Southern Nuclear

Michael J. Yox
Regulatory Affairs Director
Vogtle 3 & 4

7825 River Road
Waynesboro, GA 30830
706-848-6459

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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of 2.6.03.04j [Index Number 876]

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 2.6.03.04j [Index Number 876] for type tests and analyses of isolation devices in the Class 1E dc and Uninterruptible Power Supply System. 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.

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 4 ITAAC Closure Notification on Completion of 2.6.03.04j [Index Number 876]

MJY/DJG/sfr

To:

Southern Nuclear Operating Company/ Georgia Power Company

Mr. Peter P. Sena III (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. G. Chick
Mr. M. Page
Mr. P. Martino
Mr. M. J. Yox
Mr. A. S. Parton
Ms. K. A. Roberts
Mr. T. G. Petrak
Mr. C. T. Defnall
Mr. C. E. Morrow
Mr. J. L. Hughes
Mr. S. Leighty
Ms. A. C. Chamberlain
Mr. J. C. Haswell
Document Services RTYPE: VND.LI.L06
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cc:

Nuclear Regulatory Commission

Mr. W. Jones (w/o enclosures)
Mr. F. D. Brown
Mr. C. P. Patel
Mr. G. J. Khouri
Ms. S. E. Temple
Mr. N. D. Karlovich
Mr. A. Lerch
Mr. C. J. Even
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Ms. N. C. Coovert
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Ms. T. Lamb
Mr. M. Webb
Mr. T. Fredette
Mr. C. Weber
Mr. S. Smith
Mr. C. Santos

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

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
Mr. Z. S. Harper
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-19-1195
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 4
ITAAC Closure Notification on Completion of 2.6.03.04j [Index Number 876]

ITAAC Statement

Design Commitment

4.j) The IDS provides electrical isolation between the non-Class 1E battery monitors and the Class 1E battery banks.

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 monitor fuse isolation panels prevent credible faults from propagating into the Class 1E portions of the IDS.

ITAAC Determination Basis

Type tests and analyses of the Class 1E dc and Uninterruptible Power Supply System (IDS) electrical isolation devices between the non-Class 1E battery monitors and the Class 1E battery banks were performed to verify the battery monitor fuse isolation panels prevent credible faults from propagating into the Class 1E portions of the IDS.

Tests were performed on each type of isolation device utilized in the design of the battery monitor connections to the Class 1E batteries. The tests were performed to qualify the devices in accordance with IEEE 384-1981 and Regulatory Guide 1.75 (References 1 and 2). The isolation devices were subjected to the following test conditions on the non-Class 1E side: 1) maximum credible AC and DC voltage and current transients, 2) shorts, 3) grounds, and 4) open circuits. The Class 1E side of each protective device was monitored during testing to verify the fault condition did not result in circuit degradation beyond an acceptable level, and no electrical disturbance was propagated. The results of the type tests are provided in SV4-IDS-VTR-001, SV4-IDS-VTR-002, SV4-IDS-VTR-003, and SV4-IDS-VTR-004 (References 3, 4, 5 and 6) and confirm each device configuration provides the isolation necessary to prevent credible faults from propagating into the Class 1E portions of the IDS.

Analyses were performed to confirm each non-Class 1E interface of the battery monitors with the Class 1E IDS battery banks complies with the specific electrical isolation criteria provided in section 7 of IEEE 384-1981 (Reference 1) and Regulatory Guide 1.75 (Reference 2).
The results of the analyses are provided in APP-IDS-E0C-020 (Reference 7) and conclude the battery monitor fuse isolation panels prevent credible faults from propagating into the Class 1E portions of the IDS.

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

ITAAC Finding Review

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

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.6 03.04j was performed for Vogtle Unit 4 and that the prescribed acceptance criteria are met. Systems, structures, and components verified as part this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

We request NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99(e)(1).

References (available for NRC inspection)

1. IEEE 384-1981, "IEEE Standard Criteria for Independence of Class 1E Equipment and Circuits"
2. Regulatory Guide 1.75, Revision 2, 9/78, "Physical Independence of Electric Systems"
3. SV4-IDS-VTR-001, Revision 0, "Isolation Barrier Maximum Credible Fault Test Report (For WEC-NPO Supplied Equipment)"
4. SV4-IDS-VTR-002, Revision 0, "Isolation Barrier Short Circuit/Open Circuit/Grounded Circuit Test Report (For WEC-NPO Supplied Equipment)"
5. SV4-IDS-VTR-003, Revision 0, "Isolation Barrier Short Circuit/Open Circuit/Grounded Circuit Test Report (For WEC-NPO Supplied Equipment)"
6. SV4-IDS-VTR-004, Revision 0, "Isolation Barrier Maximum Credible Fault Test Report (For WEC-NPO Supplied Equipment)"
7. APP-IDS-E0C-020, Revision 2, "Analysis/Compliance of the IDS With Respect to the Specific Electrical Isolation Criteria in IEEE 384-1981"
8. 2.6.03.04j-U4-CP-Rev 0, ITAAC Completion Package