X4C1592S00F1, FMEA for High Efficiency Purge Units, Rev. 3

CRs (Condition Reports)

2008106489	552952
2006108590	665441

Design Basis Documents

DC-1010, Project Classification List – Interdiscipline, Ver. 29  
 DC-1201, Reactor Coolant System, Rev. 5  
 DC-1208, Chemical and Volume Control System (CVCS) and Boron Recycle System (BRS),  
 Ver. 11  
 DC-2402, Auxiliary Gas System – Nitrogen, Rev. 5  
 SN9604-002, Electromagnetic Interference (EMI) Qualification Requirements for Southern  
 Nuclear Power Plant Equipment for Vogtle Nuclear Plant, Ver. 2.0

X3AC02B, Southern Nuclear, Low Voltage Power Circuit Breakers for Vogtle Electric  
Generating Plant – Unit 1 & 2, Ver. 3.0

Work Orders

418749	434679	434869
408203	434680	446256
434621	434865	457221
434671	434868	1071817706
107181771	769945	896516

Miscellaneous Documents

1X6AA00-00444 associated with SNC799988M004, Safety Injection System Description, Ver. 7.0  
1X6AA00-00451 associated with SNC799988M005, Containment Spray System Description, Ver. 5.0  
2X6AA00-00444 associated with SNC799988M006, Safety Injection System Description, Ver. 7.0  
2X6AA00-00451 associated with SNC799988M007, Containment Spray System Description, Ver. 4.0  
7063840/002, Purchase Order Change for EMAX Breakers, Dated 09/20/2006  
70640900000, Purchase Order for 480 VAC Replacement Switchgear Breaker IAW Specification X3AC02B  
AX3AC02B, Vogtle Electric Generating Plant – Unit 1 & 2, ABB EMAX Breaker PR112/P-A[RGE] Trip Unit Instruction Manual, Ver. 1.0  
AX3AC02B-20030, Vogtle Unit ½ Engineering Evaluation for PR112/P-A [PGE] Trip Unit Firmware Change to Version 15.21, Ver. 1.0  
AX4AD02-00128, NSWW Cooling Tower Manual Update, Ver. 1  
CX5DT1102-01, EOP Setpoint Document, Ver. 8.0  
DOEJ-FX927614-J001, Electromagnetic Interference/Radio Frequency Interference Evaluation for the Solid State Protection System Power Supplies, Ver. 1.0  
DOEJ-VD2060337001-J001, EMI/RFI Evaluation for N010 480V Breaker & 4160/480V Transformer Replacement, Ver. 1.0  
GP-18692, Westinghouse Transmittal of RHR Bypass Line Evaluation, 08/26/2010  
NMP-ES-084-001-F04, Design Change/Modification - Impact Review Form, Ver. 3.1  
NMP-TR-215-F01, Training Attendance Sheet, Ver. 2.1  
ORDTKTNO-100330627, VNP1&2 - SNC Course Completion Record, 12/15/16  
PE-217-640, Installation Instructions for Anvil Sway Struts, Rev. 5  
RER 1060922901 VPS Evaluation for High Axial Vibration, 06/26/2006  
SECL No. 86-062, Westinghouse Safety Evaluation Check List for Vogtle Electric Generating Plant Unit 1 for Capping of a Leaking Core Exit Thermocouple, Rev. 1  
V-RQ-PP-63292, Current Events Segment 20166, Ver. 1.0  
X4AJ04, QualTech Dedication Report