



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION II
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200
ATLANTA, GEORGIA 30303-1200

February 5, 2024

Jamie Coleman
Regulatory Affairs Director
Southern Nuclear Operating Co., Inc.
3535 Colonnade Parkway, N 274 EC
Birmingham, AL 35243

**SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNIT 4 - NRC INITIAL TEST
PROGRAM AND OPERATIONAL PROGRAMS INTEGRATED INSPECTION
REPORT 05200026/2023009**

Dear Jamie Coleman:


On December 31, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Vogtle Electric Generating Plant, Unit 4. On January 23, 2024, the NRC inspectors discussed the results of this inspection with Mr. Patrick Martino, Vogtle Electric Generating Plant (VEGP) Units 3 & 4 Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

The inspection examined a sample of construction activities conducted under your Combined License (COL) as it relates to safety and compliance with the Commission's rules and regulations and with the conditions of these documents. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any), will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). Should you have any questions concerning this letter, please contact us.

Sincerely,

 Signed by Davis, Bradley
on 02/05/24

Bradley J. Davis, Chief
Construction Inspection Branch 2
Division of Construction Oversight

Docket Nos.: 5200026
License Nos: NPF-92

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNIT 4 - NRC INITIAL TEST PROGRAM AND OPERATIONAL PROGRAMS INTEGRATED INSPECTION REPORT 05200026/2023009 DATED FEBRUARY 5, 2024

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 J. Eargle, RII DCO

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DATE	2/1/2024	2/5/2024	2/5/2024		

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**U.S. NUCLEAR REGULATORY COMMISSION
Region II**

Docket Numbers: 05200026

License Numbers: NPF-92

Report Numbers: 05200026/2023009

Licensee: Southern Nuclear Operating Company, Inc.

Enterprise Identifier: I-2023-009-0000

Facility: Vogtle Unit 4 Combined License

Location: Waynesboro, GA

Inspection Dates: October 1, 2023, through December 31, 2023

Inspectors: J. Eargle, Senior Resident Inspector, Division of Construction Oversight (DCO)
J. Parent, Resident Inspector, DCO
B. Griman, Resident Inspector, DCO
S. Egli, Sr. Construction Inspector, DCO
J. Montgomery, Senior Reactor Inspector, Division of Reactor Safety (DRS)

Approved by: Bradley J. Davis, Chief
Construction Inspection Branch 2
Division of Construction Oversight

Enclosure

SUMMARY OF FINDINGS

Inspection Report (IR) 05200026/2023009; October 1, 2023 – December 31, 2023; Vogtle Unit 4 Combined License, initial test program and operational programs integrated inspection report.

This report covers a three-month period of announced inspections of startup testing and operational programs by resident and regional inspectors. The significance of most findings is indicated by their color (Green, White, Yellow, or Red), using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process." Cross-cutting aspects are determined using IMC 0310, "Aspects Withing the Cross-Cutting Areas." All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy. The NRC's program for oversight of AP1000 start-up activities is described in IMC 2514, "AP1000 Reactor Inspection Program – Startup Testing Phase."

A. NRC-Identified and Self Revealed Findings

None

B. Licensee-Identified Violations

None

REPORT DETAILS

Summary of Plant Construction Status

During this report period for Unit 4, the licensee performed pre-operational and component tests of various structures, systems, and components and their control systems, e.g., plant control system (PLS), reactor coolant system (RCS), and the containment air filtration system (VFS). The licensee completed surveillances of safety-related systems to support mode changes and prepared the secondary side of the plant to support startup testing and future full power operations. Jurisdictional control for 19 plant systems was transition to plant operations.

3. OPERATIONAL READINESS

Cornerstones: Operational Programs

IMC 2504, Construction Inspection Program – Inspection of Construction and Operational Programs

3P01 Fire Protection Program (FPP)

- 64705-02.01 – FPP Review
- 64705-02.02 – Problem Identification & Resolution

a. Inspection Scope

The inspectors reviewed aspects of the licensee's FPP to determine if reasonable assurance existed at the time of the inspection to verify that the reviewed aspects of the program met the requirements of 10 CFR 50.48, Fire Protection. The inspectors reviewed the site's FPP document, fire hazards analysis (FHA), and fleet and site-specific procedures to determine if the requirements of BTP CMEB 9.5-1 were incorporated into the FPP.

Specifically, the inspectors reviewed various aspects of the FPP to determine that:

- Fire protection features in place to protect safe shutdown (SSD) capability satisfied the license specific separation requirements
- Adequate operational procedures for SSD of the plant due to fire were in place
- The licensee's alternative shutdown methodology properly identified the systems and components necessary to achieve and maintain SSD conditions for each fire area, room, or zone selected for review
- Personnel required to place and maintain the plant in hot shutdown following a fire using the alternative/dedicated shutdown system were properly trained and available at all times among the onsite shift staff, exclusive of fire brigade; adequate procedures for the use of the alternative shutdown system were in place; and that the licensee conducts periodic operational tests of the alternative shutdown transfer

capability and that the tests are adequate to prove the functionality of the alternative shutdown capability

- Communications equipment used by the fire brigade is functional
- Manual suppression equipment to be used by the fire brigade is available and functional
- The pre-operational and startup testing program for fire protection (FP) systems and components provide assurance that the equipment is ready for plant commercial operation
- The Fire Hazards Analysis properly identifies the fire hazards, quantifies combustibles, and identifies ignition sources
- The site's FPP contains requirements to perform periodic surveillances on FP and post-fire SSD equipment, systems, or features, and the surveillances contain adequate requirements to verify functionality of FP structures, systems, and components (SSCs)
- The site's FPP requires the implementation of compensatory measures for FP SSCs that are considered nonfunctional
- Circuit breaker coordination and fuse protection have been properly analyzed and are capable of protecting the power source of the designated redundant or alternative SSD system/equipment
- The staffing levels and qualifications are appropriate and in accordance with the approved FPP
- The fire brigade is appropriately equipped and that the program is adequate to ensure that the fire brigade equipment is adequately tested and maintained.
- Firefighting pre-plans identify the plant areas containing SSCs important to safety and the locations and layout of equipment, and that the pre-fire planning identifies hazards as necessary
- Firefighting pre-plans prepares the fire brigade members to overcome potential security related access problems and health physics related issues affecting access for fires in radiologically controlled/high radiation areas.

b. Findings

No findings were identified.

4. OTHER INSPECTION RESULTS

4OA6 Meetings, Including Exit

Exit Meeting

On January 23, 2024, the inspectors presented the inspection results to Mr. P. Martino, VEGP 3 & 4 Site Vice President, and other licensee and contractor staff members. Proprietary information was reviewed during the inspection period but was not included in the inspection report.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee and Contractor Personnel

G. Chick, Executive Vice President, Vogtle 3&4
P. Martino, Vice President, Nuclear Plant Site
S. Stimac, Plant Manager Transition, Vogtle 3&4
G. Koucheravy, Director, Project Management, Vogtle 3&4
A. Nix, ITP Director
E. Loehlein, Director, Operations Nuclear
S. Leighty, Manager, Site Regulatory Affairs
W. Garrett, Licensing Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Item Number</u>	<u>Type</u>	<u>Status</u>	<u>Description</u>
None			

LIST OF DOCUMENTS REVIEWED

3. OPERATIONAL READINESS

Section 3P01

CR 11020498, NRC Identified: Unit 4 Fire Brigade locker missing flashlights
CR 11020564, 3/4-AOP-902 do not include the latest notes from UFSAR
CR 11020607, Discrepancy in WWS-MT-05 sump volume in PRA calculation
SV0-PRA-GSC-325
CR 11020342, Procedure update: 4-AOP-902 refences (SIC) to U3 pre-fire plans instead of U4
Numbers
CR 11018942, Multiple fire extinguishers missing from U4 containment during RCP work
CR 11021012, Portable radio repeaters not protected from exposure fire
CR 11020272, Security door does not shut without assistance

LIST OF ACRONYMS

COL	Combined License
DCO	Division of Construction Oversight
DRS	Division of Reactor Safety
FHA	Fire Hazards Analysis
FP	Fire Protection
FPP	Fire Protection Program
IMC	Inspection Manual Chapter
IR	inspection report
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
SSC	Systems Structures and Components
SSD	Safe Shutdown
VEGP	Vogtle Electric Generating Plant