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Docket Nos.: 52-025  
52-026

ND-19-1244  
10 CFR 52.99(c)(3)

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 2.2.03.08b.01 [Index Number 175]

Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of October 31, 2019, Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4 Uncompleted Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.2.03.08b.01 [Index Number 175] 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).

SNC has proposed changes to ITAAC Item 2.2.03.08b.01 via license amendment request (LAR) and exemption request, LAR-19-017 (reference ML19249C739), which was submitted to NRC on September 6, 2019. Upon NRC issuance of the amendment and exemption for LAR-19-017, this uncompleted ITAAC notification will be updated to reflect the approved ITAAC changes.

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

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Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4  
Completion Plan for Uncompleted ITAAC 2.2.03.08b.01 [Index Number 175]

MJY/DLW/sfr

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**Southern Nuclear Operating Company  
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**Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4  
Completion Plan for Uncompleted ITAAC 2.2.03.08b.01 [Index Number 175]**

### **ITAAC Statement**

#### **Design Commitment:**

8.b) The PXS provides core decay heat removal during design basis events.

#### **Inspection, Tests, Analyses:**

1. A heat removal performance test and analysis of the PRHR HX will be performed to determine the heat transfer from the HX. For the test, the reactor coolant hot leg temperature will be initially at  $\geq 540^{\circ}\text{F}$  with the reactor coolant pumps stopped. The IRWST water level for the test will be above the top of the HX. The IRWST water temperature is not specified for the test. The test will continue until the hot leg temperature decreases below  $420^{\circ}\text{F}$ .

#### **Acceptance Criteria:**

1. A report exists and concludes that the PRHR HX heat transfer rate with the design basis number of PRHR HX tubes plugged is:  
 $\geq 1.78 \times 10^8$  Btu/hr with  $520^{\circ}\text{F}$  HL Temp and  $80^{\circ}\text{F}$  IRWST temperatures.  
 $\geq 1.11 \times 10^8$  Btu/hr with  $420^{\circ}\text{F}$  HL Temp and  $80^{\circ}\text{F}$  IRWST temperatures.

### **ITAAC Completion Description**

Multiple ITAAC are performed to confirm the Passive Core Cooling System provides core decay heat removal during design basis events by testing and analysis of the Passive Residual Heat Removal (PRHR) Heat Exchanger (HX) to determine the heat transfer from the PRHR HX. The Reactor Coolant System (RCS) hot leg temperature will be initially  $\geq 540^{\circ}\text{F}$  with the Reactor Coolant Pumps (RCPs) stopped. The In-containment Refueling Water Storage Tank (IRWST) water level for the test will be above the top of the PRHR HX and the test will continue until the hot leg temperature decreases below  $420^{\circ}\text{F}$ .

The testing is performed in accordance with Unit 3 and Unit 4 Preoperational test procedures (References 1 and 2) during Hot Functional Testing with the RCS at normal operating temperature and pressure and the IRWST level verified to be above the PRHR HX. The RCPs are stopped, and the test initiated by opening one of the PRHR HX outlet valves. RCS temperature is monitored and when temperature decreases below  $420^{\circ}\text{F}$ , the PRHR HX outlet valve is closed. PRHR HX inlet temperature, RCS hot leg and cold leg temperatures, IRWST temperature and PRHR HX flow are trended during the test and this information is provided to engineering to perform the heat transfer rate calculations.

The completed test results report (References 1 and 2) document the heat transfer rate for Unit 3 is A.AA  $\times 10^8$  Btu/hr with  $520^{\circ}\text{F}$  HL Temperature and  $80^{\circ}\text{F}$  IRWST temperatures and B.BB  $\times 10^8$  Btu/hr with  $420^{\circ}\text{F}$  HL Temperature and  $80^{\circ}\text{F}$  IRWST temperatures. The heat transfer rate for Unit 4 is C.CC  $\times 10^8$  Btu/hr with  $520^{\circ}\text{F}$  HL Temperature and  $80^{\circ}\text{F}$  IRWST temperatures and D.DD  $\times 10^8$  Btu/hr with  $420^{\circ}\text{F}$  HL Temperature and  $80^{\circ}\text{F}$  IRWST temperatures.

This demonstrates that a report exists and concludes that the PRHR HX heat transfer rate with the design basis number of PRHR HX tubes plugged is:  
 $\geq 1.78 \times 10^8$  Btu/hr with  $520^{\circ}\text{F}$  HL Temp and  $80^{\circ}\text{F}$  IRWST temperatures.  
 $\geq 1.11 \times 10^8$  Btu/hr with  $420^{\circ}\text{F}$  HL Temp and  $80^{\circ}\text{F}$  IRWST temperatures.

References 1 and 2 are available for NRC inspection as part of ITAAC 2.2.03.08b.01 Unit 3 and 4 Completion Packages (Reference 3 and 4).

**List of ITAAC Findings**

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

**References (available for NRC inspection)**

1. 3-PXS-ITPP-XXX, PRHR heat transfer rate test
2. 4-PXS-ITPP-XXX, PRHR heat transfer rate test
3. 2.2.03.08b.01-U3-CP-Rev0, ITAAC Completion Package
4. 2.2.03.08b.01-U4-CP-Rev0, ITAAC Completion Package
5. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"