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A SOUTHERN COMPANY

Docket No.: 52-025

**OCT 20 2016**

ND-16-2104  
10 CFR 52.99(c)(3)

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Unit 3  
Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load  
Item 3.3.00.10.iii [Index Number 817]

Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of October 14, 2016, Vogtle Electric Generating Plant (VEGP) Unit 3 Uncompleted Inspection, Test, Analysis, and Acceptance Criteria (ITAAC) Item 3.3.00.10.iii [Index Number 817] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing ITAAC 3.3.00.10.iii [Index Number 817]. 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 David Woods at 706-848-6903.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael J. Yox".

Michael J. Yox  
Regulatory Affairs Director Vogtle 3&4

U.S. Nuclear Regulatory Commission

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Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3  
Completion Plan for Uncompleted ITAAC 3.3.00.10.iii [Index Number 817]

MJY/kms/amm

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**Southern Nuclear Operating Company  
ND-16-2104  
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3  
Completion Plan for Uncompleted ITAAC 3.3.00.10.iii [Index Number 817]**

**Subject: Uncompleted ITAAC 3.3.00.10.iii [Index No. 817]**

### **ITAAC Statement**

#### **Design Commitment**

10. *The shield building roof and PCS storage tank support and retain the PCS water sources. The PCS storage tank has a stainless steel liner which provides a barrier on the inside surfaces of the tank. Leak chase channels are provided on the tank boundary liner welds.*

#### **Inspections/Tests/Analyses**

- iii) *An inspection of the PCS storage tank exterior tank boundary and shield building tension ring will be performed before and after filling of the PCS storage tank to the overflow level. The boundaries of the PCS storage tank and the shield building roof above the tension ring will be inspected visually for excessive concrete cracking.*

#### **Acceptance Criteria**

- iii) *A report exists and concludes that there is no visible water leakage from the PCS storage tank through the concrete and that there is no visible excessive cracking in the boundaries of the PCS storage tank and the shield building roof above the tension ring.*

### **ITAAC Completion Description**

Multiple ITAAC are performed to verify the shield building roof and Passive Containment Cooling System (PCS) storage tank support and retain the PCS water sources. The PCS storage tank has a stainless steel liner which provides a barrier on the inside surfaces of the tank. Leak chase channels are provided on the tank boundary liner welds. The subject ITAAC requires visual inspections to confirm there is no visible water leakage from the PCS storage tank through the concrete and that there is no visible excessive cracking in the boundaries of the PCS storage tank and the shield building roof above the tension ring.

Prior to the first filling of the PCS storage tank, a crack map is developed for the PCS storage tank exterior tank boundary and the shield building roof above the tension ring. The crack mapping includes the exposed concrete surface of the PCS storage tank boundary and the shield building roof at several locations. A visual inspection is performed to obtain surface crack information. Crack evaluation and crack significance is determined using American Concrete Institute (ACI) 224.1R-07 Causes, Evaluation and Repair of Cracks in Concrete Structures, Chapter 2, (Reference 1).

Crack mapping is also conducted after the first filling of the PCS storage tank to the overflow level. A crack map is developed for the exposed concrete surfaces of the PCS storage tank exterior tank boundary and the shield building roof above the tension ring. The crack mapping reviews the exposed concrete surface at the same locations that were used for the crack mapping performed before the PCS storage tank was first filled. Visual inspections are again performed to obtain surface crack information. For both the PCS storage tank exterior tank

boundary and the shield building roof above the tension ring, the crack map for the filled condition is compared to the crack map for the unfilled condition and evaluated to determine whether any significant concrete cracking exists. Significant concrete cracking is documented and evaluated in accordance with ACI 349.3R-96, Evaluation of Existing Nuclear Safety-Related Concrete Structures, (Reference 2).

Visual inspection of the PCS storage tank is also performed once the tank is first filled to the overflow level to verify that there is no visible water leakage from the tank through the concrete. This inspection is supplemented by inspection of the leak chase collection pots to ensure that no leakage occurred through the tank liner seams.

The results of the visual inspections, crack mapping, and crack evaluations are documented in the Principal Closure Document XXX (Reference 3) supporting the ITAAC 3.3.00.10.iii Completion Package (Reference 4) and confirm that there is no visible water leakage from the PCS storage tank through the concrete and that there is no visible excessive cracking in the boundaries of the PCS storage tank and the shield building roof above the tension ring.

Principal Closure Document XXX is available for NRC inspection as part of the ITAAC 3.3.00.10.iii Completion Package.

### **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. ACI 224.1R-07 Causes, Evaluation and Repair of Cracks in Concrete Structures
2. ACI 349.3R-96, Evaluation of Existing Nuclear Safety-Related Concrete Structures.
3. Principal Closure Document XXX
4. ITAAC 3.3.00.10.iii Completion Package
5. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"