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February 6, 2017  
NND-17-0005  
10 CFR 52.99(c)(1)

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

Subject: Virgil C. Summer Nuclear Station (VCSNS) Unit 3  
Combined License No. NPF-94  
Docket Number 52-028  
ITAAC Closure Notification on Completion of ITAAC 3.2.00.01c.i [Index  
No. 741]

Attachments: (1) References

The purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) in accordance with 10 CFR 52.99(c)(1) of the completion of Virgil C. Summer Nuclear Station (VCSNS) Unit 3 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 3.2.00.01c.i for verifying the test scenarios listed in the implementation plan for Human Factors Engineering (HFE) integrated system validation (ISV) were executed in conformance with the plan and noted human deficiencies were addressed. The closure process for this ITAAC is based on the guidance described in NEI 08-01 (Reference 1), which was endorsed by the NRC in Regulatory Guide 1.215.

### **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) (i) An evaluation of the implementation of the integrated system validation will be performed.*

Acceptance Criteria:

*c) (i) A report exists and concludes that: The test scenarios listed in the implementation plan for integrated system validation were executed in conformance with the plan and noted human deficiencies were addressed.*

**ITAAC Determination Basis**

Multiple ITAAC are performed to confirm that the HFE verification and validation program, as described in Chapter 18 of the V.C. Summer Units 2 & 3 Updated Final Safety Analysis Report, is performed in accordance with the HFE verification and validation implementation plan. The subject ITAAC performs an evaluation of ISV implementation. Following the execution of the ISV, an evaluation of the ISV activity (including operating procedures, operator performance, and control room design) was performed and documented. This evaluation concluded that the ISV was conducted in conformance with the NRC approved HFE ISV Plan (Reference 2) and concluded ISV participants received appropriate training, the simulator scenarios contained appropriate detail and were executed in conformance with the plan, the simulator adequately replicating the Main Control Room (MCR) Human System Interface (HSI) resource provided an appropriate ISV test bed, test data was collected and analyzed in accordance with the plan, and deficiencies were appropriately documented.

Following the execution of the ISV, the test data was analyzed. The analysis results and supporting data are documented in the AP1000 HFE Integrated System Validation Report (Reference 3). The ISV results demonstrate, via the successful management of complex operational and accident scenarios, that the MCR design, Human-System Interface resources, procedures, MCR staffing, and operator training are adequate to support safe operation. The Human Engineering Discrepancies (HEDs) have been identified and entered into the Human Factors Tracking System database as required by the ISV plan. A report from the Human Factors Tracking System is found in Reference 4, "Confirmation that Human Factors Engineering Discrepancies are Entered in the Human Factors Tracking System."

**ITAAC Finding Review**

In accordance with plant procedures for ITAAC completion, SCE&G performed a review of all 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 review is documented in the ITAAC Completion Package for ITAAC 3.2.00.01c.i (Reference 5) and available for NRC inspection.

**ITAAC Completion Statement**

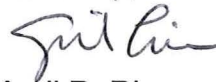
Based on the above information, SCE&G hereby notifies the NRC that ITAAC 3.2.00.01c.i was performed for VCSNS Unit 3 and that the prescribed acceptance criteria are met.

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.

We request NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99(e)(1).

If there are any questions, please contact Ryder Thompson at (803) 941-9812.

Sincerely,



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**Attachment 1**

**References (available for NRC inspection):**

1. NEI 08-01, Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52.
2. APP-OCS-GEH-320, AP1000 Human Factors Engineering Integrated System Validation Plan
3. APP-OCS-GER-320, AP1000 Human Factors Engineering Integrated System Validation Report
4. LTR-OPB-WAPP-16-230, Confirmation that Human Engineering Discrepancies are Entered in the Human Factors Tracking System
5. ITAAC 3.2.00.01c.i Completion Package