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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.5.02.07e [Index Number 538]

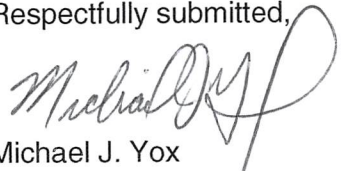
Ladies and Gentlemen:

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 4 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) 2.5.02.07e [Index Number 538] for verification that a test report exists and concludes that the isolation devices prevent credible faults from propagating into the Protection and Safety Monitoring System (PMS) from non-safety equipment that provides interlocks for PMS test functions. 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 (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

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.5.02.07e [Index Number 538]

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**Southern Nuclear Operating Company
ND-16-2517
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.5.02.07e [Index Number 538]**

ITAAC Statement

Design Commitment:

7.e) The PMS receives signals from non-safety equipment that provides interlocks for PMS test functions through isolation devices.

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 isolation devices prevent credible faults from propagating into the PMS.

ITAAC Determination Basis

Type testing and analysis of isolation devices were performed to verify that devices prevent credible faults from propagating into the Protection and Safety Monitoring System (PMS) from non-safety equipment that provides interlocks for PMS test functions. The type testing, governed by IEEE 384-1981(Reference 1), was performed on isolation barrier components (relay isolation) to qualify the barrier components and the barrier component protection utilized in the isolation barrier assemblies.

The testing demonstrated that the most severe credible faults injected into the non-Class 1E side of the isolation barrier did not degrade the intended safety function. This was accomplished by completing the prescribed tests under conditions where the non-Class 1E side of the isolation barrier is exposed to credible faults in the form of 580 VAC 65 kA and 300 VDC 40kA for differential faults and 580 VAC 50 A and 300 VDC 50 A for common-mode, while the Class 1E side of the isolation barrier was monitored for perturbations.

Surge testing was also performed in accordance with International Electrotechnical Commission (IEC) Standard IEC 61000-4 (Reference 2). The isolation devices were subjected to ± 2 kVDC surge (combination wave), ± 2 kVDC surge (ring wave), and ± 2 kVDC surge (Electrical Fast Transient).

The results of the tests and analysis are documented in APP-PMS-VBR-015, "AP1000 Protection and Safety Monitoring System Isolation Summary Report for Use in the AP1000 Plant" (Reference 3) and conclude that the isolation devices prevent credible faults from propagating into the PMS.

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 one (1) open Notice of Nonconformance (NON) associated with this ITAAC:

- NON 99900404/2015-204-01

The NON is open; however, the corrective actions for the finding have been completed. The ITAAC completion review document number is included in the Vogtle Unit 4 ITAAC Completion Package for ITAAC 2.5.02.07e (Reference 4) and available for Nuclear Regulatory Commission (NRC) inspection.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.5.02.07e was performed for Vogtle Unit 4 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.

References (available for NRC inspection)

1. IEEE Standard 384-1981, "IEEE Standard Criteria for Independence of Class 1E Equipment and Circuits"
2. IEC Standard 61000-4, "Electromagnetic Compatibility (EMC) – Part 4: Testing and Measurements Techniques"
3. APP-PMS-VBR-015 Revision 1, "AP1000 Protection and Safety Monitoring System Isolation Summary Report for Use in the AP1000 Plant"
4. SVP_SV0_004272, Attachment 1, "Submittal of Inspections, Tests, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 4 ITAAC 2.5.02.07e [COL Index Number 538] (Isolation Devices for the Prevention of Fault Propagation into PMS from Interlock Devices)"