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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3 and Unit 4
Resubmittal of ITAAC Closure Notification on Completion of
ITAAC 3.2.00.01b [Index Number 740]

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 3 and Unit 4 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 3.2.00.01b [Index Number 740] for verifying the Human Factors Engineering Design Verification was performed in conformance with the implementation plan. 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.

Southern Nuclear Operating Company (SNC) previously submitted ITAAC Closure Notification on Completion of ITAAC 3.2.00.01b [Index Number 740], ND-16-2730 [ML17003A206], dated December 27, 2016 and ND-16-2731 [ML17003A196], dated December 27, 2016. This resubmittal provides additional details requested by the NRC staff during public meetings and supersedes ND-16-2730 and ND-16-2731 in their entirety.

This letter contains no new NRC regulatory commitments.

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

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Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion of ITAAC 3.2.00.01b [Index Number 740]

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**Southern Nuclear Operating Company
ND-17-1108
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion of ITAAC 3.2.00.01b [Index Number 740]**

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:

b) HFE design verification

Inspections, Tests, Analyses:

b) An evaluation of the implementation of the HFE design verification will be performed.

Acceptance Criteria:

b) A report exists and concludes that: HFE design verification was conducted in conformance with the implementation plan and includes verification that the HSI design is consistent with the AP1000 specific design guidelines developed for each HSI resource.

ITAAC Determination Basis

Multiple ITAAC are performed to confirm the Human Factors (HF) Engineering (HFE) verification and validation (V&V) program, as described in Chapter 18 of the VEGP 3 & 4 Updated Final Safety Analysis Report, is performed in accordance with the HFE V&V implementation plan. The subject ITAAC performs an evaluation of the implementation of the Human System Interface (HSI) design verification (DV).

The HSI DV was conducted in conformance with the NRC approved "AP1000 Human Factors Engineering Design Verification Plan", APP-OCS-GEH-120 (Reference 1). The implementation plan includes the methodology by which the HSI resources and Operation and Control Center System (OCS) design is evaluated against the human factors design guidelines.

The HFE DV plan for the AP1000 plant was developed based on the information and guidance described in NUREG-0711, "Human Factors Engineering Program Review Model", approved by the NRC. The HFE V&V activities, which include DV, are a check of the adequacy of HSI resources and Operations and Control Center System (OCS) design. The overall objective of HFE V&V is to ensure that the AP1000 design attains a high standard of HF adequacy and thereby contributes to the safety, operability and maintainability of the plant.

The objective of HFE DV is to confirm that HSI resources and OCS conform to the project's HFE design guidelines. The HSI design guidelines are established to ensure that the HSI design can accommodate human capabilities and limitations and to provide a consistent HSI design approach across the AP1000 project. As required by the DV plan (Reference 1), the HSI resources were compared with the HF design guidelines using design documentation and AP1000 displays. Deviations from these guidelines were noted as Human Engineering Discrepancies (HEDs) for further analysis and resolution within the HFE V&V process.

The identified HEDs were captured in the HF Tracking Database for further assessment and resolution, and will be documented using APP-OCS-GEH-420 (Reference 3), "AP1000 Human

Factors Engineering Discrepancy Resolution Process.” The HED resolution results will be provided in subsequent ITAAC 3.2.00.01d [Index No. 743].

The results of the evaluation are documented in the AP1000 Human Factors Engineering Design Verification Report, APP-OCS-GER-120 (Reference 2), and conclude the HSI design verification was conducted in accordance with the implementation plan and includes verification that the HSI design is consistent with the AP1000 specific design guidelines developed for each HSI resource.

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 that there are no relevant ITAAC findings associated with this ITAAC. The ITAAC completion reviews are documented in the Vogtle Unit 3 and Unit 4 ITAAC Completion Packages for ITAAC 3.2.00.01b (References 4 and 5, respectively) and available for NRC inspection.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 3.2.00.01b was performed for VEGP Unit 3 and Unit 4 and 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. APP-OCS-GEH-120, Revision 3, “AP1000 Human Factors Engineering Design Verification Plan”
2. APP-OCS-GER-120, Revision 2, “AP1000 HFE Design Verification Report”
3. APP-OCS-GEH-420, Revision 2, “AP1000 Human Factors Engineering Discrepancy Resolution Process”
4. SVP_SV0_004503, “Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 3 ITAAC 3.2.00.01b [COL Index Number 740] (HFE DV Evaluation),” Attachment 1, “ITAAC Completion Package for Unit 3 ITAAC 3.2.00.01b”
5. SVP_SV0_004504, “Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 4 ITAAC 3.2.00.01b [COL Index Number 740] (HFE DV Evaluation),” Attachment 1, “ITAAC Completion Package for Unit 4 ITAAC 3.2.00.01b”