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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.5.02.10 [Index Number 549]

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 4 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.5.02.10 [Index Number 549], for verifying the methodology and input parameters used to determine the Protection and Safety Monitoring System (PMS) setpoints. 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 is 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 Tom Petrak at 706-848-1575.

Respectfully submitted,

Kellie Roberts for MJY

Michael J. Yox
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4 ITAAC Closure Notification on Completion of 2.5.02.10 [Index Number 549]

MJY/MAC/sfr

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**Southern Nuclear Operating Company**
**ND-19-1522**
**Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4**
**ITAAC Closure Notification on Completion of ITAAC 2.5.02.10 [Index Number 549]**

**ITAAC Statement**

Design Commitment

10. Setpoints are determined using a methodology which accounts for loop inaccuracies, response testing, and maintenance or replacement of instrumentation.

Inspections/Tests/Analyses

Inspection will be performed for a document that describes the methodology and input parameters used to determine the PMS setpoints.

Acceptance Criteria

A report exists and concludes that the PMS setpoints are determined using a methodology which accounts for loop inaccuracies, response testing, and maintenance or replacement of instrumentation.

**ITAAC Determination Basis**

An inspection was performed to verify that the Protection and Safety Monitoring System (PMS) setpoints are determined using a methodology which accounts for loop inaccuracies, response testing, and maintenance or replacement of instrumentation.

Results of the inspections noted below are documented in 2.5.02.10-U4-SumRep-Rev 3, "Unit 4 Protection and Safety Monitoring System Setpoint Methodology Summary Report" (Reference 1).

WCAP-16361-P, "Westinghouse Setpoint Methodology for Protection Systems – AP1000" (Reference 2), was inspected and identifies the methodology used to determine the overall instrument uncertainty (i.e. loop inaccuracy) for a Reactor Trip System (RTS) and Engineered Safeguards Features Actuation System (ESFAS) function. Reference 2 provides specific instructions for calculating instrument and loop uncertainty setpoints consistent with ANSI/ISA-67.04 and Regulatory Guide 1.105, Revision 3. An inspection of the RTS/ESFAS function setpoint and uncertainty calculations was performed and confirmed that the calculations employed the WCAP-16361-P methodology to determine loop inaccuracies, as documented in reference 1.

Section 5.5.14 of the AP1000 Technical Specifications (TS) requires the nominal trip setpoint, As-Found Tolerance (AFT), and As-Left Tolerance (ALT) for each TS-required automatic protection instrumentation function be calculated in conformance with WCAP-16361-P. These requirements are used to determine if maintenance or replacement of instrumentation is needed. If maintenance or replacement is required, the "Operational Readiness Work Management" procedure (Reference 3), and "Plant Modification and Configuration Change Processes" (Reference 4), account for any impacts on instrumentation or issued calculations. An inspection of the RTS/ESFAS function setpoint and uncertainty calculations was performed and confirmed these calculations did employ the WCAP-16361-P methodology for AFT and ALT, as documented in reference 1.

The methodology utilized for response time determination is per UFSAR Chapter 15 criteria (Reference 5). Response testing is conducted within the factory acceptance and preoperational test program per UFSAR Chapter 14 (Reference 5). UFSAR section 15.0.6 (Reference 5), discusses the PMS time delay methodology that is assumed in the accident analysis for RTS and equipment actuated by ESFAS functions. An inspection of "SV4-PMS-T1-501, "AP1000 Protection and Safety Monitoring system Preoperational and Component Test Specification" (References 6) and APP-PMS-T5-001, "Protection and Safety Monitoring System Test Plan" (Reference 7), was performed to confirm that the PMS preoperational test program includes the response time testing as required. Attachment A of 2.5.02.10-U4-SumRep-Rev 3 provides a cross-reference of each applicable PMS function to its test case.

References 1 through 7 are available for NRC inspection as part of ITAAC 2.5.02.10 Unit 4 Completion Package (Reference 8).

**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 review is documented in the ITAAC Completion Package ITAAC 2.5.02.10 (Reference 8) and is available for NRC review.

**ITAAC Completion Statement**

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.5.02.10 was performed for VEGP 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. 2.5.02.10-U4-SumRep-Rev 3, "Unit 4 Protection and Safety Monitoring System Setpoint Methodology Summary Report"
2. WCAP-16361-P, Rev 1, February 2011 "Westinghouse Setpoint Methodology for Protection Systems – AP1000"
3. B-ADM-WCO-001, "Operational Readiness Work Management"
4. NMP-ES-084-001, "Plant Modification and Configuration Change Processes"
5. VEGP 3&4 UFSAR,
   - Section 14.2.9.1.12, "Protection and Safety Monitoring System Testing"
   - Section 15.0.6, "Protection and Safety Monitoring System Setpoints and Time Delays to Trip Assumed in Accident Analyses"
6. SV4-PMS-T1-501, Rev 2, "AP1000 Protection and Safety Monitoring System Preoperational and Component Test Specification"
7. APP-PMS-T5-001, Rev 5, "Protection and Safety Monitoring System Test Plan"
8. 2.5.02.10-U4-CP-Rev 0, ITAAC Completion Package