Example D52 – Human Factors Engineering Verification and Validation ITAAC Closure Notification

XX/YY/ZZZZ (Date)

To: NRC

From: {Name of Licensee}
{Site Name and Unit #}
{Docket #}

Subject: Completion of ITAAC 3.2.00.01a

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 {Site Name and Unit #} Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 3.2.00.01a to verify that a report exists and concludes that task support verification was conducted in conformance with the implementation plan and includes verification that the information and controls provided by the Human-System Interface (HSI) match the display and control requirements generated by the function-based task analyses and the operational sequence analyses. The closure process for this ITAAC is based on the guidance described in NEI 08-01 (Reference 1).

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:

a) a) HSI Task support verification.

Inspections, Tests, Analyses:

a) An evaluation of the implementation of the HSI task support verification will be performed.

Acceptance Criteria:

a) A report exists and concludes that task support verification was conducted in conformance with the implementation plan and includes verification that the information and controls provided by the HSI match the display and control requirements generated by the function-based task analyses and the operational sequence analyses.

ITAAC Determination Basis

Multiple ITAAC are performed to confirm that the HFE verification and validation program, as described in Chapter 18 of the AP1000 DCD, is performed in accordance with the HFE verification and validation implementation plans. The subject ITAAC performs an evaluation of the implementation of the HSI task support verification, ~~which is performed as part of the Integrated System Validation (ISV).~~ Following the execution of the ~~ISV~~ task support verification plan, an analysis of the methodology, the

scope ~~of the ISV (including the ISV operating scenarios),~~ and the data results ~~and an analysis of the ISV was~~~~were~~ performed and

documented. These evaluations concluded that the ~~ISV~~ verification was conducted in conformance with the Human Factors Engineering (HFE) ~~Integrated System Validation (ISV)~~ HSI task support verification Plan (Reference 5) and concluded that the controls, alarms and displays identified in the task analysis have been incorporated in the Main Control Room (MCR) design.~~, HSI Resources, procedures, MCR staffing and operator training are adequate to support safe operation.~~ Significant Human Engineering Deficiencies (HEDs) were resolved~~, and limitations of the ISV implementation and execution were recorded and addressed~~ in accordance with the implementation plan.

The results of the HSI task support verification ~~ISV~~ are documented in the AP1000 Human Factors Engineering HSI task support verification plan~~Integrated System Validation Report~~ (Reference 3) and the AP1000 Human Factors Engineering HSI task support verification~~Integrated System Validation~~ Results Data Report, (Reference 4) and conclude that the ~~operating scenarios~~ verification activity described in the implementation plan for HSI task support verification ~~integrated system validation were~~ was executed in conformance with the plan, and verify that the ~~information and controls provided by the HSI~~design specifications match the display, alarm and control requirements generated by the function-based task analyses and the operational sequence analyses. In addition, ~~crew performance was assessed, and~~ HEDs were identified and addressed in accordance with the implementation plan. The overall results are discussed in terms of ~~the~~ safety and ~~operability of the AP1000 Main Control Room~~conformance with the HSI task support verification plan.

ITAAC Finding Review

In accordance with XXX-XXX-XXX (project specific procedure for ITAAC completion), {Licensee} 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 review is documented in the ITAAC Completion Package for ITAAC 3.2.00.01a (Reference 2) and available for NRC inspection.

ITAAC Completion Statement

Based on the above information, [Licensee] hereby notifies the NRC that ITAAC 3.2.00.01a was performed for Plant/Unit XYZ, and that the prescribed acceptance criteria are met.

Systems, structures and components verified as part 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.

If there are any questions, please contact XXX at xxx-xxx-xxxx.

Sincerely,

{Signature of Licensee Representative}

November 1, 2012

{Typed Name of Licensee Representative}
{Title of Licensee Representative}

References (available for NRC inspection)

1. NEI 08-01, Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52.
2. ITAAC 3.2.00.01a Completion Package
3. APP-OCS-GER-~~320~~220, "AP1000 Human Factors Engineering Integrated System Validation Report"
4. APP-OCS-GER-~~321~~221, "AP1000 Human Factors Engineering Integrated System Validation Results Data Report"
5. APP-OCS-GEH-~~320~~220, "AP1000 Human Factors Engineering Integrated System Validation Plan"