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U.S. Nuclear Regulatory Commission
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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 3.2.00.01c.ii [Index Number 742]

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 3.2.00.01c.ii [Index Number 742] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing ITAAC 3.2.00.01c.ii [Index Number 742]. 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,

Michael J. Yox
Regulatory Affairs Director Vogtle 3&4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3
Completion Plan for Uncompleted ITAAC 3.2.00.01c.ii [Index Number 742]

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Southern Nuclear Operating Company
ND-16-2166
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3
Completion Plan for Uncompleted ITAAC 3.2.00.01c.ii [Index Number 742]

Subject: Uncompleted ITAAC 3.2.00.01c.ii [Index No. 742]

ITAAC Statement

Design Commitment

1. *The HFE verification and validation program is performed in accordance with the HFE verification and validation implementation plan and includes the following activities:*

c) *Integrated system validation*

Inspections/Tests/Analyses

c)(ii) *Tests and analyses of the following plant evolutions and transients, using a facility that physically represents the MCR configuration and dynamically represents the MCR HSI and the operating characteristics and responses of the AP1000 design, will be performed:*

– *Normal plant heatup and startup to 100% power*

– *Normal plant shutdown and cooldown to cold shutdown*

– *Transients: reactor trip and turbine trip*

– *Accidents:*

- *Small-break LOCA*

- *Large-break LOCA*

- *Steam line break*

- *Feedwater line break*

- *Steam generator tube rupture*

Acceptance Criteria

c)(ii) *A report exists and concludes that: The test and analysis results demonstrate that the MCR operators can perform the following:*

– *Heat up and start up the plant to 100% power*

– *Shut down and cool down the plant to cold shutdown*

– *Bring the plant to safe shutdown following the specified transients*

– *Bring the plant to a safe, stable state following the specified accidents*

ITAAC Completion Description

Multiple ITAAC are performed to verify that the Human Factors Engineering (HFE) verification and validation program, as described in VEGP 3&4 Updated Final Safety Analysis Report, Section 18.11, Human Factors Engineering Verification and Validation, is performed in accordance with the HFE verification and validation implementation plan. The subject ITAAC requires that tests and analyses of the following plant evolutions and transients, using a facility that physically represents the Main Control Room (MCR) configuration and dynamically represents the MCR Human-System Interface (HSI) and the operating characteristics and responses of the AP1000 design, be performed:

– Normal plant heatup and startup to 100% power

– Normal plant shutdown and cooldown to cold shutdown

– Transients: reactor trip and turbine trip

– Accidents:

- Small-break Loss of Coolant Accident (LOCA)

- Large-break LOCA

- Steam line break

- Feedwater line break

- Steam generator tube rupture

An Integrated System Validation (ISV) is conducted in accordance with the AP1000 Human Factors Engineering Integrated System Validation Plan (Reference 1) to provide a human performance-based assessment of the HSI resources, based on their realistic operation within a simulator-driven MCR. The ISV uses the plant evolutions, transients and accident scenarios listed above to assess the usability of the MCR and HSI resources. The objective of ISV is to ensure that the functions and tasks allocated to plant personnel can be accomplished with the HSI design implementation.

Following completion of the ISV an evaluation is conducted of the ISV activity to ensure that the test and analysis results demonstrate that the MCR operators can perform the following: heat up and start up the plant to 100% power; shut down and cool down the plant to cold shutdown; bring the plant to safe shutdown following a reactor trip and a turbine trip; and bring the plant to a safe, stable state for the small-break LOCA, large-break LOCA, steam line break, feedwater line break and steam generator tube rupture accidents.

The results of the ISV are documented in the AP1000 Human Factors Engineering Integrated System Validation Report (Reference 2). This report concludes that the test and analysis results demonstrate that the MCR operators can perform the following: heat up and start up the

plant to 100% power; shut down and cool down the plant to cold shutdown; bring the plant to safe shutdown following a reactor trip and a turbine trip; and bring the plant to a safe, stable state for the small-break LOCA, large-break LOCA, steam line break, feedwater line break and steam generator tube rupture accidents. The AP1000 Human Factors Engineering Integrated System Validation Report is available for NRC inspection as part of the ITAAC Completion Package (Reference 3).

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. APP-OCS-GEH-320, "AP1000 Human Factors Engineering Integrated System Validation Plan"
2. APP-OCS-GER-320, "AP1000 Human Factors Engineering Integrated System Validation Report"
3. ITAAC 3.2.00.01c.ii Completion Package
4. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"