

May 27, 2022

Docket No.: 52-025

ND-22-0399  
10 CFR 52.99(c)(1)U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Unit 3  
ITAAC Closure Notification on Completion of ITAAC 2.2.03.11b.i [Index Number 209]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 3 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.2.03.11b.i [Index Number 209]. This ITAAC confirms that squib valves receive an electrical signal at the valve electrical leads that is capable of actuating the valve after a signal is input to the PMS for the squib valves identified in Combined License (COL) Appendix C Table 2.2.3-1. The closure process for this ITAAC is based on the guidance described in Nuclear Energy Institute (NEI) 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52," which was endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,



Jamie M. Coleman  
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3  
Completion of ITAAC 2.2.03.11b.i [Index Number 209]

JMC/RLB/sfr

U.S. Nuclear Regulatory Commission

ND-22-0399

Page 2 of 3

**To:**

**Southern Nuclear Operating Company/ Georgia Power Company**

Mr. Peter P. Sena III

Mr. D. L. McKinney

Mr. H. Nieh

Mr. G. Chick

Mr. S. Stimac

Mr. P. Martino

Mr. D. Pitts

Mr. J. B. Williams

Mr. A. S. Parton

Ms. K. A. Roberts

Ms. J.M. Coleman

Mr. C. T. Defnall

Mr. C. E. Morrow

Mr. K. J. Drudy

Mr. J. M. Fisher

Mr. R. L. Beilke

Mr. S. Leighty

Ms. A. C. Chamberlain

Mr. J. C. Haswell

Document Services RTYPE: VND.LI.L06

File AR.01.02.06

cc:

**Nuclear Regulatory Commission**

Ms. M. Bailey

Mr. M. King

Mr. G. Bowman

Ms. A. Veil

Mr. C. P. Patel

Mr. G. J. Khouri

Mr. C. J. Even

Mr. B. J. Kemker

Ms. N. C. Covert

Mr. C. Welch

Mr. J. Gaslevic

Mr. O. Lopez-Santiago

Mr. G. Armstrong

Mr. M. Webb

Mr. T. Fredette

Mr. C. Santos

Mr. B. Davis

Mr. J. Vasquez

Mr. J. Eargle

Ms. K. McCurry

Mr. J. Parent

Mr. B. Griman

Mr. V. Hall

U.S. Nuclear Regulatory Commission

ND-22-0399

Page 3 of 3

**Oglethorpe Power Corporation**

Mr. R. B. Brinkman

Mr. E. Rasmussen

**Municipal Electric Authority of Georgia**

Mr. J. E. Fuller

Mr. S. M. Jackson

**Dalton Utilities**

Mr. T. Bundros

**Westinghouse Electric Company, LLC**

Dr. L. Oriani

Mr. D. C. Durham

Mr. M. M. Corletti

Mr. Z. S. Harper

Ms. S. L. Zwack

**Other**

Mr. S. W. Kline, *Bechtel Power Corporation*

Ms. L. Matis, *Tetra Tech NUS, Inc.*

Dr. W. R. Jacobs, Jr., Ph.D., *GDS Associates, Inc.*

Mr. S. Roetger, *Georgia Public Service Commission*

Mr. R. L. Trokey, *Georgia Public Service Commission*

Mr. K. C. Greene, *Troutman Sanders*

Mr. S. Blanton, *Balch Bingham*

U.S. Nuclear Regulatory Commission  
ND-22-0399 Enclosure  
Page 1 of 4

**Southern Nuclear Operating Company  
ND-22-0359  
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3  
Completion of ITAAC 2.2.03.11b.i [Index Number 209]**

## **ITAAC Statement**

### Design Commitment

11.b) The valves identified in Table 2.2.3-1 as having PMS control perform their active function after receiving a signal from the PMS.

### Inspections/Tests/Analyses

i) Testing will be performed on the squib valves identified in Table 2.2.3-1 using real or simulated signals into the PMS without stroking the valve.

### Acceptance Criteria

i) Squib valves receive an electrical signal at the valve electrical leads that is capable of actuating the valve after a signal is input to the PMS.

## **ITAAC Determination Basis**

Multiple ITAAC are performed to verify that the valves identified in Combined License (COL) Appendix C Table 2.2.3-1 as having Protective and Safety Monitoring System (PMS) control perform an active safety function after receiving a signal from PMS. The subject ITAAC performed testing on the squib valves listed in Attachment A.

Testing was performed in accordance with the preoperational tests and component test work orders listed in Reference 1 to verify that the valves identified in Attachment A as having PMS control perform an active safety function after receiving a signal from PMS. Testing was performed on the squib valves using real and simulated signals into the PMS without stroking the valve and ensuring the squib valves receive a signal at the valve electrical leads that is capable of actuating the squib valve.

Squib valve actuation signals generated in the Protection and Safety Monitoring System (PMS) were sent to the Component Interface Modules (CIM), resulting in an actuation of the CIM for the respective squib valve. The CIM is a safety-related component located inside the respective PMS cabinets which provides the capability for on/off control of individual safety-related plant components. Squib valve actuation signal output from the actuated CIM is sent to the respective squib valve through the squib valve controller. To provide overlap, the Reference 1 component test work orders verified that when PMS controls were operated in the Main Control Room (MCR), the CIM was actuated and a signal was received at the squib valve controller. From the squib valve controller, the Reference 1 preoperational tests used a test tool connected to the squib valve controller to initiate a test signal and verify the signal was received at the squib valve electrical leads.

The Reference 1 component test work orders for each squib valve identified in Attachment A were conducted by manually initiating a PMS signal from the MCR using the PMS Safety Display Panel In-Containment Refueling Water Storage Tank soft controls. The squib valve actuation signal from the CIM was verified locally by measuring the arming and firing voltages at the Squib Valve Controller (SVC) cabinet. Each squib valve identified in Attachment A had the electrical leads disconnected to prevent stroking the valve.

The Reference 1 preoperational tests for each squib valve identified in Attachment A were conducted by connecting a PMS SVC Test Tool to the SVC. Circuit resistance was measured

and inside and outside containment temperatures were measured at multiple locations and were used to calculate the circuit resistance expected during accident conditions. The calculated circuit resistances were verified to meet the minimum and maximum allowable resistances. The circuit resistance information was used to determine the circuit resistance input to the PMS SVC Test Tool. A multimeter along with a temporary data acquisition system was connected to the PMS SVC Test Tool to determine voltage and signal duration. The PMS SVC Test Tool was then used to initiate an arm and test fire sequence. Firing current was determined from the voltage measurements taken during the arm and test fire sequence.

The minimum signal necessary to actuate the squib valves is specified in valve design information as at least 3.7 amperes for 10 milliseconds. The information recorded during testing of signal duration and voltage was utilized to confirm that a sufficient test signal was received at each of the squib valves.

The test results identified in Reference 1 confirmed that each squib valve, identified in Attachment A, receives an electrical signal at the valve electrical leads that is capable of actuating the squib valve after a signal is input to the PMS.

Reference 1 is available for NRC inspection as part of the ITAAC 2.2.03.11b.i Completion Package (Reference 2).

#### **ITAAC Finding Review**

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all findings pertaining to the subject ITAAC and associated corrective actions. This review found there were no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.2.03.11b.i (Reference 2) and is available for NRC review.

#### **ITAAC Completion Statement**

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.2.03.11b.i was performed for VEGP Unit 3 and that the prescribed acceptance criteria was met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

#### **References (available for NRC inspection)**

1. SV3-PXS-ITR-800209, Unit 3 Testing Results of PXS Squib Valves: ITAAC 2.2.03.11b.i, Rev 0
2. 2.2.03.11b.i-U3-CP-Rev0, ITAAC Completion Package

**Attachment A**  
**\*Excerpt from COL Appendix C Table 2.2.3-1**

<b>*Equipment Name</b>	<b>*Tag No.</b>	<b>*Control PMS/DAS</b>
Containment Recirculation A Squib Valve	PXS-PL-V118A	Yes/Yes
Containment Recirculation B Squib Valve	PXS-PL-V118B	Yes/Yes
Containment Recirculation A Squib Valve	PXS-PL-V120A	Yes/Yes
Containment Recirculation B Squib Valve	PXS-PL-V120B	Yes/Yes
IRWST Injection A Squib Valve	PXS-PL-V123A	Yes/Yes
IRWST Injection B Squib Valve	PXS-PL-V123B	Yes/Yes
IRWST Injection A Squib Valve	PXS-PL-V125A	Yes/Yes
IRWST Injection B Squib Valve	PXS-PL-V125B	Yes/Yes