

Michael 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.: 52-025

**DEC 27 2016**

ND-16-2591  
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 2.1.03.09a.i [Index Number 81]

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 3 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) 2.1.03.09a.i [Index Number 81] for harsh environment qualification of the Reactor System Class 1E equipment identified in Combined License (COL) Appendix C, Table 2.1.3-1. 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 3  
Completion of ITAAC 2.1.03.09a.i [Index Number 81]

MJY/bh/amm

To:

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

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. 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  
Ms. A. C. Chamberlain  
Document Services RTYPE: VND.LI.L06  
File AR.01.02.06

cc:

**Nuclear Regulatory Commission**

Mr. W. Jones (w/o enclosures)  
Ms. J. M. Heisserer  
Mr. C. P. Patel  
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  
Mr. C. J. Even  
Ms. V. L. Ordaz

**Oglethorpe Power Corporation**

Mr. K. T. Haynes  
Mr. R. B. Brinkman

**Municipal Electric Authority of Georgia**

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

**Dalton Utilities**

Mr. T. Bundros

U.S. Nuclear Regulatory Commission

ND-16-2591

Page 3 of 3

**WECTEC**

Mr. C. A. Castell

**Westinghouse Electric Company, LLC**

Mr. R. Easterling (w/o enclosures)

Mr. G. Koucheravy (w/o enclosures)

Mr. F. Gill

Ms. L. Iller

Mr. J. Hopkins

Mr. D. Hawkins

Mr. C. F. Landon

Mr. M. Y. Shaqo

Ms. S. DiTommaso

Mr. A F. Dohse

**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*

**Southern Nuclear Operating Company  
ND-16-2591  
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3  
Completion of ITAAC 2.1.03.09a.i [Index Number 81]**

### **ITAAC Statement**

#### **Design Commitment:**

9.a) The Class 1E equipment identified in Table 2.1.3-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.

#### **Inspections, Tests, Analyses:**

i) Type tests, analyses, or a combination of type tests and analyses will be performed on Class 1E equipment located in a harsh environment.

#### **Acceptance Criteria:**

i) A report exists and concludes that the Class 1E equipment identified in Table 2.1.3-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.

### **ITAAC Determination Basis**

Multiple Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) are performed to demonstrate that the Class 1E equipment identified in Combined License (COL) Appendix C, Table 2.1.3-1 (Attachment A) as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function. The subject ITAAC requires type tests, analyses, or a combination of type tests and analyses to be performed on Class 1E equipment located in a harsh environment.

Equipment qualification reports for the Class 1E equipment identified in COL Appendix C, Table 2.1.3-1 as being qualified for a harsh environment conclude that the equipment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.

The Class 1E equipment identified in COL Appendix C, Table 2.1.3-1 were qualified by a combination of type testing and analysis in accordance with The Institute of Electrical and Electronics Engineers, Inc. (IEEE) 323-1974 (Reference 1) and Regulatory Guide 1.89, "Qualification of Class 1E Equipment for Nuclear Power Plants", to meet the requirements of 10 CFR 50.49, "Environmental Qualification of Electrical Equipment Important to Safety for Nuclear Power Plants" and to demonstrate that the equipment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function. Additional information about the methods used to qualify safety-related equipment supplied for the AP1000 is provided in the Vogtle Units 3&4 Updated Final Safety Analysis Report, Appendix 3D, "Methodology for Qualifying AP1000 Safety-Related Electrical and Mechanical Equipment" (Reference 2).

The results of the tests and analysis are documented in Equipment Qualification Data Package (EQDP) and Equipment Qualification Summary Report (EQSR) (References 3 and 4) identified in Attachment A and conclude the equipment identified in COL Appendix C, Table 2.1.3-1, can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.

### **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 3 ITAAC Completion Package for ITAAC 2.1.03.09a.i (Reference 5) and available for Nuclear Regulatory Commission (NRC) inspection.

### **ITAAC Completion Statement**

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.1.03.09a.i was performed for Vogtle Unit 3 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. IEEE STD 323-1974, "IEEE Standard for Qualifying Class IE Equipment for Nuclear Power Generating Stations"
2. VEGP 3&4 Updated Final Safety Analysis Report, Appendix 3D, "Methodology for Qualifying AP1000 Safety-Related Electrical and Mechanical Equipment"
3. APP-JE92-VBR-001 Revision 3, "Equipment Qualification Summary Report for Nuclear Instrumentation System Detectors for Use in the AP1000 Plant"
4. APP-JE92-VBR-002 Revision 3, "Equipment Qualification Data Package Report for Nuclear Instrumentation System Detectors for Use in the AP1000 Plant"
5. SVP\_SV0\_004382, Attachment 1, "Submittal of Inspections, Test, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 3 ITAAC 2.1.03.09a.i [COL Index Number 81] (RXS Harsh Environment Qualification)"

**Attachment A**

**Equipment Qualification ITAAC Compliance Table**

**Excerpt from VEGP Unit 3 COL Appendix C Table 2.1.3-1\***

**SYSTEM: REACTOR SYSTEM**

<b>Equipment Name*</b>	<b>Tag No.*</b>	<b>Class 1E / Qual. For Harsh Envir.*</b>	<b>EQSR Number</b>	<b>EQDP Number</b>
Source Range Detectors (4)	RXS-JE-NE001A/NE001B/NE001C/NE001D	Yes/Yes	APP-JE92-VBR-001	APP-JE92-VBR-002
Intermediate Range Detectors (4)	RXS-JE-NE002A/NE002B/NE002C/NE002D	Yes/Yes	APP-JE92-VBR-001	APP-JE92-VBR-002
Power Range Detectors – Lower (4)	RXS-JE-NE003A/NE003B/NE003C/NE003D	Yes/Yes	APP-JE92-VBR-001	APP-JE92-VBR-002
Power Range Detectors – Upper (4)	RXS-JE-NE004A/NE004B/NE004C/NE004D	Yes/Yes	APP-JE92-VBR-001	APP-JE92-VBR-002