Southern Nuclear

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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3
ITAAC Closure Notification on Completion of ITAAC 2.5.02.12 [Index Number 551]

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 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.5.02.12 [Index Number 551] for inspection of the process used to design, test, install, and maintain the Protection and Safety Monitoring System (PMS) software. The closure process for this ITAAC is based on the guidance described in Nuclear Energy Institute (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 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 ITAAC Closure Notification on Completion of 2.5.02.12 [Index Number 551]

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Southern Nuclear Operating Company
ND-19-1367
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3
ITAAC Closure Notification on Completion of ITAAC 2.5.02.12 [Index Number 551]

ITAAC Statement

Design Commitment

12. The PMS software was designed, tested, installed, and maintained using a process which incorporates a graded approach according to the relative importance of the software to safety and specifies requirements for:

a) Software management including documentation requirements, standards, review requirements, and procedures for problem reporting and corrective action.

b) Software configuration management including historical records of software and control of software changes.

c) Verification and validation including requirements for reviewer independence.

Inspections/Tests/Analyses

An Inspection was performed of the process used to design, test, install, and maintain the PMS software.

Acceptance Criteria

A report exists and concludes that the process establishes a method for classifying the PMS software elements according to their relative importance to safety and specifies requirements for software assigned to each safety classification. The report also concludes that requirements are provided for the following software development functions:

a) Software management including documentation requirements, standards, review requirements, and procedures for problem reporting and corrective action. Software management requirements may be documented in the software quality assurance plan, software management plan, software development plan, software safety plan, and software operation and maintenance plan; or these requirements may be combined into a single software management plan.

b) Software configuration management including historical records of software and control of software changes. Software configuration management requirements are provided in the software configuration management plan.

c) Verification and validation including requirements for reviewer independence. Verification and validation requirements are provided in the verification and validation plan.

ITAAC Determination Basis

An inspection was performed to verify that the Protection and Safety Monitoring System (PMS) software was designed, tested, installed, and maintained using a process which incorporates a graded approach according to the relative importance of the software to safety and specifies requirements for software management including documentation requirements, standards, review requirements, procedures for problem reporting and corrective action, software configuration management (including historical records of software and control of software changes), and verification and validation including requirements for reviewer independence.

PMS was developed by the vendor using defined processes per WCAP-16096-P-A (Reference 1) as supplemented by WCAP-15927-P (Reference 2). The defined processes are further incorporated into the vendor's processes and procedures that include software management, software configuration management, and verification and validation.

An inspection of the vendor's processes and procedures used to design, test, install, and maintain the PMS software was performed and it was concluded that the process established a method for classifying the PMS software elements according to their relative importance to safety and specified requirements for software assigned to each safety classification. The inspection also concluded that requirements were provided for the following software development functions:

- Software management including documentation requirements, standards, review requirements, procedures for problem reporting and corrective action,
- Software configuration management (including historical records of software and control of software changes),
- Software configuration management requirements are provided in the software configuration management plan,
- Verification and validation (including requirements for reviewer independence),
- Verification and validation (V&V) requirements are provided in the verification and validation plan, and
- Software management requirements are documented in the AP1000 I&C Protection and Safety Monitoring System Project, Software Development and Security Plans.

Technical report APP-GW- GLR-155 "AP1000 Design Certification ITAAC 2.5.02.12: The Process Used to Design, Test, Install, and Maintain the PMS Software Technical Report" (Reference 3) documents the results of the inspection and includes references to vendor processes and procedures that define each of the Acceptance Criteria.

Software maintenance will continue post software delivery. The vendor will continue to perform the software maintenance functions (management, configuration management and V&V) according to the above processes and WCAP-16096-P-A (Reference 1).

References 1 through 3 are available for NRC inspection as part of the ITAAC 2.5.02.12 Unit 3 Completion Package (Reference 4).

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 one closed (1) Violation associated with this ITAAC.

1. VIO 05200025/2012009-01 & 05200026/2012009-01 (Closed) – Contrary to the above, as of May 25, 2012, the licensee failed to assure that applicable regulatory requirements and the design basis, as defined in § 50.2 and as specified in the license application, for the Protection and Safety Monitoring System, were correctly translated into specifications, drawings, procedures, and instructions.
    a. The ITAAC completion review determined that all corrective actions associated with this finding are completed and closed. NRC closure of this finding is documented in NRC Inspection Report 05200025/2013-004 & 05200026/2013-004.

The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.5.02.12 (Reference 4) and available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.5.02.12 was performed for VEGP 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.

References (available for NRC inspection)

1. WCAP-16096-P-A Rev. 5, "Software Program Manual"
2. WCAP-15927-P Rev. 7, "Design Process for AP1000 Common Q Safety Systems"
3. APP-GW-GLR-155, Rev. 1, "AP1000 Design Certification ITAAC 2.5.02.12: The Process Used to Design, Test, Install, and Maintain the PMS Software Technical Report"
4. ITAAC 2.5.02.12-U3-CP-Rev0, "ITAAC Completion Package"