



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

September 13, 2023

Jamie Coleman  
Regulatory Affairs Director  
Southern Nuclear Operating Company, Inc.  
3535 Colonnade Parkway  
Birmingham, AL 35243

**SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNIT 3 – INITIAL TEST PROGRAM  
AND OPERATIONAL PROGRAMS INSPECTION REPORT 05200025/2023013**

Dear Jamie Coleman:

On July 30, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Vogtle Electric Generating Plant, Unit 3. The enclosed inspection report documents the inspection results, which the inspectors discussed on August 22, 2023, with Steven Leighty, Vogtle Units 3 & 4 Licensing Manager, and other members of your staff.

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.

Additionally, this inspection report documents the completion of the operational program inspections described in Inspection Manual Chapter (IMC) 2504, "Construction Inspection Program – Inspection of Construction and Operational Programs" and the completion of the start-up testing program described in IMC 2514, "AP1000 Reactor Inspection Program – Startup Testing Phase."

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 09/13/23

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

Docket Nos.: 5200025

License Nos: NPF-91

Enclosure:

As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNIT 3 – INITIAL TEST PROGRAM  
AND OPERATIONAL PROGRAMS INSPECTION REPORT 05200025/2023013  
DATED SEPTEMBER 13, 2023

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

Docket Numbers: 5200025

License Numbers: NPF-91

Report Numbers: 05200025/2023013

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Vogtle Unit 3 Combined License

Location: Waynesboro, GA

Inspection Dates: July 1, 2023, through July 30, 2023

Inspectors: J. Eargle, Senior Resident Inspector - Testing, Division of  
Construction Oversight (DCO)  
S. Egli, Senior Construction Inspector, DCO  
J. England, Senior Construction Inspector, DCO  
B. Kemker, Senior Resident Inspector, DCO  
M. Magyar, Construction Inspector, DRS  
J. Parent, Resident Inspector, DCO

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

Enclosure

## **SUMMARY OF FINDINGS**

Inspection Report (IR) 05200025/2023013; July 1 – July 30, 2023; Vogtle Unit 3 Combined License, initial test program and operational programs integrated inspection report.

This report covers a thirty-day 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 3, the licensee completed all remaining startup tests as part of the initial test program. These tests were part of the power ascension testing at 100% power. These tests included loss of offsite power and 100% load rejection.

This concluded the initial test program and operational programs as the licensee transitioned to commercial operations on July 31, 2023.

### **3. OPERATIONAL READINESS**

#### **Cornerstones: Operational Programs**

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

##### 3P01 Initial Test Program (Startup)

The inspectors used the following NRC inspection procedure (IP)/section to perform this inspection:

- IP 72304 Attachment 23 – 100-Percent Load Rejection

##### a. Inspection Scope

The inspectors used appropriate portions of the IP to observe the licensee's performance of the following procedure to verify if Unit 3's automatic control systems had the ability to sustain the plant in island mode following a full load rejection. The inspectors observed the conduct of this procedure to verify if they satisfied the applicable quality and technical requirements of the UFSAR and the Technical Specifications.

- 3-GEN-ITPS-633, 100% Load Rejection Startup Test Procedure, Version 5.0 (TPC 1.0)

The inspectors used appropriate portions of the IP to review the licensee's completed work package to verify if Unit 3's automatic control systems had the ability to sustain the plant in island mode following a full load rejection. The inspectors reviewed the test results to verify if they satisfied the applicable quality and technical requirements of the UFSAR and the Technical Specifications.

- WO SNC1116345, ITP perform 3-GEN-ITPS-633 100% Load Rejection Startup Test, Completed 7/31/2023

b. Findings

No findings were identified.

3P02 Initial Test Program (Startup)

The inspectors used the following NRC IP/section to perform this inspection:

- Inspection Procedure (IP) 72304 Attachment 11 – Loss of Offsite Power

a. Inspection Scope

The inspectors used appropriate portions of the IP to observe the licensee's performance of the following procedure to verify if Unit 3's automatic control systems had the ability to sustain a manual main generator trip with no offsite power available, and to bring the plant to stable conditions following the transient. The inspectors observed the conduct of this procedure to verify if they satisfied the applicable quality and technical requirements of the UFSAR and the Technical Specifications.

- 3-GEN-ITPS-638, Loss of Offsite Power Startup Test Procedure, Version 7.0

The inspectors used appropriate portions of the IP to review the licensee's completed work package to verify if Unit 3's automatic control systems had the ability to sustain a manual main generator trip with no offsite power available, and to bring the plant to stable conditions following the transient. The inspectors reviewed the test results to verify if they satisfied the applicable quality and technical requirements of the UFSAR and the Technical Specifications.

- WO SNC1116324, 3-GEN-ITPS-638 Perform Loss of Offsite Power Startup Test, Completed 7/31/2023

b. Findings

No findings were identified.

3P03 Initial Test Program (Startup)

The inspectors used the following NRC IP/section to perform this inspection:

- Inspection Procedure (IP) 72304 Attachment 14 – Plant Trip from 100% Power

a. Inspection Scope

The inspectors used appropriate portions of the IP to review the licensee's completed work package to verify if Unit 3's automatic control systems had the ability to sustain a manual main generator trip from 100% rated thermal power and to bring the plant to stable conditions following the transient, in addition to assessing the dynamic response of the plant when the turbine was subjected to its maximum overspeed

condition. The inspectors reviewed the test results to verify if they satisfied the applicable quality and technical requirements of the UFSAR and the Technical Specifications.

- SNC1116341 ITP perform 3-GEN-ITPS-636 Plant Trip from 100% Power Startup Test, Rev. 0

b. Findings

No findings were identified.

3P04 Inservice Inspection

The inspectors used the following NRC IP/section to perform this inspection:

- 73054 - Part 52, Preservice and Inservice Inspection - Review of Program

a. Inspection Scope

The inspectors reviewed appropriate portions of the IP to verify if the approved inservice inspection program had proper scope of components, inspection requirements, repair and replacement was established in accordance with the American Society of Mechanical Engineers Code, and reporting and training requirements established. The inspectors reviewed the program to verify if it satisfied the requirements of the quality assurance program and Title 10 of the Code of Federal Regulations Part 50.55a.

b. Findings

No findings were identified.

**4. OTHER INSPECTION RESULTS**

4OA6 Meetings, Including Exit

.1 Exit Meeting.

On August 22, 2023, the inspectors presented the inspection results to Steven Leighty, Vogtle Units 3 & 4 Licensing Manager, 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**

Licenses and Contractor Personnel

A. Nix, ITP Director  
E. Loehlein, Operations Director  
J. Coleman, Regulatory Affairs Director  
R. Nicoletto, NI Manager  
J. Hartman, Shift Operations Manager  
D. Trafford, Operations Support Manager  
C. Parkes, Operations Services Manager  
S. Leighty, Regulatory Affairs Manager  
W. Garrett, Licensing Manager  
C. Houseal, Startup 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**

Procedures:

3-GEN-ITPS-633, 100% Load Rejection Startup Test Procedure, Ver. 5.0 (TPC 1.0)  
3-AOP-302, Loss of AC Power, Version 1.1

Miscellaneous:

SV3-GW-GNR-019, Disposition of Manual Actions (Acceptance Criteria 3) during the GEN-633A, 7/27/2023  
APP-GW-T1-696, AP1000 Startup Test Specifications For Power Ascension System Performance Tests, Rev. 2

**Section 3P02**

Procedures:

3-GEN-ITPS-638, Loss of Offsite Power Startup Test Procedure, Version 7.0  
3-AOP-302, Loss of AC Power, Version 1.1

Corrective Action Documents:

CR 10988062  
CR 10988075  
CR 10988178  
CR 10990901  
TE 1132767  
TE 1132526

**Miscellaneous:**

APP-GW-T1-696, AP1000 Startup Test Specifications For Power Ascension System  
Performance Tests, Rev. 2

SVP\_SV0\_230121, Vogtle Unit 3 Loss of Offsite Power (LOOP) Startup Test, 7/19/2023

**Section 3P03**

CR 10978881

SV3-GW-GNR-018, Disposition of 100% Plateau Main Generator Output Breaker Trip Test  
(GEN-636A) Deviations (TE 1130322, TE 1130324, and TE1130451), Rev. 0

**LIST OF ACRONYMS**

COL	Combined License
DCO	Division of Construction Oversight
IMC	Inspection Manual Chapter
IP	inspection procedure
IR	inspection report
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records