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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3 and Unit 4
Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load
Item 2.3.07.05.i [Index Number 396]

Ladies and Gentlemen:

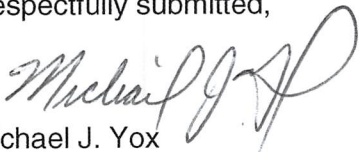
Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of February 16, 2018, Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4 Uncompleted Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.3.07.05.i [Index Number 396] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing this ITAAC. Southern Nuclear Operating Company will, at a later date, provide additional notifications for ITAAC that have not been completed 225-days prior to initial fuel load.

This notification is informed by 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. In accordance with NEI 08-01, this notification includes ITAAC for which required inspections, tests, or analyses have not been performed or have been only partially completed. All ITAAC will be fully completed and all Section 52.99(c)(1) ITAAC Closure Notifications will be submitted to NRC to support the Commission finding that all acceptance criteria are met prior to plant operation, as required by 10 CFR 52.103(g).

This letter contains no new NRC regulatory commitments.

If there are any questions, please contact Tom Petrak at 706-848-1575.

Respectfully submitted,



Michael J. Yox
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.3.07.05.i [Index Number 396]

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**Southern Nuclear Operating Company
ND-18-0257
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.3.07.05.i [Index Number 396]**

ITAAC Statement

Design Commitment:

5. The seismic Category I components identified in Table 2.3.7-1 can withstand seismic design basis loads without loss of safety functions.

Inspections, Tests, Analyses:

i) Inspection will be performed to verify that the seismic Category I components identified in Table 2.3.7-1 are located on the Nuclear Island.

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

iii) Inspection will be performed for the existence of a report verifying that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.

Acceptance Criteria:

i) The seismic Category I components identified in Table 2.3.7-1 are located on the Nuclear Island.

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

iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.

ITAAC Completion Description

This ITAAC requires that inspections, tests, and analyses be performed and documented to ensure the Spent Fuel Pool Cooling System (SFS) components (equipment) identified as seismic Category I in the Combined License (COL) Appendix C, Table 2.3.7-1 (the Table) are designed and constructed in accordance with applicable requirements.

i) The seismic Category I components identified in Table 2.3.7-1 are located on the Nuclear Island.

To assure that seismic Category I components can withstand seismic design basis loads without loss of safety function, all the components in the Table are designed to be located on the seismic Category I Nuclear Island. In accordance with Equipment Qualification (EQ) Walkdown ITAAC Guideline (Reference 1), an inspection is conducted of the SFS to confirm the satisfactory installation of the seismically qualified components. The inspection includes verification of component make/model/serial number and verification of component location (Building, Elevation, Room). The EQ As-Built Reconciliation Reports (EQRR) (Reference 2) identified in Attachment A document the results of the inspection and conclude that the seismic Category I components are located on the Nuclear Island.

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

Seismic Category I equipment in the Table requires type tests and/or analyses to demonstrate structural integrity and operability. Structural integrity of the seismic Category I valves is demonstrated by analysis in accordance with American Society of Mechanical Engineers (ASME) Code Section III (Reference 3). Functionality of the subset of active safety-related valves under seismic loads is determined using the guidance of ASME QME-1-2007 (Reference 4).

Safety-related (Class 1E) electrical equipment in the Table is seismically qualified by type testing combined with analysis in accordance with Institute of Electrical and Electronics Engineers (IEEE) Standard 344-1987 (Reference 5). This equipment includes safety-related (Class 1E) field sensors and the safety-related 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 each piece of equipment in the Table is identified in Attachment A. Additional information about the methods used to qualify AP1000 safety-related equipment is provided in the Updated Final Safety Analysis Report (UFSAR) Appendix 3D (Reference 6). The EQ Reports (Reference 7) identified in Attachment A contain applicable test reports and associated documentation and conclude that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.

iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.

An inspection (Reference 1) is conducted to confirm the satisfactory installation of the seismically qualified equipment in the Table. The inspection verifies the equipment make/model/serial number, as-designed equipment mounting orientation, anchorage and clearances, and electrical and other interfaces. The documentation of installed configuration of seismically qualified equipment includes photographs and/or sketches/drawings of equipment/mounting/interfaces.

As part of the seismic qualification program, consideration is given to the definition of the clearances needed around the equipment mounted in the plant to permit the equipment to move during a postulated seismic event without causing impact between adjacent pieces of safety-related equipment. This is done as part of seismic testing by measuring the maximum dynamic relative displacement of the top and bottom of the equipment. EQ Reports (Reference 7) identify the equipment mounting employed for qualification and establish interface requirements for assuring that subsequent in-plant installation does not degrade the established qualification. Interface requirements are defined based on the test configuration and other design requirements.

Attachment A identifies the EQRR (Reference 2) completed to verify that the as-built seismic Category I equipment listed in the Table, including anchorage, are seismically bounded by the tested or analyzed conditions, IEEE Standard 344-1987 (Reference 5), and NRC Regulatory Guide 1.100 (Reference 8).

Together, these reports (References 2 and 7) provide evidence that the ITAAC Acceptance Criteria requirements are met:

- The seismic Category I components identified in Table 2.3.7-1 are located on the Nuclear Island;
- A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function; and
- A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.

References 2 and 7 are available for NRC inspection as part of the Unit 3 and Unit 4 ITAAC 2.3.07.05.i Completion Packages (References 9 and 10, respectively).

List of ITAAC Findings

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 finding review, which included now-consolidated ITAAC Indexes 397 and 398, found one relevant ITAAC finding associated with this ITAAC.

- 1) Notice of Nonconformance (NON) 99901412/2012-201-02 (Closed)

References (available for NRC inspection)

1. ND-xx-xx-001, "EQ Walkdown ITAAC Guideline"
2. EQ As-Built Reconciliation Reports (EQRR) as identified in Attachment A for Units 3 and 4
3. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section III, "Rules for Construction of Nuclear Power Plant Components," 1998 Edition with 2000 Addenda
4. ASME QME-1-2007, "Qualification of Active Mechanical Equipment Used in Nuclear Power Plants," The American Society of Mechanical Engineers, June 2007
5. IEEE Standard 344-1987, "IEEE Recommended Practices for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations"
6. Vogtle 3&4 Updated Final Safety Analysis Report Appendix 3D, "Methodology for Qualifying AP1000 Safety-Related Electrical and Mechanical Equipment"
7. Equipment Qualification (EQ) Reports as identified in Attachment A
8. Regulatory Guide 1.100, Rev. 2, "Seismic Qualification of Electric and Mechanical Equipment for Nuclear Power Plants"

9. 2.3.07.05.i-U3-CP-Rev X, "Completion Package for Unit 3 ITAAC 2.3.07.05.i [Index Number 396]"
10. 2.3.07.05.i-U4-CP-Rev X, "Completion Package for Unit 4 ITAAC 2.3.07.05.i [Index Number 396]"
11. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

Attachment A

System: Spent Fuel Pool Cooling System (SFS)

Equipment Name *	Tag No. *	Seismic Cat. I *	Type of Qual.	EQ Reports (Reference 7)	As-Built EQ EQRR (Reference 2) *
Spent Fuel Pool Level Sensor	SFS-019A	Yes	Type Test	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Spent Fuel Pool Level Sensor	SFS-019B	Yes	Type Test	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Spent Fuel Pool Level Sensor	SFS-019C	Yes	Type Test	APP-JE52-VBR-002 / APP-JE52-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Refueling Cavity Drain to SGS Compartment Isolation Valve	SFS-PL-V031	Yes	Type Test & Analysis	APP-PV11-VBR-002 / APP-PV11-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Refueling Cavity to SFS Pump Suction Isolation Valve	SFS-PL-V032	Yes	Type Test & Analysis	APP-PV11-VBR-002 / APP-PV11-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Refueling Cavity Drain to Containment Sump Isolation Valve	SFS-PL-V033	Yes	Type Test & Analysis	APP-PV10-VBR-002 / APP-PV10-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
IRWST to SFS Pump Suction Line Isolation Valve	SFS-PL-V039	Yes	Type Test & Analysis	APP-PV11-VBR-002 / APP-PV11-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Fuel Transfer Canal to SFS Pump Suction Iso. Valve	SFS-PL-V040	Yes	Type Test & Analysis	APP-PV11-VBR-002 / APP-PV11-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Cask Loading Pit to SFS Pump Suction Isolation Valve	SFS-PL-V041	Yes	Type Test & Analysis	APP-PV11-VBR-002 / APP-PV11-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Cask Loading Pit to SFS Pump Suction Isolation Valve	SFS-PL-V042	Yes	Type Test & Analysis	APP-PV11-VBR-002 / APP-PV11-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
SFS Pump Discharge Line to Cask Loading Pit Isolation Valve	SFS-PL-V045	Yes	Type Test & Analysis	APP-PV11-VBR-002 / APP-PV11-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Cask Loading Pit to WLS Isolation Valve	SFS-PL-V049	Yes	Type Test & Analysis	APP-PV10-VBR-002 / APP-PV10-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX
Spent Fuel Pool to Cask Washdown Pit Isolation Valve	SFS-PL-V066	Yes	Type Test & Analysis	APP-PV10-VBR-008 / APP-PV10-VBR-007	2.3.07.05.i-U3-EQRR-PCDXXX
Cask Washdown Pit Drain Isolation Valve	SFS-PL-V068	Yes	Type Test & Analysis	APP-PV11-VBR-002 / APP-PV11-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX

Attachment A

System: Spent Fuel Pool Cooling System (SFS)

Equipment Name +	Tag No. +	Seismic Cat. I +	Type of Qual.	EQ Reports (Reference 7)	As-Built EQ EQRR (Reference 2) *
Refueling Cavity Drain Line Check Valve	SFS-PL-V071	Yes	Analysis	APP-PV03-VBR-014 / APP-PV03-VBR-013	2.3.07.05.i-U3-EQRR-PCDXXX
Refueling Cavity Drain Line Check Valve	SFS-PL-V072	Yes	Analysis	APP-PV03-VBR-014 / APP-PV03-VBR-013	2.3.07.05.i-U3-EQRR-PCDXXX
SFS Containment Floodup Isolation Valve	SFS-PL-V075	Yes	Type Test & Analysis	APP-PV11-VBR-002 / APP-PV11-VBR-001	2.3.07.05.i-U3-EQRR-PCDXXX

+ Excerpt from COL Appendix C Table 2.3.7-1

* The Unit 4 As-Built EQRR are numbered "2.3.07.05.i-U4-EQRR-PCDXXX"