Vogtle PEmails

From: Hoellman, Jordan
Sent: Wednesday, March 22, 2017 7:45 AM
To: Vogtle PEmails
Cc: Patel, Chandu
Subject: SNC ITAAC Challenges Handout for 3-23-17 Public Meeting
Attachments: ITAAC Challenges - SNC response_revised.pdf; Attachment 1 - Hydrostatic Testing.pdf; Attachment 2 - UIN 89 re-word.pdf; Attachment 3 - Reg. Guide 1.215 Code references.pdf; Attachment 4- Reference ITAAC Demo D-15.pdf; Attachment 4.1 UIN 520 (Reference ITAAC).pdf; Attachment 5 - FA UIN (1).pdf; Attachment 6 - Functional Arrangement Demo.pdf; Attachment 7 - (617).pdf; Attachment 8 (618).pdf; Attachment 9 (619).pdf; Attachment 10 - Proposed Code Year and addenda example.pdf

Attached is the SNC response to current ITAAC challenges that will be used during the public meeting on 3/23/2017. There is no SUNSI information in the SNC documents.

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Subject: SNC ITAAC Challenges Handout for 3-23-17 Public Meeting
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Files	Size	Date & Time
MESSAGE	184	3/22/2017 7:45:32 AM
ITAAC Challenges - SNC response_revised.pdf	482836	
Attachment 1 - Hydrostatic Testing.pdf	133713	
Attachment 2 - UIN 89 re-word.pdf	221359	
Attachment 3 - Reg. Guide 1.215 Code references.pdf	568597	
Attachment 4- Reference ITAAC Demo D-15.pdf	627627	
Attachment 4.1 UIN 520 (Reference ITAAC).pdf	833160	
Attachment 5 - FA UIN (1).pdf	740365	
Attachment 6 - Functional Arrangement Demo.pdf	443372	
Attachment 7 - (617).pdf	201916	
Attachment 8 (618).pdf	274794	
Attachment 9 (619).pdf	275500	
Attachment 10 - Proposed Code Year and addenda example.pdf	189730	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	SNC Comment
1	ICN	RV and components Hydro	V3 74 V4 74	This hydro is the as-built installed system hydro similar to the other ASME ICN submittals. ACTION: Staff will reject based on same basis as similar prior ICNs.	It is unclear the nature of the NRC comment. The Licensee is in alignment with the NRC position that where the ITA states test, there is an as-built requirement for the components for closure (i.e. the component will be in its final location when the ICN is submitted). With respect to the RV and components hydro, the Licensee is not aligned that this test is required to be an as-built test (i.e. the system hydro). NEI 08-01 Section 9 explicitly states that testing can be performed in a location other than the final location and it is the Licensees intent to credit this hydrostatic testing that took place at the vendor location to close the ITAAC. It is the Licensees position that the ITA for ITAAC 74 does not require that the hydrostatic testing be the final system hydrostatic test. Based on page 10 of NEI 08-01 Rev 5, Corrected, it is clearly permissible to close an ITAAC requiring a test based on vendor documentation as the Reactor Vessel is a component that is mentioned. In addition, the Licensee believes it is permissible to close this ITAAC based on the vendor hydrostatic testing in accordance with section 9.5 of NEI which states as follows: *In addition, inspections of structures or components may be performed at other than the final installed location provided that doing so is standard industry practice and specified in procurement specifications, or in accordance with NRC regulatory guidance. The record of the inspection performed at the manufacturing, fabrication or other facility may serve as the record of the related ITAAC completion in the ITAAC Completion Package. The licensee need not document a separate Technical Justification in the ITAAC Completion Package.* See attachment 1 for further details on hydrostatic testing position. Licensee needs better understanding of acceptable use of exceptions for as-built testing, and Staff expectations for documentation of those exceptions in the ITAAC IDB.

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	SNC Comment
2	ICN	Located on NI	V4 684	The component has not been installed ICN is submitted incorrectly based on drawing reviews. ACTION: Staff will reject based on same basis as similar prior ICNs.	Licensee understands Staff comment. "Located On" ITAAC are encompassed by ITAAC "Consolidation LAR". ICN to be withdrawn based on pending LAR.
3	UIN	RV Head baseline Insp.	V3 89	UIN does not provide ASME Code year and addenda and article / sub article or description of activities supporting the Code case N-729-1. Does not provide sufficient info for acceptance criteria for an ICN. ACTION: Staff will reject based on same basis as similar prior UINs.	Licensee understands Staff comment, however is not aligned that reference to Code year and addenda is ***required*** to provide sufficient information. Reg. Guide 1.215 rev.2 (attachment 3), page 6 states, *"In numerous ICN examples, the determination basis simply refers to an endorsed or approved code (e.g. ASME Section III).* ***While not required****, citing the specific relevant code section(s) or article(s) used in performing the ITAAC can facilitate the staff's review of the ICN. In addition, if the code or article has been endorsed by an RG, the RG should be referenced, especially if there are specific conditions or restrictions on the use of the code or article (e.g., use of ASME Code XXX is conducted as accepted in RG 1.YYY)."* The Licensee is amenable to providing Staff amplifying information regarding code year, and addenda to facilitate reviews. See attachment (2) for specific proposed re-wording of UIN 89. A proposed example for level of detail is provided as well for future submissions (attachment 10).

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	SNC Comment
4	ICN	HFE HIS task support verification	V3 739 V4 739 S2 739 S3 739	IDB references non- public documents, it should include a brief summary of the salient information included in those documents. Discussed 2/16/17 licensee agreed to add additional references to public version of proprietary documents and evaluate possibility of providing further information to IDB. ACTION: Licensee to provide status of resubmittal of ICN.	Licensee understands and is aligned with Staff comment Vogtle ICN's shall be revised.
5	UIN	HFE	V3 751 V3 740 V4 740	IDB references non- public documents, it should include a brief summary of the salient information included in those documents. Discussed 2/16/17 licensee agreed to add additional references to public version of proprietary documents and evaluate possibility of providing further information to IDB. ACTION: Licensee to provide status of resubmittal of ICN.	Licensee understands and is aligned with Staff comment Vogtle ICN's shall be revised.

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	SNC Comment
6	UIN	DAS Manual actions reference ITAAC	V3 520	THE UIN does not provide any indication how the manual actions will be verified nor does the ITAAC referenced. IDB needs to describe how this requirement will be met by the reference ITAAC. ACTION: Discuss with licensee.	Licensee understands, however, is not aligned with Staff comment. Per NEI 08-01 rev.5 corrected section, 10.6 "Reference ITAAC" Some design control documents contain "Reference ITAAC," which are ITAAC that have an entry in the "Design Commitment" column in the DCD, but the "Inspections, Tests, Analyses" and "Acceptance Criteria" fields contain only a reference to another ITAAC. Completion of these Reference ITAAC is accomplished when the referenced ITAAC are completed. When referenced ITAAC are completed and the Reference ITAAC is ready to be closed, the licensee should submit an ITAAC Closure Notification that briefly describes the referenced ITAAC, and lists their ITAAC Closure Notification(s) as references. The first paragraph of UIN for ITAAC 520 is written to the same level of detail as first paragraph in Demo 15. These paragraphs provide a "brief description" of the referenced ITAAC, restating the design commitment(s) of the referred to ITAAC. Licensee asserts UIN 520 was written to same level of detail as NEI 08-01 Demo D-15, therefore provides sufficient level of detail. See attachments (4 & 4.1) This UIN falls within scope of ITAAC consolidation LAR.
7	UIN	Containment electrical penetrations	V3 109	The UIN does not adequately describe which method of protection will be utilized. ACTION: Discuss with licensee.	Licensee understands and is aligned with Staff comment UIN shall be revised.

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	SNC Comment
8	UIN	Functional Arrangement	V3 1	The UIN needs to tie in the definition of functional arrangement regarding being arranged in a manner capable of performing the required function. ACTION: Staff will reject based on same basis as similar prior UINs.	Licensee requires more detail than this comment. Functional Arrangement UIN and Demo 3 (PASSIVE CONTAINMENT COOLING FUNCTIONAL ARRANGEMENT 2.2 02.01) from NEI 08-01 are attached (5 & 6) for discussion. Licensee recognizes delta from NEI 08-01 (Revision 5 - Corrected), where the following verbiage was omitted in the UIN submission: *Based on guidance in NEI 08-01, Section 10.5, that was developed subsequent to the ITAAC Demonstration Project, the following sentence should be added here to the ITAAC Determination Basis for functional arrangement ITAAC:* *"This inspection encompassed all SSCs identified in the Tier 1 design description, including those in referenced tables and figures."* Does inclusion of this verbiage sufficiently address Staff comment?
9	UIN	Thermocouple sheath	V3 570	NRC Comment: UIN should include quality aspect of inspection results of sheathing (no cracking etc.) SNC does not intend to withdraw or modify the UIN. Tier 2 chapter 4 section 4.4.6.1 does not support comment as being required to complete ITAAC. UIN refers to appropriate quality inspection procedure to verify presence of sheaths. ACTION: Staff to provide additional update on this UIN. This ITAAC is similar to ITAAC that use the phrase something exists. Tier 1 states when this language is used it means the item is present and capable of performing its function as described in the design description.	No action on Licensee part.

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	SNC Comment
10	UIN	AS-built IDS fault currents vs MFGR equipment ratings	V3 617 V3 618	NEI 08-01 Demo 5 was written for ITAAC index No. 617. ITAAC index Nos. 618 and 619 are very similar and Demo 5 would be an appropriate example for these UINs. The UINs for 617 & 618 are not consistent with NEI 08-01 Section 6, which requires that UIN/ICNs describe/explain the methodology and key steps used in performing the ITA and determining that each element of the AC was met. Review of ITAAC 617 & 618 and the two UINs identify the key steps include: analysis to calculate the maximum IDS fault currents, analysis to determine the breaker/fuse minimum required interrupt capacity and analysis to complete the IDS protection coordination study (which appears to be critical in each of these ITAAC). The submitted UINs do not describe / explain the methodology and key steps to perform the short circuit (i.e. fault) analyses or circuit interrupting device coordination analyses, nor do they provide adequate reference to the appropriate IEEE standard and section(s). UIN 618 refers to the short circuit analysis document while 617 does not. Reference to section 7.1 of IEEE-946-1992 is incomplete, providing only a portion of the necessary information.	Staff comments were reviewed, and UIN's were revised based on comments. Some staff comments were difficult to understand. Drafts of revised UIN's are enclosed as attachments (7, 8, 9). Licensee understands Staff comment that where standards (IEEE, etc.) are referenced that provide multiple acceptable paths of compliance, the ITAAC closure would be required to describe which path to compliance was utilized. Licensee asserts level of detail provided in UIN's for 617, 618 and 619 was consistent with that described in DEMO 5.

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	SNC Comment
				Pursuant to UFSAR section 8.3.2.2, short circuit analyses are performed per IEEE 964 and circuit interrupting device coordination analyses are performed per IEEE 141 and 142 (or other applicable industry standards or practices). While referencing the UFSAR (UIN 618) may be acceptable for the UIN it would not be acceptable for the ICN because the method used is not specifically defined in section 8.3.2.2 of FSAR. The IDB for Demo 5 verifies the AC is met by comparing the nameplate ratings for the circuit breakers and fuses to the analytically determined fault currents (i.e. short circuit analysis). In the UIN it compares the nameplate ratings to the analyses documented in the IDS protection coordination study. All three ICNs/UINs for ITAAC 617, 618, and 619 should be written in the same format with the description for the required analyses being identical in each ICN/UIN with the appropriate references.	

ASME Component Hydrostatic Testing

NRC staff has provided comments that the ITAAC ASME component hydrostatic testing design commitment refers to the in-situ hydrostatic test for the associated system, as referenced in the N-5 data report for the system. Using the Normal Residual Heat Removal System (RNS) as an example, the Licensee asserts the in-situ hydrostatic test is not appropriate for closure of the component hydrostatic test design commitments, and that the design commitment is met by completion of the component hydrostatic test performed at the manufacturer's facility.

Example:

The RCS Inner Hot Leg Suction Motor-operated Isolation Valve is part of the RNS system and identified by tag number RNS-PL-V001A in table 2.3.6-1 as an ASME III component. RNS-PL-V001A has a design pressure of 2485 psig as referenced by form NPV-1, Certificate Holder's Data Report form for Nuclear Pumps or Valves. The RNS System itself has a design pressure of 900 psig. The in-situ system hydrostatic test of the RNS would be performed at 1.25 times the system design pressure (1125 psig). As such the RNS system hydrostatic test would not be appropriate to use as closure of the aforementioned ASME component ITAAC as described in item 4. a), in the below excerpt from VEGP 3&4 Tier 1 Material.

Excerpt from VEGP 3 & 4 Tier 1 Material Revision 3, page 2.3.6-1:

4. a) The components identified in Table 2.3.6-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.

b) The piping identified in Table 2.3.6-2 as ASME Code Section III retains its pressure boundary integrity at its design pressure.

UIN 89 – RV Head baseline inspection proposed re-wording

The pre-service visual examinations of the reactor vessel head top surface and penetration nozzles include a baseline top-of-the-head visual examination including 360 degrees around each reactor vessel head penetration nozzle; ultrasonic and eddy current examinations of the inside diameter surface of each vessel head UNS N06690 penetration nozzle; and eddy current and liquid penetrant examinations of the surface of head penetration nozzle partial penetration welds. This ITAAC requires a visual examination performed in accordance with Section 2200 and Table 1, Item B4.10 of ASME Code Case N-729-1 to acceptance standards called out in paragraph 3142.1 of said Code Case approved March 2006 (Reference 1), as modified by the conditions specified In 10CFR50.55a(g)(6)(ll)(D).

ITAAC in a COL. The ITAAC Section number is the number assigned to the ITAAC in regard to the section of the ITAAC appendix of a COL in which the ITAAC appears.

d. In numerous ICN examples, the determination basis simply refers to an endorsed or approved code (e.g. ASME Section III). While not required, citing the specific relevant code section(s) or article(s) used in performing the ITAAC can facilitate the staff's review of the ICN. In addition, if the code or article has been endorsed by an RG, the RG should be referenced, especially if there are specific conditions or restrictions on the use of the code or article (e.g., use of ASME Code XXX is conducted as accepted in RG 1.YYY).

e. Although there is no current guidance in NEI 08-01 for the content of the 10 CFR 52.103(a) scheduled fuel load notification, the staff provides the following: The initial notification should include the anticipated date (270 days in the future) of initial loading of fuel. The updates required by 10 CFR 52.103, "Operation under a combined license," should include updates to the anticipated date, if applicable. In determining the anticipated date, the licensee should use NRC guidance on timeframes for the NRC's completion of its review and the making of the 10 CFR 52.103(g) finding. This NRC guidance will be developed in the future.

f. The design and configuration control program should include an assessment and evaluation that confirm that the ITAAC potentially affected by a proposed change are still valid and that assure the functionality originally intended.

g. As described above, Appendix A to this RG includes a detailed discussion of when a license amendment is required in the ITAAC maintenance context.

2. Use of Examples in NEI 08-01

NEI 08-01 includes examples for notifications required by 10 CFR 52.99. Although these examples are intended to illustrate and reinforce the guidance in NEI 08-01, the licensee should not consider the NRC's endorsement of this industry guideline document a determination that each example applies to all licensees as it is presented and written in the guide, but rather as an example of what constitutes sufficient information for the ITAAC presented. A licensee should ensure that an example applies to its particular circumstances before implementing it. The "sufficient information," required by 10 CFR 52.99(c)(1), for any individual ITAAC closure notification can only be generically guided by the examples presented in NEI 08-01, Revision 5 - Corrected. Ultimately, "sufficient information" must be determined with respect to the specific facts surrounding each ITAAC performance and closure.

APPENDIX D-15 – EXAMPLE ITAAC CLOSURE NOTIFICATION AP1000 ITAAC 2.2.3.4 ITEM 8A

XX/YY/ZZZZ (Date)

To: NRC

From: {Name of Licensee}
{Site Name and Unit #}
{Docket #}

Subject: ITAAC Closure Notification on Completion of AP1000 ITAAC Item 2.2.3-4 Item 8.a)

The purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) in accordance with 10 CFR 52.99(c)(1) of the completion of {Site Name and Unit #} Inspection, Test, Analysis and Acceptance Criteria (ITAAC) Item 2.2.3-4 Item 8.a), "Containment isolation of the Passive Core Cooling System (PXS) lines." The closure process for this ITAAC is based on the guidance described in NEI-08-01 (Reference 1), which was endorsed by the NRC in Regulatory Guide 1.215.

ITAAC Statement

Design Commitment

The PXS provides containment isolation of the PXS lines penetrating the containment.

Inspection/Test/Analysis

See Tier 1 Material, Table 2.2.1-3, items 1 and 7.

Acceptance Criteria

See Tier 1 Material, Table 2.2.1-3, items 1 and 7

ITAAC Determination Basis

This ITAAC Design Commitment is shown to be met by reference to ITAAC for the Containment System in Tier 1, Table 2.2.1-3. The references are to Item 1 of Table 2.2.1-3 which demonstrates the functional arrangement of the containment system and to Item 7 of Table 2.2.1-3 which demonstrates the containment isolation function.

The closure letters (References 2 and 3) for Item 1 and Item 7 of Table 2.2.1-3 summarize the methodology for conducting the ITA, and the results that demonstrate that

the acceptance criteria are met. These closure letters have been submitted to the NRC and the supporting ITAAC closure activities are complete.

The records (Tests, Reports, Completed Procedures, Completed Analyses, etc.) that form the ITAAC determination basis are referenced in the closure letters for Item 1 of Table 2.2.1-3 and Item 7 of Table 2.2.1-3.

ITAAC-Finding Review

Any relevant ITAAC Findings are addressed in the closure letters for Item 1 of Table 2.2.1-3 and Item 7 of Table 2.2.1-3.

The corrective actions for each finding have been completed and each finding is closed. This review is documented in the completion packages for ITAAC 2.2.1-3 Item 1 and ITAAC 2.2.1-3 Item 7, (References 4 and 5), which are available for NRC inspection.

ITAAC Completion Statement

Based on the above information, {Licensee Name} hereby notifies the NRC that ITAAC 2.2.3-4 Item 8. a) was performed for {Site Name and Unit #}, 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).

If there are any questions, please contact {Name of Contact Person for licensee} at {Telephone Number for Contact Person}.

Sincerely,

{Signature of Licensee Representative}
{Typed Name of Licensee Representative}
{Title of Licensee Representative}

References (available for NRC inspection)

1. NEI 08-01, *Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52.*
2. Closure Letter for Item 1 of Table 2.2.1-3, Dated XXXX YY, 20ZZ
3. Closure Letter for Item 7 of Table 2.2.1-3, Dated XXXX YY, 20ZZ

M. J. Yox
Regulatory Affairs Director
Vogtle 3&4
Nuclear Development

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SOUTHERN NUCLEAR
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Docket No.: 52-025

DEC 14 2016

ND-16-2533
10 CFR 52.99(c)(3)

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3
Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load
Item 2.5.01.05 [Index Number 520]

Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of December 2, 2016, Vogtle Electric Generating Plant (VEGP) Unit 3 Uncompleted Inspection, Test, Analysis, and Acceptance Criteria (ITAAC) Item 2.5.01.05 [Index Number 520] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing ITAAC 2.5.01.05 [Index Number 520]. 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 David Woods at 706-848-6903.

Respectfully submitted,

Michael J. Yox
Regulatory Affairs Director Vogtle 3&4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3
Completion Plan for Uncompleted ITAAC 2.5.01.05 [Index Number 520]

MJY/kms/amm

To:

Southern Nuclear Operating Company/Georgia Power Company
Mr. D. A. Bost (w/o enclosures)
Mr. M. D. Meier
Mr. M. D. Rauckhorst (w/o enclosures)
Mr. D. H. Jones (w/o enclosures)
Ms. K. D. Fili
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File AR.01.02.06

cc:
Nuclear Regulatory Commission
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Mr. T. C. Brimfield
Mr. A. J. Lerch
Ms. V. L. Ordaz

Oglethorpe Power Corporation
Mr. K. T. Haynes
Mr. R. B. Brinkman

Municipal Electric Authority of Georgia
Mr. J. E. Fuller
Mr. S. M. Jackson

Dalton Utilities
Mr. T. Bundros

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Mr. R. Easterling (w/o enclosures)
Mr. J. W. Crenshaw (w/o enclosures)
Mr. F. Gill
Ms. L. Iller
Mr. J. Hopkins
Mr. D. Hawkins
Mr. C. F. Landon
Mr. A. F. Dohse
Mr. M. Y. Shaqqo
Ms. S. DiTommaso

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-16-2533
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3
Completion Plan for Uncompleted ITAAC 2.5.01.05 [Index Number 520]

Subject: Uncompleted ITAAC 2.5.01.05 [Index No. 520]

ITAAC Statement

Design Commitment

5. *The DAS manual actuation of ADS, IRWST injection, and containment recirculation can be executed correctly and reliably.*

Inspections/Tests/Analyses

See ITAAC Table 3.2-1, item 1.

Acceptance Criteria

See ITAAC Table 3.2-1, item 1.

ITAAC Completion Description

This ITAAC's Design Commitment is met by reference to ITAAC Items 1a, 1b, 1c.i, 1c.ii, 1d, and 1e in VEGP Unit 3 Combined License (COL), Appendix C, Table 3.2-1 (3.2.-1). Item 1a verifies that a report exists and concludes that a task support verification was conducted in conformance with the implementation plan and includes verification that the information and controls provided by the Human-System Interface (HSI) match the display and control requirements generated by the function-based task analyses and the operational sequence analyses. Item 1b verifies that a report exists and concludes that a Human Factors Engineering (HFE) design verification was conducted in conformance with the implementation plan and includes verification that the HSI design is consistent with the AP1000 specific design guidelines developed for each HSI resource. Item 1c.i verifies that a report exists and concludes that the test scenarios listed in the implementation plan for integrated system validation were executed in conformance with the plan and noted human deficiencies were addressed. Item 1c.ii verifies that a report exists and concludes that the test and analysis results demonstrate that the Main Control Room (MCR) operators can perform the following: heat up and start up the plant to 100% power; shut down and cool down the plant to cold shutdown; bring the plant to safe shutdown following the specified transients; bring the plant to a safe, stable state following the specified accidents. Item 1d verifies that a report exists and concludes that HFE design issue resolution verification was conducted in conformance with the implementation plan and includes verification that human factors issues documented in the design issues tracking system have been addressed in the final design. Item 1e verifies that a report exists and concludes that the plant HFE/HSI, as designed at the time of plant startup, is consistent with the HFE/HSI verified in 1.a) through 1.d) (1a,1b,1c.i,1c.ii, 1d).

The ITAAC Closure Notifications (Reference 1, 2, 3, 4, 5, and 6) summarize the methodology for conducting the Inspections/Tests/Analyses, and the results that demonstrate that the

acceptance criteria are met. These closure notifications are submitted to the NRC when the supporting ITAAC closure activities are complete.

The records (Tests, Reports, Completed Procedures, Completed Analyses, etc.) that form the ITAAC determination basis are referenced in the closure notifications for Item 1a, 1b, 1c.i, 1c.ii, 1d, and 1e of VEGP Unit 3 COL, Appendix C, Table 3.2-1 and are available for NRC inspection as part of the ITAAC Completion Package (Reference 7).

List of ITAAC Findings

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 there are no relevant ITAAC findings associated with this ITAAC.

References (available for NRC inspection)

1. ND-XX-XXXX ITAAC Closure Notification on Completion of ITAAC 3.2.00.01a [Index No. 739]
2. ND-XX-XXXX ITAAC Closure Notification on Completion of 3.2.00.01b [Index No. 740]
3. ND-XX-XXXX ITAAC Closure Notification on Completion of 3.2.00.01c.i [Index No. 741]
4. ND-XX-XXXX ITAAC Closure Notification on Completion of ITAAC 3.2.00.01c.ii [Index No. 742]
5. ND-XX-XXXX ITAAC Closure Notification on Completion of ITAAC 3.2.00.01d [Index No. 743]
6. ND-XX-XXXX ITAAC Closure Notification on Completion of ITAAC 3.2.00.01e [Index No. 744]
7. ITAAC 2.5.01.05 Completion Package
8. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

M. J. Yox
Regulatory Affairs Director
Vogtle 3&4
Nuclear Development

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SOUTHERN NUCLEAR
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Docket No.: 52-025

NOV 14 2016

ND-16-2357
10 CFR 52.99(c)(3)

U.S. Nuclear Regulatory Commission
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Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3
Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load
Item 2.1.01.01 [Index Number 1]

Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of October 31, 2016, Vogtle Electric Generating Plant (VEGP) Unit 3 Uncompleted Inspection, Test, Analysis, and Acceptance Criteria (ITAAC) Item 2.1.01.01 [Index Number 1] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing ITAAC 2.1.01.01 [Index Number 1]. 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 David Woods at 706-848-6903.

Respectfully submitted,

Michael J. Yox
Regulatory Affairs Director Vogtle 3&4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3
Completion Plan for Uncompleted ITAAC 2.1.01.01 [Index Number 1]

MJY/kms/amm

To:

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Mr. K. C. Greene, *Troutman Sanders*
Mr. S. Blanton, *Balch Bingham*

Southern Nuclear Operating Company
ND-16-2357
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3
Completion Plan for Uncompleted ITAAC 2.1.01.01 [Index Number 1]

Subject: Uncompleted ITAAC 2.1.01.01 [Index No. 1]

ITAAC Statement

Design Commitment

1. *The functional arrangement of the FHS is as described in the Design Description of this Section 2.1.1.*

Inspections/Tests/Analyses

Inspection of the as-built system will be performed.

Acceptance Criteria

The as-built FHS conforms with the functional arrangement as described in the Design Description of this Section 2.1.1.

ITAAC Completion Description

An inspection of the as-built Fuel Handling and Refueling System (FHS) is performed to verify the functional arrangement of the FHS is as described in the Design Description of VEGP Unit 3 Combined License (COL) Appendix C Section 2.1.1. The inspection of the as-built FHS is conducted as part of the system/turnover walkdown between construction completion and preoperational testing on the FHS.

The inspection is completed in accordance with APP-GW-ITY-004, Functional Arrangement ITAAC Guideline (Reference 1), which requires the preparation of a detailed inspection plan. This inspection plan includes the use of detailed drawings to perform visual observations and compare the as-built FHS to the Design Description.

The inspection results are documented in the Principal Closure Document XXX (Reference 2) supporting the ITAAC 2.1.01.01 Completion Package (Reference 3) and confirm that that the as-built FHS conforms with the functional arrangement as described in the Design Description of VEGP Unit 3 COL Appendix C Section 2.1.1.

Principal Closure Document XXX is available for NRC inspection as part of the ITAAC 2.1.01.01 Completion Package.

List of ITAAC Findings

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 there are no relevant ITAAC findings associated with this ITAAC.

References (available for NRC inspection)

1. APP-GW-ITY-004, Rev. 1, Functional Arrangement ITAAC Guideline
2. Principal Closure Document XXX
3. ITAAC 2.1.01.01 Completion Package
4. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

DEMO 3 - PASSIVE CONTAINMENT COOLING FUNCTIONAL ARRANGEMENT 2.2 02.01

Project No.: 0783 ND-11-0492

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3
Completion of ITAAC 2.2 02.01

The purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the *Simulated* completion of Vogtle Electric Generating Plant (VEGP) Unit 3, Inspection, Test, Analysis and Acceptance Criteria (ITAAC) Item 2.2 02.1 for verifying that the Passive Containment Cooling System (PCS) conforms with the functional arrangement as described in the Design Description in Section 2.2.2 of the AP1000 DCD in accordance with 10 CFR 52.99(c)(1). The closure process for this ITAAC is based on the guidance described in NEI 08-01 (Reference 1).

ITAAC Statement

Design Commitment:

The functional arrangement of the PCS is as described in the Design Description of this Section 2.2.2.

Inspections, Tests, Analysis:

Inspection of the as- built system will be performed.

Acceptance Criteria:

The as-built PCS conforms to the functional arrangement as described in the Design Description of this Section 2.2.2.

ITAAC Determination Basis

An inspection of the as-built PCS was conducted as part of the system turnover/walkdown between construction completion and pre-operational testing on the Passive Cooling System (PCS) to confirm that the functional arrangement of the PCS is as described in the Design Description of DCD Tier 1 Section 2.2.2. [Based on guidance in NEI 08-01, Section 10.5, that was developed subsequent to the ITAAC Demonstration Project, the following sentence should be added here to the ITAAC Determination Basis for functional arrangement ITAAC:

"This inspection encompassed all SSCs identified in the Tier 1 design description, including those in referenced tables and figures."]

The inspection (walkdown) was completed in accordance with Consortium Procedure APP-GW-GQP-XXX (Reference 3) which requires the preparation of a detailed inspection plan. This plan included the use of detailed drawings to perform visual observations and compare the as-built system to the design description.

The inspection confirmed that the functional arrangement of the as-built PCS conforms to the Design Description of DCD Tier 1 Section 2.2.2, as documented in the PCS functional arrangement inspection report (Reference 4).

ITAAC Finding Review

In accordance with procedures for ITAAC closure, Southern Nuclear performed a review of all ITAAC findings pertaining to the subject ITAAC. This review found that there was no relevant ITAAC findings associated with this ITAAC. The Completion Package (Reference 2) documents the closure for ITAAC 2.2 02.01 and is available for NRC inspection.

ITAAC Completion Statement

Based on the above information for VEGP Unit 3, Southern Nuclear notifies the NRC that ITAAC 2.2 02.01 was performed and 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.

We request 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 J. (Jim) T. Davis at 706-826-5544.

Sincerely,

J. T. Davis
Vogtle 3 & 4 Licensing Supervisor
SNC Nuclear Development

JTD/faw

Enclosure: Completion ITAAC 2.2 02.01

References (available for NRC inspection)

1. NEI 08-01, *Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52.*
2. ITAAC 2.2 02.01 Completion Package
3. APP-GW-GQP-XXX, System Walkdown Inspection Procedure
4. SV3-PCS-GQI-XXX, PCS Functional Arrangement Inspection Report

Subject: Uncompleted ITAAC 2.6.03.08 [Index No. 617]

ITAAC Statement

Design Commitment

8. Circuit breakers and fuses in IDS battery, battery charger, dc distribution panel, and MCC circuits are rated to interrupt fault currents.

Inspections/Tests/Analyses

Analyses for the as-built IDS dc electrical distribution system to determine fault currents will be performed.

Acceptance Criteria

Analyses for the as-built IDS dc electrical distribution system exist and conclude that the analyzed fault currents do not exceed the interrupt capacity of circuit breakers and fuses in the battery, battery charger, dc distribution panel, and MCC circuits, as determined by their nameplate ratings.

ITAAC Completion Description

Analyses for the as-built Class 1E dc and Uninterruptible Power Supply System (IDS) dc electrical distribution system are performed to verify that the analyzed fault currents do not exceed the interrupt capacity of circuit breakers and fuses in the battery, battery charger, dc distribution panel, and Motor Control Center (MCC) circuits, as determined by their nameplate ratings.

The minimum required interrupt capacity rating of circuit breakers and fuses in the battery, battery charger, dc distribution panel, and MCC circuits in the IDS is determined by calculation and summarized in the IDS Short Circuit Analysis and Protection Coordination Study (References 1 and 2). The IDS interrupt capacity rating calculation utilizes the worst case short circuit contribution from each battery, battery charger, and motor loads of the IDS , which determines protective device sizes in accordance with the criteria stated in Section 7.1 of Institute of Electrical and Electronics Engineers (IEEE) Standard 946 (Reference 3).

The nameplate capacity ratings of the as-built IDS circuit breakers and fuses in the battery, battery charger, dc distribution panel, and MCC circuits are inspected in accordance with QSI 10.1-V, “Inspection Planning and Reporting” (Reference 5). The nameplate rating for each of these circuit breakers and fuses is evaluated for protection from the analytically determined system fault currents.

The combination of the as-built IDS inspection results and the analyses documented in the IDS Short Circuit Analysis and Protection Coordination Study conclude that the analyzed fault currents do not exceed the interrupt capacity of circuit breakers and fuses in the battery, battery

charger, dc distribution panel, and MCC circuits, as determined by their nameplate ratings. The as-built IDS inspection results and the IDS Short Circuit Analysis and Protection Coordination Study analysis results are documented in the Principal Closure Document XXX (Reference 6) supporting the ITAAC 2.6.03.08 Completion Package (Reference 7)

Principal Closure Document XXX exists and is available for NRC inspection as part of the ITAAC 2.6.03.08 Completion Package.

List of ITAAC Findings

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 there are no relevant ITAAC findings associated with this ITAAC.

References (available for NRC inspection)

1. IDS Short Circuit Analysis
2. IDS Protection Coordination Study
3. IEEE Standard 946, IEEE Recommended Practice for the Design of dc Auxiliary Power Systems for Generating Stations, 1992
4. IEEE Standard 242, IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems, 2001
5. QSI 10.1-V, Inspection Planning and Reporting
6. Principal Closure Document XXX
7. ITAAC 2.6.03.08 Completion Package
8. NEI 08-01, “Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52”

Subject: Uncompleted ITAAC 2.6.03.09 [Index No. 618]

ITAAC Statement

Design Commitment

9. The IDS batteries, battery chargers, dc distribution panels, and MCCs are rated to withstand fault currents for the time required to clear the fault from its power source.

Inspections/Tests/Analyses

Analyses for the as-built IDS dc electrical distribution system to determine fault currents will be performed.

Acceptance Criteria

Analyses for the as-built IDS dc electrical distribution system exist and conclude that the fault current capacities of as-built IDS batteries, battery chargers, dc distribution panels, and MCCs, as determined by manufacturer's ratings, exceed their analyzed fault currents for the time required to clear the fault from its power source as determined by the circuit interrupting device coordination analyses.

ITAAC Completion Description

Analyses for the as-built Class 1E dc and Uninterruptible Power Supply System (IDS) dc electrical distribution system are performed to verify that the fault current capacities of as-built IDS batteries, battery chargers, dc distribution panels, and Motor Control Centers (MCCs), as determined by manufacturer's ratings, exceed their analyzed fault currents for the time required to clear the fault from its power source as determined by the circuit interrupting device coordination analyses. Fault current and circuit interrupting device coordination analysis requirements for the IDS dc electrical distribution system are performed in accordance with the criteria stated in Institute of Electrical and Electronics Engineers (IEEE) Standards 946 and 242 (References 1 and 2).

The worst case short circuit (fault) currents of the as-built IDS batteries, battery chargers, dc distribution panels, and MCCs are determined by calculation and are summarized in the IDS Short Circuit Analysis (Reference 3). The results of Reference 3 are used in combination with the circuit interrupting device IDS Protection Coordination Study (Reference) 4 to determine the worst case analyzed fault currents for the time required to clear the fault from its power source.

The manufacturer's fault current ratings of the as-built IDS batteries, battery chargers, dc distribution panels, and MCCs are inspected in accordance with QSI 10.1-V, "Inspection Planning and Reporting" (Reference 5). The fault current ratings for each of the batteries, battery chargers, dc distribution panels, and MCCs, as documented in inspection records, are then compared to the fault current information determined in References 3 and 4 to verify that

the fault current capacities of as-built IDS batteries, battery chargers, dc distribution panels, and MCCs, as determined by manufacturer's ratings, exceed their analyzed fault currents for the time required to clear the fault from its power source.

The results of these comparison analyses are documented in the Principal Closure Document XXX (Reference 6) supporting the ITAAC 2.6.03.09 Completion Package (Reference 7) and conclude that the fault current capacities of as-built IDS batteries, battery chargers, dc distribution panels, and MCCs, as determined by manufacturer's ratings, exceed their analyzed fault currents for the time required to clear the fault from its power source as determined by the circuit interrupting device coordination analyses.

Principal Closure Document XXX exists and is available for NRC inspection as part of the ITAAC 2.6.03.09 Completion Package.

List of ITAAC Findings

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 there are no relevant ITAAC findings associated with this ITAAC.

References (available for NRC inspection)

1. IEEE Standard 946, IEEE Recommended Practice for the Design of dc Auxiliary Power Systems for Generating Stations, 1992
2. IEEE Standard 242, IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems, 2001
3. IDS Short Circuit Analysis
4. IDS Protection Coordination Study
5. QSI 10.1-V, Inspection Planning and Reporting
6. Principal Closure Document XXX
7. ITAAC 2.6.03.09 Completion Package
8. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

Subject: Uncompleted ITAAC 2.6.03.10 [Index No. 619]

ITAAC Statement

Design Commitment

10. The IDS electrical distribution system cables are rated to withstand fault currents for the time required to clear the fault from its power source.

Inspections/Tests/Analyses

Analyses for the as-built IDS dc electrical distribution system to determine fault currents will be performed.

Acceptance Criteria

Analyses for the as-built IDS dc electrical distribution system exist and conclude that the IDS dc electrical distribution system cables will withstand the analyzed fault currents, as determined by manufacturer's ratings, for the time required to clear the fault from its power source as determined by the circuit interrupting device coordination analyses.

ITAAC Completion Description

Analyses for the as-built Class 1E dc and Uninterruptible Power Supply System (IDS) dc electrical distribution system are performed to verify that the IDS dc electrical distribution system cables will withstand the analyzed fault currents, as determined by manufacturer's ratings, for the time required to clear the fault from its power source as determined by the circuit interrupting device coordination analyses. Fault current and circuit interrupting device coordination analysis for the IDS dc electrical distribution system are performed in accordance with the criteria stated in Institute of Electrical and Electronics Engineers (IEEE) Standards 946 and 242 (References 1 and 2).

The worst case short circuit (fault) currents of the as-built IDS electrical distribution system cables are determined by calculation and are summarized in the IDS Short Circuit Analysis (Reference 3). The results of Reference 3 are used in combination with the circuit interrupting device IDS Protection Coordination Study (Reference 4) to determine the worst case analyzed fault currents for the time required to clear the fault from its power source.

The as-built IDS dc electrical distribution system cables are inspected in accordance with QSI 10.1-V, "Inspection Planning and Reporting" (Reference 5). Each cable is inspected by Quality Control when it is removed from the specified cable reel. The manufacturer's unique cable reel number is recorded during the inspection. The cable reel number provides traceability to the manufacturer's rating of the cable. Each cable termination is inspected by Quality Control following installation. The inspection records provide traceability to the manufacturer's rating for each cable terminal.

The manufacturer's rating of the cable and cable terminals, as traceable through inspection records, are compared to the fault current information determined in References 3 and 4 to verify that the fault current capacities of as-built IDS dc electrical distribution system cables, as determined by manufacturer's ratings, exceed their analyzed fault currents for the time required to clear the fault from its power source.

The results of these comparison analyses are documented in the Principal Closure Document XXX (Reference 6) supporting the ITAAC 2.6.03.10 Completion Package (Reference 7), and conclude that the fault current capacities of as-built IDS dc electrical distribution system cables, as determined by manufacturer's ratings, exceed their analyzed fault currents for the time required to clear the fault from its power source as determined by the circuit interrupting device coordination analyses.

Principal Closure Document XXX exists and is available for NRC inspection as part of the ITAAC 2.6.03.10 Completion Package.

List of ITAAC Findings

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 there are no relevant ITAAC findings associated with this ITAAC.

References (available for NRC inspection)

1. IEEE Standard 946, IEEE Recommended Practice for the Design of dc Auxiliary Power Systems for Generating Stations, 1992
2. IEEE Standard 242, IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems, 2001
3. IDS Short Circuit Analysis
4. IDS Protection Coordination Study
5. QSI 10.1-V, Inspection Planning and Reporting
6. Principal Closure Document XXX
7. ITAAC 2.6.03.10 Completion Package
8. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

Southern Nuclear

Michael J. Yox
Director
Regulatory Affairs
Plant Vogtle 3&4

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Docket No.: 52-025

ND-17-xxxx
10 CFR 52.99(c)(1)

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3
ITAAC Closure Notification on Completion of ITAAC 2.3.06.02a [Index Number 355]

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 2.3.06.02a [Index Number 355] for verification that the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPVC) Section III:

- Design reports exist for the as-built components and piping identified in VEGP Unit 3 Combined License (COL) Appendix C Tables 2.3.6-1 and 2.3.6-2 respectively as ASME Code Section III for the Normal Residual Heat Removal System (RNS).
- A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds in RNS components and piping identified in Tables 2.3.6-1 and 2.3.6-2 respectively as ASME Code Section III.
- A report exists and concludes that the results of hydrostatic tests of the components and piping identified in Tables 2.3.6-1 and 2.3.6-2 respectively as ASME Code Section III conform with the requirements of the ASME Code Section III.
- A report exists and concludes that each of the as-built lines identified in Table 2.3.6-2 for which functional capability is required meets the requirements for functional capability.
- An LBB evaluation report exists and concludes that the LBB acceptance criteria are met by the as-built RNS piping and piping materials or a pipe break evaluation report exists and concludes that protection from the dynamic effects of a line break is provided.

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

MJY/XXX/yyy

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3
Completion of ITAAC 2.3.06.02a [Index Number 355]

To:

Southern Nuclear Operating Company/ Georgia Power Company
[insert names]
Document Services RTYPE: VND.LI.L06
File AR.01.02.06

cc:

Nuclear Regulatory Commission
[insert names]

Oglethorpe Power Corporation
[insert names]

Municipal Electric Authority of Georgia
[insert names]

Dalton Utilities
[insert names]

WECTEC
[insert names]

Westinghouse Electric Company, LLC
[insert names]

Other
[insert names]

Southern Nuclear Operating Company
ND-17-xxxx
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3
Completion of ITAAC 2.3.06.02a [Index Number 355]

ITAAC Statement

Design Commitment:

2.a) The components identified in Table 2.3.6-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.

2.b) The piping identified in Table 2.3.6-2 as ASME Code Section III is designed and constructed in accordance with ASME Code Section III requirements.

3.a) Pressure boundary welds in components identified in Table 2.3.6-1 as ASME Code Section III meet ASME requirements.

3.b) Pressure boundary welds in piping identified in Table 2.3.6-2 as ASME Code Section III meet ASME requirements.

4.a) The components identified in Table 2.3.6-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.

4.b) The piping identified in Table 2.3.6-2 as ASME Code Section III retain its pressure boundary integrity at their design pressure.

5.b) Each of the lines identified in Table 2.3.6-2 for which functional capability is required is designed to withstand combined normal and seismic design basis loads without a loss of its functional capability.

6. Each of the as-built lines identified in Table 2.3.6-2 as designed for LBB meets the LBB criteria, or an evaluation is performed of the protection from the dynamic effects of a rupture of the line.

Inspections, Tests, Analyses:

Inspection will be conducted of the as-built components and piping as documented in the ASME design reports.

Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.

A hydrostatic test will be performed on the components and piping required by the ASME Code Section III to be hydrostatically tested.

Inspection will be performed for the existence of a report verifying that the as-built piping meets the requirements for functional capability.

Inspection will be performed for the existence of an LBB evaluation report or an evaluation report on the protection from dynamic effects of a pipe break. Section 3.3, Nuclear Island Buildings, contains the design descriptions and inspections, tests, analyses, and acceptance criteria for protection from the dynamic effects of pipe rupture.

Acceptance Criteria:

The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.3.6-1 and 2.3.6-2 as ASME Code Section III.

A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.

A report exists and concludes that the results of the hydrostatic test of the components and piping identified in Tables 2.3.6-1 and 2.3.6-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.

A report exists and concludes that each of the as-built lines identified in Table 2.3.6-2 for which functional capability is required meets the requirements for functional capability.

An LBB evaluation report exists and concludes that the LBB acceptance criteria are met by the as-built RNS piping and piping materials or a pipe break evaluation report exists and concludes that protection from the dynamic effects of a line break is provided.

ITAAC Determination Basis

Inspections and Hydrostatic Tests were performed in accordance with ASME B&PV Code Section III of the as-built components and piping identified in Combined License (COL) Appendix C, Tables 2.3.6-1 and 2.3.6.-2 (Attachment A) as ASME Code Section III (Reference 1) to demonstrate: ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.3.6-1 and 2.3.6-2 as ASME Code Section III, a report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds, and a report exists and concludes that the results of the hydrostatic test of the components and piping identified in Tables 2.3.6-1 and 2.3.6-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.

The ASME Code Design Reports referenced in the ASME N-5 Code Data Report (Reference 2) documents that the components and piping listed in Attachment A were designed and constructed in accordance with applicable design specifications and ASME Code Section III requirements (1998 edition, 2000 Addenda with additional restrictions for piping design). Additional restrictions for piping design are: dynamic loads in pipe stress analysis satisfy the requirements of ASME Code Section III 1989 Edition, 1989 Addenda; for girth fillet welds between piping and socket welded fittings, valves and flanges, the primary stress indices and stress intensification factors are as shown in UFSAR Section 5.2.1.1 (Reference 3). The Design Reports and installation documents were inspected to confirm that the Design Reports were in compliance with the respective design specifications and ASME Code Section III.

The results of non-destructive examinations of the pressure boundary welds of the components exist within the Quality Assurance Data Packages for the components identified in Attachment A The results of non-destructive examinations (NDE) of the pressure boundary welds of the piping identified in Attachment A exist within the System's NDE reports. The ASME N-5 Code Data Reports for components and piping identified in Attachment A were inspected and conclude they conform with the requirements of ASME Code Section III (1998 Edition, 2000 Addenda).

The results of hydrostatic tests of the components exist within the Quality Assurance Data Packages for the components identified in Attachment A. The results of hydrostatic tests of the piping identified in Attachment A exist within the System's Hydro Test reports. The ASME N-5 Code Data Reports for components and piping identified in Attachment A (Reference 2) were inspected and conclude they conform with the requirements of ASME Code Section III (1998 Edition, 2000 Addenda).

An Inspection was performed for the existence of a report verifying that the as-built lines identified in Table 2.3.6-2 for which functional capability is required meets the requirements for functional capability and for lines designed for Leak Before Break (LBB) meets LBB criteria as described in the applicable piping design specification.

A report exists and concludes that each of the as-built lines identified in Table 2.3.6-2 (Attachment B) for which functional capability is required meets the requirements for functional capability (Reference 4) and the as-built lines designed for LBB meets LBB requirements (Reference 5) and have been reconciled to the as-designed piping stress analyses for the RNS.

Design reconciliation of the as-built system, including installed components, validates that construction completion, including field changes and any nonconforming condition dispositions, is consistent with and bounded by the approved design and referenced in the ASME N-5 Code Data Reports or its sub-tier references.

Together these reports conclude that the ASME Code Section III requirements for design reports, NDE and hydrostatic testing along with RNS piping design specification requirements for functional capability and LBB requirements for as-built RNS components and piping are met and satisfy the Acceptance Criteria.

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 document number is included in the Vogtle Unit 3 ITAAC Completion Package for ITAAC 2.3.06.02a (Reference 6) and available for NRC inspection.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.3.06.02a 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. (BPVC) Section III requirements as described in VEGP 3&4 Updated Final Safety Analysis Report American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section 5.2.1, Compliance with Codes and Code Cases

2. ASME N-5 Code Data Reports

3. VEGP UFSAR Section 5.2.1.1

4. Functional Capability Report

5. Leak Before Break Report

6. SVP_SV0_00xxxx, Attachment 1, “Submittal of Inspections, Test, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 3 ITAAC 2.3.06.02a [COL Index Number 355] (RNS System ASME Code Section III Reports)”

Attachment A

SYSTEM: Normal Residual Heat Removal System (RNS)

Excerpt from COL Appendix C Tables 2.3.6-1* and 2.3.6-2*

Equipment Name*	**Tag No.***	**ASME Code Section III ***	**Report**
RNS Pump A (Pressure Boundary)	RNS-MP-01A	Yes	RNS N-5 Code Data Report
Line Name*	**Line Number***	**ASME Code Section III ***	**Report**
RNS Suction Lines, from the RCS Hot Leg Connection to the RCS Side of Valves RNS PL-V001A and RNS-PL-V001B	RNS-L001 RNS-L002A RNS-L002B	Yes	LBB
RNS Suction Line from CVS	RNS-L061	Yes	Functional Capability