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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3 and Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.6.03.04b [Index Number 602]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of 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 2.6.03.04b [Index Number 602]. This ITAAC confirms that the battery chargers, regulating transformers, and isolation fuses prevent credible faults from propagating into the Class 1E dc and Uninterruptible Power Supply System (IDS). 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.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company 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 Tom Petrak at 706-848-1575.

Respectfully submitted,

Michael J. Yox
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion of ITAAC 2.6.03.04b [Index Number 602]

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Southern Nuclear Operating Company
ND-21-0054
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion of ITAAC 2.6.03.04b [Index Number 602]

ITAAC Statement

Design Commitment

4.b) The IDS provides electrical isolation between itself and the non-Class 1E ac power system and the non-Class 1E lighting in the MCR.

Inspections/Tests/Analyses

Type tests, analyses, or a combination of type tests and analyses of the isolation devices will be performed.

Acceptance Criteria

A report exists and concludes that the battery chargers, regulating transformers, and isolation fuses prevent credible faults from propagating into the IDS.

ITAAC Determination Basis

A combination of type testing and analyses of the isolation devices was performed to verify that the Class 1E dc and Uninterruptible Power Supply System (IDS) provides electrical isolation between itself and the non-Class 1E ac power system and the non-Class 1E lighting in the Main Control Room (MCR). A report exists and concludes that the battery chargers, regulating transformers, and isolation fuses prevent credible faults from propagating into the IDS.

Type testing and analyses were performed on battery chargers, regulating transformers, and isolation fuses in accordance with the Institute of Electrical and Electronics Engineers (IEEE) Standard 384 (Reference 1). Short circuit and coordination analyses were performed in accordance with IEEE Standards 141 and 242 (References 2 and 3, respectively) to determine maximum credible faults, time to clear the faults, and proper isolation.

The testing and supporting analyses demonstrated that the most severe credible faults applied to the non-Class 1E side of the isolation component did not degrade the intended safety function of IDS. Type tests were performed under conditions which the non-Class 1E side of the isolation component was exposed to the calculated maximum credible fault while the Class 1E side of the isolation component was monitored for perturbations.

Short circuit and coordination analyses are documented in the "Coordination Study – Class 1E 208Y/120V AC System" (Reference 4) and "Class 1E (IDS) 250V DC System – Coordination Study" (Reference 5) and demonstrate adequate overcurrent protective device ratings and selective coordination. Electrical isolation type testing and analyses are documented in the "Analysis/Compliance of the IDS with Respect to the Specific Electrical Isolation Criteria in IEEE 384-1981" report (Reference 6) and conclude that the battery chargers, regulating transformers, and isolation fuses prevent credible faults from propagating into the IDS.

References 4 through 6 are available for NRC inspection as part of the Unit 3 and Unit 4 ITAAC 2.6.03.04b Completion Package (Reference 7).

ITAAC Finding Review

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. The ITAAC completion review is documented in the Vogtle Unit 3 and Unit 4 ITAAC Completion Package for ITAAC 2.6.03.04b (Reference 7) and is available for NRC inspection.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.6.03.04b was performed for VEGP Unit 3 and Unit 4 and that the prescribed acceptance criteria were 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. IEEE 384-1981, "IEEE Standard Criteria for Independence of Class 1E Equipment"
2. IEEE Standard 141, "IEEE Recommended Practice for Electrical Power Distribution for Industrial Plants, 1993"
3. IEEE Standard 242, "IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems, 1986"
4. APP-IDS-E0C-010 Rev 1, "Coordination Study – Class 1E 208Y/120V AC System"
5. APP-IDS-E0C-011 Rev 4, "Class 1E (IDS) 250V DC System – Coordination Study"
6. APP-IDS-E0C-020 Rev 4, "Analysis/Compliance of the IDS with Respect to the Specific Electrical Isolation Criteria in IEEE 384-1981"
7. 2.6.03.04b-U0-CP-Rev0, ITAAC Completion Package