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Michael J. Yox
Regulatory Affairs Director
Vogtle 3 & 47825 River Road
Waynesboro, GA 30830
706-848-6459 tel
myox@southernco.comDocket Nos.: 52-025
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10 CFR 52.99(c)(3)U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3 and Unit 4
Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load
Item 2.5.01.03a [Index Number 511]

Ladies and Gentlemen:


Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of April 1, 2019, Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4 Uncompleted Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.5.01.03a [Index Number 511] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing this ITAAC. Southern Nuclear Operating Company will, at a later date, provide additional notifications for ITAAC that have not been completed 225-days prior to initial fuel load.

This notification is informed by 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. In accordance with NEI 08-01, this notification includes ITAAC for which required inspections, tests, or analyses have not been performed or have been only partially completed. All ITAAC will be fully completed and all Section 52.99(c)(1) ITAAC Closure Notifications will be submitted to NRC to support the Commission finding that all acceptance criteria are met prior to plant operation, as required by 10 CFR 52.103(g).

This letter contains no new NRC regulatory commitments.

If there are any questions, please contact Tom Petrak at 706-848-1575.

Respectfully submitted,

Michael J. Yox
Regulatory Affairs Director Vogtle 3 & 4Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.5.01.03a [Index Number 511]

MJY/LBP/sfr

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To:

Southern Nuclear Operating Company/ Georgia Power Company

Mr. D. A. Bost (w/o enclosures)

Mr. D. L. McKinney (w/o enclosures)

Mr. M. D. Meier (w/o enclosures)

Mr. D. H. Jones (w/o enclosures)

Mr. J. B. Klecha

Mr. G. Chick

Mr. M. J. Yox

Mr. A. S. Parton

Ms. K. A. Roberts

Mr. T. G. Petrak

Mr. W. A. Sparkman

Mr. C. T. Defnall

Mr. C. E. Morrow

Mr. J. L. Hughes

Ms. K. M. Stacy

Ms. A. C. Chamberlain

Mr. J. C. Haswell

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cc:

Nuclear Regulatory Commission

Mr. W. Jones (w/o enclosures)

Mr. F. D. Brown

Ms. J. M. Heisserer

Mr. C. P. Patel

Mr. G. J. Khouri

Ms. S. E. Temple

Mr. N. D. Karlovich

Mr. A. Lerch

Mr. C. J. Even

Mr. B. J. Kemker

Ms. N. C. Coover

Mr. C. Welch

Mr. I. Cozens

Mr. J. Gaslevic

Mr. V. Hall

Oglethorpe Power Corporation

Mr. R. B. Brinkman

Mr. E. Rasmussen

Municipal Electric Authority of Georgia

Mr. J. E. Fuller

Mr. S. M. Jackson

Dalton Utilities

Mr. T. Bundros

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Westinghouse Electric Company, LLC

Dr. L. Oriani (w/o enclosures)

Mr. D. C. Durham (w/o enclosures)

Mr. M. M. Corletti

Ms. L. G. Iller

Ms. J. Monahan

Mr. J. L. Coward

Other

Mr. J. E. Hesler, *Bechtel Power Corporation*

Ms. L. Matis, *Tetra Tech NUS, Inc.*

Dr. W. R. Jacobs, Jr., Ph.D., *GDS Associates, Inc.*

Mr. S. Roetger, *Georgia Public Service Commission*

Ms. S. W. Kernizan, *Georgia Public Service Commission*

Mr. K. C. Greene, *Troutman Sanders*

Mr. S. Blanton, *Balch Bingham*

**Southern Nuclear Operating Company
ND-19-0279
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.5.01.03a [Index Number 511]**

ITAAC Statement

Design Commitment

3.a) The signal processing hardware of the DAS uses input modules, output modules, and microprocessor or special purpose logic processor boards that are different than those used in the PMS.

Inspections, Tests, Analyses

Inspection of the as-built DAS and PMS signal processing hardware will be performed.

Acceptance Criteria

The DAS signal processing equipment uses input modules, output modules, and microprocessor or special purpose logic processor boards that are different than those used in the PMS. The difference may be a different design, use of different component types, or different manufacturers.

ITAAC Completion Description

Inspections are performed to confirm that the as-built signal processing hardware of the Diverse Actuation System (DAS) uses input modules, output modules, and microprocessor or special purpose logic processor boards that are different from those used in the Protection and Safety Monitoring System (PMS). The results of the inspections verify that the DAS utilizes both a different design and different component types of signal processing hardware than that used in the PMS.

Inspection of the DAS and PMS design specifications and topical reports verifies that the DAS and PMS utilize both a different design and different component types of signal processing hardware. The design of the DAS, documented in the DAS Design Specification (Reference 1), utilizes an Advanced Logic System (ALS) hardware configuration with input, output, core logic, and communications boards. The ALS is a logic-based platform that does not utilize a microprocessor or software for operation, but instead relies on simple hardware architecture. The logic is implemented using field-programmable gate array technology. The ALS design is further described in the ALS Topical Report (Reference 2). This is different from the design of the PMS, documented in the PMS Design Specification (Reference 3), which utilizes the Common Qualified (Q) platform with the AC160 controller with multiprocessing capability for signal processing. The Common Q platform is a computer system consisting of a set of commercial-grade hardware and software components dedicated and qualified for use in nuclear power plants. This design is further described in the Common Q Platform Topical Report (Reference 4).

Inspections of the as-built DAS and PMS cabinets (References 5 and 6) are performed at Westinghouse prior to shipment to the plant site in accordance with NEI 08-01 Section 9.5 (Reference 17) because it is impractical to inspect the signal processing hardware within the cabinets after the cabinets are installed on site. The inspections use the system cabinet configuration drawings (References 7 and 8) and confirm that the as-built configuration of the DAS equipment uses different component types of signal processing hardware than that of the PMS. The as-built drawings for the cabinet configuration for the DAS and PMS document that

the as-built cabinets conform to the design, thereby utilizing different design and component types of signal processing hardware.

Upon arrival at the plant site, receipt inspections of the DAS and PMS cabinets are performed and documented in Material Receiving Reports (References 9 through 12) and confirm each cabinet was received and arrived in an acceptable condition with no opens items or corrective actions required. The cabinets are subsequently installed in their final as-built location and Installation Records (References 13 and 14) confirm the cabinets contain no evidence to indicate that the signal processing hardware was adversely impacted during installation.

References 1 through 14 confirm that the DAS signal processing equipment uses input modules, output modules, and micro-processor or special purpose logic processor boards that are different than those used in the PMS.

References 1 through 14 are available for NRC inspection as part of Unit 3 and Unit 4 ITAAC 2.5.01.03a Completion Packages (References 15 and 16, respectively).

List of ITAAC Findings

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This review found there are no relevant ITAAC findings associated with the ITAAC.

References (available for NRC review)

1. SV3(4)-DAS-J4-001, "AP1000 Diverse Actuation System System Design Specification"
2. 6002-00301-NP, "Advanced Logic System Topical Report"
3. SV3(4)-PMS-J4-020, "AP1000 System Design Specification for the Protection and Safety Monitoring System"
4. WCAP-16097-P-A, "Common Qualified Platform Topical Report"
5. SV3(4)-DAS-VQQ-001, "Quality Release & Certificate of Conformance"
6. SV3(4)-PMS-VQQ-001, "Quality Release & Certificate of Conformance"
7. SV3(4)-DAS-J8Y-001, "Vogtle Unit 3(4) AP1000 Diverse Actuation System Cabinet Configuration Drawing Package"
8. SV3(4)-PMS-J8Y-001, "Vogtle Unit 3(4) AP1000 Protection and Safety Monitoring System Cabinet Configuration Drawing Package"
9. J132175-MRR-15-01219, Unit 3 DAS Material Receiving Report
10. XXXXXX-MRR-XX-XXXX, Unit 4 DAS Material Receiving Report
11. J132175-MRR-16-02318, Unit 3 PMS Material Receiving Report
12. XXXXXX-MRR-XX-XXXX, Unit 4 PMS Material Receiving Report
13. Unit 3(4)-DAS-XXX Installation Records
14. Unit 3(4)-PMS-XXX Installation Records
15. 2.5.01.03a-U3-CP-Rev 0, Completion Package
16. 2.5.01.03a-U4-CP-Rev 0, Completion Package
17. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"