

M. J. Yox  
Regulatory Affairs Director  
Vogtle 3&4  
Nuclear Development

Southern Nuclear  
Operating Company, Inc.  
7825 River Road  
Waynesboro, GA 30830

Tel 706.848.6459



Docket No.: 52-026

**OCT 28 2016**

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

ND-16-2247  
10 CFR 52.99(c)(1)

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Unit 4  
ITAAC Closure Notification on Completion of ITAAC 2.2.04.09b.ii [Index No. 243]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 4 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.2.04.09b.ii [Index Number 243] for verifying that each Steam Generator System (SGS) power-operated relief valve will relieve greater than 300,000 lb/hr at 1106 psia  $\pm$  10 psi. The closure process for this ITAAC is based on the guidance described in 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 David Woods at 706-848-6903.

Respectfully submitted,



Michael J. Yox  
Regulatory Affairs Director Vogtle 3&4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4  
Completion of ITAAC 2.2.04.09b.ii [Index No. 243]

MJY/kms/amm

**To:**

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

Mr. S. E. Kuczynski (w/o enclosures)

Mr. D. A. Bost (w/o enclosures)

Mr. M. D. Meier

Mr. M. D. Rauckhorst (w/o enclosures)

Mr. D. H. Jones (w/o enclosures)

Ms. K. D. Fili

Mr. D. L. McKinney

Mr. B. H. Whitley

Mr. D. L. Fulton

Mr. C. E. Morrow

Mr. M. J. Yox

Mr. D. Woods

Ms. A. L. Pugh

Ms. K. M. Stacy

Mr. A. S. Parton

Mr. W. A. Sparkman

Mr. J. P. Redd

Mr. D. R. Culver

Mr. F. H. Willis

Document Services RTYPE: VND.LI.L06

File AR.01.02.06

cc:

**Nuclear Regulatory Commission**

Ms. C. Haney (w/o enclosures)

Ms. A. Bradford (w/o enclosures)

Ms. J. L. Dixon-Herrity (w/o enclosures)

Ms. J. M. Heisserer

Mr. C. J. Even

Mr. C. P. Patel

Mr. B. M. Bovol

Ms. R. C. Reyes

Ms. M. A. Sutton

Mr. M. E. Ernstes

Mr. G. J. Khouri

Mr. J. D. Fuller

Mr. T. E. Chandler

Ms. S. E. Temple

Ms. P. Braxton

Mr. T. C. Brimfield

Mr. A. J. Lerch

**Oglethorpe Power Corporation**

Mr. M. W. Price

Ms. K. T. Haynes

Ms. A. Whaley

**Municipal Electric Authority of Georgia**

Mr. J. E. Fuller  
Mr. S. M. Jackson

**Dalton Utilities**

Mr. D. Cope

**WECTEC**

Mr. C. A. Castell

**Westinghouse Electric Company, LLC**

Mr. R. Easterling (w/o enclosures)  
Mr. J. W. Crenshaw (w/o enclosures)  
Mr. L. Woodcock (w/o enclosures)  
Mr. C. F. Landon  
Mr. A. F. Dohse  
Mr. M. Y. Shaqqo  
Ms. S. DiTommaso

**Other**

Mr. J. E. Hesler, *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*  
Ms. S. W. Kernizan, *Georgia Public Service Commission*  
Mr. K. C. Greene, *Troutman Sanders*  
Mr. S. Blanton, *Balch Bingham*

U.S. Nuclear Regulatory Commission  
ND-16-2247 Enclosure  
Page 1 of 3

**Southern Nuclear Operating Company  
ND-16-2247  
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4  
Completion of ITAAC 2.2.04.09b.ii [Index Number 243]**

## **ITAAC Statement**

### **Design Commitment**

*9.b) During shutdown operations, the SGS removes decay heat by delivery of startup feedwater to the steam generator and venting of steam from the steam generators to the atmosphere.*

### **Inspections/Tests/Analyses**

*ii) Type tests and/or analyses will be performed to demonstrate the ability of the power-operated relief valves to discharge steam from the steam generators to the atmosphere.*

### **Acceptance Criteria**

*ii) A report exists and concludes that each power-operated relief valve will relieve greater than 300,000 lb/hr at 1106 psia  $\pm$ 10 psi.*

## **ITAAC Determination Basis**

Multiple ITAAC are performed to demonstrate that, during shutdown operations, the Steam Generator System (SGS) removes decay heat by delivery of startup feedwater to the steam generator and venting of steam from the steam generators to the atmosphere. The subject ITAAC requires type tests and/or analyses to be performed to demonstrate the ability of the power-operated relief valves to discharge steam from the steam generators to the atmosphere.

Type testing and analyses were performed to determine the flow from the SGS power-operated relief valves at two design conditions. Type testing was performed in accordance with American Society of Mechanical Engineers (ASME) QME-1-2007, "Qualification of Active Mechanical Equipment Used in Nuclear Power Plants" (Reference 1).

The type testing showed that at a pressure of 809.7 psia, a flow rate of 866,900 lb/hr will be achieved. Additional vendor analyses showed that at a pressure of 1199.7 psia, a flow rate of 1,020,000 lb/hr will be achieved. The flow rates at these pressures show that the flow rate will be greater than 300,000 lb/hr at 1106 psia  $\pm$ 10 psi.

The results are documented in the Equipment Qualification Data Package (Reference 3) and Equipment Qualification Summary Report (Reference 2) and conclude that each power-operated relief valve will relieve greater than 300,000 lb/hr at 1106 psia  $\pm$ 10 psi.

## **ITAAC Finding Review**

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This review found that there are no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review document number is included in the

Vogtle Unit 4 ITAAC Completion Package for ITAAC 2.2.04.09b.ii (Reference 4) and available for NRC inspection.

### **ITAAC Completion Statement**

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.2.04.09b.ii was performed for Vogtle Unit 4 and that the prescribed acceptance criteria are 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. American Society of Mechanical Engineers (ASME) QME-1-2007, "Qualification of Active Mechanical Equipment Used in Nuclear Power Plants"
2. APP-PV66-VBR-001, Rev. 1, "Equipment Qualification Summary Report for Control Components Inc. 12-inch Power-Operated Relief Valves for Use in the AP1000 Plant"
3. APP-PV66-VBR-002, Rev. 1, "Equipment Qualification Data Package for Control Components Inc. 12-inch Power-Operated Relief Valves for Use in the AP1000 Plant"
4. SVP\_SV0\_004260, Attachment 1, "Submittal of Inspections, Test, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 4 ITAAC 2.2.04.09b.ii [COL Index Number 243] (SGS PORV Relief Capacity)"