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U.S. Nuclear Regulatory Commission  
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Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Unit 4  
ITAAC Closure Notification on Completion of ITAAC 2.2.01.06a.i [Index Number 101]

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 2.2.01.06a.i [Index Number 101] for the site verification of Containment System Class 1E equipment qualified to harsh environments as identified in VEGP Unit 4 COL Appendix C, Table 2.2.1-1. 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  
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MJY/bh/amm

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4  
Completion of ITAAC 2.2.01.06a.i [Index Number 101]

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**Southern Nuclear Operating Company  
ND-16-2828  
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4  
Completion of ITAAC 2.2.01.06a.i [Index Number 101]**

### **ITAAC Statement**

#### **Design Commitment:**

6.a) The Class 1E equipment identified in Table 2.2.1-1 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 2.2.1-1 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 Vogtle Electric Generating Plant (VEGP) Unit 4 Combined License (COL) Appendix C, Table 2.2.1-1 (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.

The Class 1E equipment identified in COL Appendix C, Table 2.2.1-1 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. For safety-related mechanical equipment, such as valves, type testing meets the requirements of Appendix A to 10 CFR Part 50, General Design Criterion 4, "Environmental and Dynamic Effects Design Bases." 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 through 12) identified in Attachment A and conclude the equipment identified in COL Appendix C, Table 2.2.1-1, 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 identified one such finding, listed below.

1. Nonconformance (NON) 99900404/2012-201-01

The corrective actions for the above finding have been completed and the finding has been closed. The ITAAC completion review document number is included in the Vogtle Unit 4 ITAAC Completion Package for ITAAC 2.2.01.06a.i (Reference 14) and available for NRC inspection.

### **ITAAC Completion Statement**

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.2.01.06a.i 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. IEEE STD 323-1974, "IEEE Standard for Qualifying Class IE Equipment for Nuclear Power Generating Stations"
2. Updated Final Safety Analysis Report, Appendix 3D, "Methodology for Qualifying AP1000 Safety-Related Electrical and Mechanical Equipment"
3. APP-PV11-VBR-005, Revision 1, "Equipment Qualification Summary Report for Motor-Operated TRICENTRIC Butterfly Valves for Use in the AP1000 Plant"
4. APP-PV11-VBR-006, Revision 1, "Equipment Qualification Data Package for Motor-Operated TRICENTRIC Butterfly Valves for Use in the AP1000 Plant"
5. APP-PV11-VBR-003, Revision 1, "Equipment Qualification Summary Report for Air-Operated TRICENTRIC Butterfly Valves for use in the AP1000 Plant"
6. APP-PV11-VBR-004, Revision 1, "Equipment Qualification Data Package for Air-Operated TRICENTRIC Butterfly Valves for Use in the AP1000 Plant"

7. APP-PV14-VBR-001, Revision 1, "Equipment Qualification Summary Report for Fisher HPNS Control Valves for Use in the AP1000 Plant", *as modified by Reference 13*
8. APP-PV14-VBR-002, Revision 1, "Equipment Qualification Data Package for Fisher HPNS Control Valves for Use in the AP1000 Plant", *as modified by Reference 13*
9. APP-PV10-VBR-005, Revision 2, "Equipment Qualification Summary Report for Air-Operated Plug Valves for Use in the AP1000 Plant", *as modified by Reference 13*
10. APP-PV10-VBR-006, Revision 2, "Equipment Qualification Data Package for Air-Operated Plug Valves for Use in the AP1000 Plant", *as modified by Reference 13*
11. APP-EY01-VBR-003, Revision 3, "Equipment Qualification Summary Report for Low Voltage Power, Control, and I&C Electrical Penetration Assemblies for Use in the AP1000 Plant"
12. APP-EY01-VBR-004, Revision 3, "Equipment Qualification Data Package for Low-Voltage Power, Control, and I&C Electrical Penetration Assemblies for Use in the AP1000 Plant"
13. APP-GW-GEF-1844, Revision 0, "Reduced Qualified Life of ASCO Solenoid Valves for PV10, PV14, and PV20 Commodities to Address CAPAL #100435653"
14. SVP\_SV0\_004554, Attachment 1, "Submittal of Inspections, Test, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 4 2.2.01.06a.i [COL Index Number 101] (CNS Harsh Environment Qualification)"

**Attachment A**

**Excerpt from VEGP Unit 4 COL Appendix C Table 2.2.1-1\***

<b>Equipment Name*</b>	<b>Tag No.*</b>	<b>Class 1E / Qual. For Harsh Envir.*</b>	<b>EQSR#</b>	<b>EQDP#</b>
CCS Containment Isolation MOV – Outlet Line IRC	CCS-PL-V207	Yes/Yes	APP-PV11-VBR-005	APP-PV11-VBR-006
SFS Suction Line Containment Isolation MOV – IRC	SFS-PL-V034	Yes/Yes	APP-PV11-VBR-005	APP-PV11-VBR-006
Containment Purge Inlet Containment Isolation Valve – IRC	VFS-PL-V004	Yes/Yes	APP-PV11-VBR-003	APP-PV11-VBR-004
Containment Purge Discharge Containment Isolation Valve – IRC	VFS-PL-V009	Yes/Yes	APP-PV11-VBR-003	APP-PV11-VBR-004
Fan Coolers Return Containment Isolation Valve – IRC	VWS-PL-V082	Yes/Yes	APP-PV11-VBR-003	APP-PV11-VBR-004
Reactor Coolant Drain Tank (RCDT) Gas Outlet Containment Isolation Valve – IRC	WLS-PL-V067	Yes/Yes	APP-PV14-VBR-001	APP-PV14-VBR-002
Sump Discharge Containment Isolation Valve – IRC	WLS-PL-V055	Yes/Yes	APP-PV10-VBR-005	APP-PV10-VBR-006
Electrical Penetration P11	IDSA-EY-P11Z	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P12	IDSA-EY-P12Y	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004



<b>Equipment Name*</b>	<b>Tag No.*</b>	<b>Class 1E / Qual. For Harsh Envir.*</b>	<b>EQSR#</b>	<b>EQDP#</b>
Electrical Penetration P13	IDSA-EY-P13Y	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P14	IDSD-EY-P14Z	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P15	IDSD-EY-P15Y	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P16	IDSD-EY-P16Y	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P27	IDSC-EY-P27Z	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P28	IDSC-EY-P28Y	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P29	IDSC-EY-P29Y	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P30	IDSB-EY-P30Z	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P31	IDSB-EY-P31Y	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004
Electrical Penetration P32	IDSB-EY-P32Y	Yes/Yes	APP-EY01-VBR-003	APP-EY01-VBR-004