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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 2.7.01.05.ii [Index Number 685]

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 2.7.01.05.ii [Index Number 685] for verifying that a report exists and concludes that the seismic Category I equipment identified in Combined License (COL) Appendix C, Table 2.7.1-1 can withstand seismic design basis loads without loss of safety function. 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

MJY/rlb/amm

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.7.01.05.ii [Index Number 685]

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**Southern Nuclear Operating Company
ND-16-2841
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.7.01.05.ii [Index Number 685]**

ITAAC Statement

Design Commitment:

5. The seismic Category I equipment identified in Table 2.7.1-1 can withstand seismic design basis loads without loss of safety function.

Inspections, Tests, Analyses:

ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.

Acceptance Criteria:

ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.

ITAAC Determination Basis

Multiple Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) are performed to demonstrate that the seismic Category I equipment identified in Vogtle Electric Generating Plant (VEGP) Combined License (COL) Appendix C Table 2.7.1-1 (Attachment A) can withstand seismic design basis loads without loss of safety function. The subject ITAAC requires type tests, analyses, or a combination of type tests and analyses to be performed on seismic Category I equipment identified in VEGP COL Appendix C Table 2.7.1-1.

The seismic Category I valves listed in VEGP COL Appendix C Table 2.7.1-1 were qualified using a combination of type tests and analyses to demonstrate structural integrity and operability. Structural integrity of all of the seismic Category I valves was demonstrated by analysis in accordance with American Society of Mechanical Engineers Boiler and Pressure Vessel (B&PV) Code Section III, Rules for Construction of Nuclear Power Plant Components (Reference 1). For the subset of active safety-related valves identified in VEGP COL Appendix C Table 2.7.1-1, functionality of the active valves under seismic loads was accomplished by using the guidance of ASME QME-1-2007 (Reference 2).

Safety-related (Class 1E) electrical equipment identified in VEGP COL Appendix C Table 2.7.1-1 was seismically qualified by type testing combined with analysis in accordance with The Institute of Electrical and Electronics Engineers, Inc. (IEEE) Standard 344-1987 (Reference 3). This equipment includes safety-related (Class 1E) active valve accessories such as electric actuators, position switches, pilot solenoid valves and electrical connector assemblies.

The specific qualification method (i.e., type testing, analysis, or combination) used for the equipment is identified in Attachment A. Additional information about the methods used to qualify safety-related equipment supplied for the AP1000 is provided in VEGP Unit 3&4 Updated Final Safety Analysis (UFSAR) Appendix 3D, "Methodology for Qualifying AP1000 Safety-Related Electrical and Mechanical Equipment" (Reference 4).

The results of the tests and analyses are documented in Equipment Qualification Data Packages (EQDPs) and Equipment Qualification Summary Reports (EQSRs) (References 5 through 12) identified in Attachment A and conclude that the seismic Category I equipment identified in VEGP COL Appendix C Table 2.7.1-1 can withstand seismic design basis loads without loss of 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 one (1) open Notice of Nonconformance (NON) associated with this ITAAC:

- NON 99901412/2012-201-02

The NON is open; however, the corrective actions for the findings have been completed. The ITAAC completion review document number is included in the Vogtle Unit 4 ITAAC Completion Package for ITAAC 2.7.01.05.ii (Reference 13) and available for Nuclear Regulatory Commission (NRC) inspection.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.7.01.05.ii was performed for VEGP 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) Boiler & Pressure Vessel Code, 1998 Edition with 2000 Addenda, Section III, "Rules for Construction of Nuclear Power Plant Components"
2. ASME QME-1-2007, "Qualification of Active Mechanical Equipment Used in Nuclear Power Plants"
3. IEEE STD 344-1987, "IEEE Recommended Practices for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations"
4. Updated Final Safety Analysis Report, Appendix 3D, "Methodology for Qualifying AP1000 Safety-Related Electrical and Mechanical Equipment"
5. APP-PV02-VBR-009, Revision 0, "Equipment Qualification Summary Report for PV02 Manually Operated Globe Valves for Use in the AP1000 Plant"
6. APP-PV02-VBR-010, Revision 0, "Equipment Qualification Data Package for PV02 Manually Operated Globe Valves for Use in the AP1000 Plant"

7. APP-PV03-VBR-005, Revision 1, "Equipment Qualification Summary Report for Non-Active Flex Wedge Gate Valves for Use in the AP1000 Plant"
8. APP-PV03-VBR-006, Revision 1, "Equipment Qualification Data Package for Non-Active Flex Wedge Gate Valves for Use in the AP1000 Plant"
9. APP-PV11-VBR-005, Revision 1, "Equipment Qualification Summary Report for Motor-Operated TRICENTRIC Butterfly Valves for Use in the AP1000 Plant"
10. APP-PV11-VBR-006, Revision 1, "Equipment Qualification Data Package for Motor-Operated TRICENTRIC Butterfly Valve for Use in the AP1000 Plant"
11. APP-PV18-VBR-001, Revision 0, "Equipment Qualification Summary Report for Vacuum Relief Valves and Vacuum Breaker Valves for Use in the AP1000 Plant"
12. APP-PV18-VBR-002, Revision 0, "Equipment Qualification Data Package for Vacuum Relief Valves and Vacuum Breaker Valves for Use in the AP1000 Plant"
13. SVP_SV0_004522, Attachment 1, "Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 4 ITAAC 2.7.01.05.ii [COL Index Number 685] (VBS Seismic Analysis)"

Attachment A

Equipment Qualification ITAAC Compliance Table

Excerpt from VEGP Unit 4 COL Appendix C Table 2.7.1-1*

SYSTEMS: NUCLEAR ISLAND NONRADIOACTIVE VENTILATION SYSTEM
 SANITARY DRAINAGE SYSTEM
 POTABLE WATER SYSTEM
 WASTE WATER SYSTEM

Equipment Name*	Tag No.*	Seismic Cat. I*	Type of Qualification	Qualification Report Number
MCR Supply Air Isolation Valve	VBS-PL-V186	Yes	Type Tests & Analyses	APP-PV11-VBR-005 APP-PV11-VBR-006
MCR Supply Air Isolation Valve	VBS-PL-V187	Yes	Type Tests & Analyses	APP-PV11-VBR-005 APP-PV11-VBR-006
MCR Return Air Isolation Valve	VBS-PL-V188	Yes	Type Tests & Analyses	APP-PV11-VBR-005 APP-PV11-VBR-006
MCR Return Air Isolation Valve	VBS-PL-V189	Yes	Type Tests & Analyses	APP-PV11-VBR-005 APP-PV11-VBR-006
MCR Exhaust Air Isolation Valve	VBS-PL-V190	Yes	Type Tests & Analyses	APP-PV11-VBR-005 APP-PV11-VBR-006
MCR Exhaust Air Isolation Valve	VBS-PL-V191	Yes	Type Tests & Analyses	APP-PV11-VBR-005 APP-PV11-VBR-006
PWS MCR Isolation Valve	PWS-PL-V418	Yes	Type Tests & Analyses	APP-PV02-VBR-009 APP-PV02-VBR-010
PWS MCR Isolation Valve	PWS-PL-V420	Yes	Type Tests & Analyses	APP-PV02-VBR-009 APP-PV02-VBR-010
PWS MCR Vacuum Relief	PWS-PL-V498	Yes	Type Tests & Analyses	APP-PV18-VBR-001 APP-PV18-VBR-002
MCR SDS (Vent) Isolation Valve	SDS-PL-V001	Yes	Type Tests & Analyses	APP-PV11-VBR-005 APP-PV11-VBR-006
MCR SDS (Vent) Isolation Valve	SDS-PL-V002	Yes	Type Tests & Analyses	APP-PV11-VBR-005 APP-PV11-VBR-006
MCR WWS Isolation Valve	WWS-PL-V506	Yes	Analyses	APP-PV03-VBR-005 APP-PV03-VBR-006