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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.3.10.02a [Index Number 431]

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 2.3.10.02a [Index Number 431] for verifying the components and piping identified in VEGP Combined License (COL) Appendix C Tables 2.3.10-1 and 2.3.10-2 are designed and constructed in accordance with American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (B&PVC) Section III and functional capability requirements for the Liquid Radwaste System (WLS). 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 Kelli A. Roberts at 706-848-6991.

Respectfully submitted,

Jamie Coleman

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Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.3.10.02a [Index Number 431]

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Southern Nuclear Operating Company
ND-22-0200
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.3.10.02a [Index Number 431]

ITAAC Statement

Design Commitment:

2.a) The components identified in Table 2.3.10-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.

2.b) The piping identified in Table 2.3.10-2 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 2.3.10-1 as ASME Code Section III meet ASME Code Section III requirements.

3.b) Pressure boundary welds in piping identified in Table 2.3.10-2 as ASME Code Section III meet ASME Code Section III requirements.

4.a) The components identified in Table 2.3.10-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.

4.b) The piping identified in Table 2.3.10-2 as ASME Code Section III retains its pressure boundary integrity at its design pressure.

5.b) Each of the lines identified in Table 2.3.10-2 for which functional capability is required is designed to withstand combined normal and seismic design basis loads without a loss of its functional capability.

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.

Acceptance Criteria:

The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.3.10-1 and 2.3.10-2 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 2.3.10-1 and 2.3.10-2 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 2.3.10-2 for which functional capability is required meets the requirements for functional capability.

ITAAC Determination Basis

This ITAAC requires inspections, tests, and analyses be performed and documented to ensure the Liquid Radwaste System (WLS) components and piping listed in the Combined License (COL) Appendix C, Table 2.3.10-1 (Attachment A) and Table 2.3.10-2 (Attachment B) that are identified as American Society of Mechanical Engineers (ASME) Code Section III or Functional Capability Required were designed and constructed in accordance with applicable requirements.

2.a and 2.b) The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.3.10-1 and 2.3.10-2 as ASME Code Section III.

Each component listed in Table 2.3.10-1 as ASME Code Section III was fabricated in accordance with the VEGP Updated Final Safety Analysis Report (UFSAR) and the ASME Code Section III requirements. An ASME Code Section III certified Design Report for these components exists and documents that the as-built components conform to the approved design details (Reference 1). This ASME Section III certified Design Report is documented on the ASME Section III certified Design Report for the applicable piping system (Reference 2).

The as-built piping listed in Table 2.3.10-2 including the components listed in Table 2.3.10-1 as ASME Code Section III, were subjected to a reconciliation process (Reference 3), which verifies that the as-built piping was analyzed for applicable loads (e.g., stress reports) and for compliance with all design specification and Code provisions. Design reconciliation of the as-built system, including installed components, validates that construction completion, including field changes and any nonconforming condition dispositions, were consistent with and bounded by the approved design. All applicable fabrication, installation and testing records, as well as, those for the related Quality Assurance (QA) verification/inspection activities, which confirm adequate construction in compliance with the ASME Code Section III and design provisions, were recorded in Supplement 1 (i.e., Installation N-5 Code Date Report) (Reference 4) of the AP1000 ASME Section III System Code Data Report for the Liquid Radwaste System-A (WLS-A), (i.e., System N-5 Code Data Report) (Reference 5).

Certified Design Reports for the components listed in Table 2.3-10-1 (Attachment A) and piping listed in Table 2.3.10-2 (Attachment B) as ASME Code Section III, exist and conclude that these installed components and piping were designed and constructed (including the component installation within the applicable as-built piping system) in accordance with the ASME Code (1998 Edition, 2000 Addenda), Section III requirements as applicable, as described in UFSAR Subsection 5.2.1 (Reference 6).

3.a and 3.b) A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.

Inspections were performed of each component's as-built drawing which identified and demonstrate that these components contain no pressure boundary welds and therefore non-destructive examination (NDE) of pressure boundary welds in accordance with ASME Code Section III requirements were not required (Reference 1).

An inspection was performed in accordance with Reference 3 to demonstrate that the as-built pressure boundary welds in piping identified in Table 2.3.10-2 (Attachment B) as ASME Code Section III met ASME Code Section III requirements (i.e., no unacceptable indications). This portion of the ITAAC was completed when the piping identified in Table 2.3.10-2, which is encompassed within the respective piping system Code Symbol N-Stamp and the corresponding piping system Installation N-5 Code Data Report Form (Reference 4), were completed. The NDEs (including visual inspection, liquid penetrant, magnetic particle, radiographic, and ultrasonic testing, as required by ASME Code Section III) of the piping pressure boundary welds were documented either in the NDE Report(s) within the piping system's supporting data packages or the field weld reports, which support completion of the respective Code Stamping and Installation N-5 Code Data Report (Reference 4). The completion of stamping the respective piping system along with the corresponding Installation N-5 Code Data Report (certified by the Authorized Nuclear Inspector) ensure that the piping was constructed in accordance with the design specifications and the ASME Code Section III and that the satisfactory completion of the NDEs of piping pressure boundary welds for the pipe lines identified in Table 2.3.10-2 meet ASME Code Section III requirements and were documented in the NDE Reports within the supporting data packages.

4.a and 4.b) A report exists and concludes that the results of the hydrostatic test of the components and piping identified in Tables 2.3.10-1 and 2.3.10-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.

Hydrostatic tests were performed both by the vendor in their manufacturing facility and in-situ once installed in the plant to demonstrate that the components identified in Table 2.3.10-1 (Attachment A) as ASME Code Section III retain their pressure boundary integrity at their design pressure. The completion of the vendor's N-5 Code Data Report is governed by Reference 3. The completion of in-situ testing is documented in Reference 4.

This portion of the ITAAC was completed once each component identified in Table 2.3.10-1 had their individual Code Symbol N-Stamp applied and the components were installed into the respective Code Symbol N-Stamped piping system and documented on the Installation N-5 Code Data Report (Reference 4) confirming that in-situ hydrostatic test(s) were successfully performed (no leaks at the pressure boundary) and corresponding N-5 Code Data Report completed.

The completion of stamping the individual components and the respective piping system along with the corresponding Installation N-5 Code Data Report (certified by the Authorized Nuclear Inspector) ensures that the components were constructed in accordance with the Design Specification and meets the ASME Code Section III requirements for hydrostatic pressure testing.

This ITAAC also verified that the piping identified in Table 2.3.10-2 (Attachment B) fully meets all applicable ASME Code, Section III requirements and retains its pressure boundary integrity at its design pressure.

Hydrostatic tests were performed (as applicable) that comply with the ASME Code (1998 Edition, 2000 Addenda), Section III requirements to demonstrate that the ASME Code Section III piping identified in Table 2.3.10-2 retains its pressure boundary integrity at its design pressure (Reference 4).

A hydrostatic test verified there were no leaks at welds or piping, and that the pressure boundary integrity is retained at its design pressure. The hydrostatic testing results of the pipe lines are documented in the Hydrostatic Testing Reports. The Hydrostatic Testing Reports support completion of the Installation N-5 Code Data Report for the applicable piping system (i.e., WLS) (Reference 4).

The applicable Installation N-5 Code Data Report (Reference 4) identified in Attachments A and B documents that the results of the hydrostatic testing of the components and piping identified in Table 2.3.10-1 and Table 2.3.10-2 respectively conform with the requirements of the Code (1998 Edition, 2000 Addenda), Section III.

5.b) A report exists and concludes that each of the as-built lines identified in Table 2.3.10-2 for which functional capability is required meets the requirements for functional capability.

An inspection was performed of the ASME Section III as-built piping design report (Reference 2) to verify that the report demonstrates that each of the WLS piping lines identified in ITAAC Table 2.3.10-2 that requires functional capability was designed to withstand combined normal and seismic design basis loads without a loss of its functional capability. "Functional capability," in this context, refers to the capability of the piping to withstand the effects of earthquakes, without a loss of safety function (to convey fluids from one location to another). Specific functional capability requirements are defined in the VEGP UFSAR Table 3.9-11 (Reference 6).

Piping functional capability is not a specific ASME Code requirement but it is a requirement in the VEGP UFSAR (Reference 6). As such, information demonstrating that UFSAR functional capability requirements were met is included in the ASME Section III As-Built Design Reports for safety class piping prepared in accordance with ASME Section III NCA-3550 under the ASME Boiler & Pressure Vessel Code (1998 Edition, 2000 Addenda) Section III requirements. The as-built piping system was subjected to a reconciliation process (Reference 3), which verified that the as-built piping system was analyzed for functional capability and for compliance with the design specification and ASME Code provisions. Design reconciliation of the as-built system validated that construction completion, including field changes and any nonconforming condition dispositions, were consistent with and bounded by the approved design. As required by ASME Code, the As-Built Design Report includes the results of physical inspection of the piping and reconciliation to the design pipe stress report.

Inspections of the ASME Code Section III As-Built Piping Design Report (Reference 2) for the WLS piping lines identified in Table 2.3.10-2 were completed and conclude that each of the as-built WLS piping lines for which functional capability is required met the requirements for

functional capability. The ASME Section III As-Built Piping Design Report for each of the as-built WLS piping lines in Table 2.3.10-2 are identified in Attachment B.

References 1, 2, 4 and 5 provide the evidence that the ITAAC Acceptance Criteria requirements are met:

- The ASME Code Section III design reports exists for the as-built components and piping identified in Tables 2.3.10-1 and 2.3.10-2 as ASME Code Section III;
- A report exists and concludes that the ASME Code Section III requirements were 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 2.3.10-1 and 2.3.10-2 as ASME Code Section III conform with the requirements of the ASME Code Section III; and
- A report exists and concludes that each of the as-built lines identified in Table 2.3.10-2 for which functional capability is required meets the requirements for functional capability.

References 1, 2, 4 and 5 are available for NRC inspection as part of the Unit 4 ITAAC 2.3.10.02a Completion Package (References 7).

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 for ITAAC 2.3.10.02a (Reference 7) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.3.10.2a 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. SV0-PV03-VDR-175, Rev. 3, "Compliation of Design Reports for the as-built PV03 Datasheet 175 valves"
2. SV4-WLS-S3R-001, Rev. 0, "Vogtle Unit 4 Liquid Radwaste System A (WLS-A) ASME Section III Piping System Design Report"
3. APP-GW-GAP-139, Rev. 8 "Westinghouse/Stone & Webster ASME Code Data Report and As-Built Documentation Interface Procedure"
4. SV4-WLS-MJR-002, Rev. 0, "Liquid Radwaste System N-5 SV4-WLS-002"
5. SV4-WLS-MUR-001, Rev. 0, "AP1000 Vogtle Unit 4 ASME Section III System Code Data Report for the Liquid Radwaste System (WLS-A)"
6. VEGP 3&4 Updated Final Safety Analysis Report, Rev. 11.0
    a. Subsection 5.2.1 Compliance with Codes and Code Cases
    b. Table 3.9-11 – Piping Functional Capability – ASME Class 1, 2, and 3
7. 2.3.10.02a-U4-CP-Rev0, ITAAC Completion Package

Attachment A

SYSTEM: Liquid Radwaste System (WLS)

Equipment Name *	Tag No. *	ASME Code Section III*	ASME III as-built Design Report	ASME III N-5 Code Data Report
WLS Drain from Passive Core Cooling System (PXS) Compartment A (Room 11206) Check Valve	WLS-PL-V071B	Yes	SV4-WLS-S3R-001	SV4-WLS-MUR-001
WLS Drain from PXS Compartment A (Room 11206) Check Valve	WLS-PL-V072B	Yes	SV4-WLS-S3R-001	SV4-WLS-MUR-001
WLS Drain from PXS Compartment B (Room 11207) Check Valve	WLS-PL-V071C	Yes	SV4-WLS-S3R-001	SV4-WLS-MUR-001
WLS Drain from PXS Compartment B (Room 11207) Check Valve	WLS-PL-V072C	Yes	SV4-WLS-S3R-001	SV4-WLS-MUR-001
WLS Drain from Chemical and Volume Control System (CVS) Compartment (Room 11209) Check Valve	WLS-PL-V071A	Yes	SV4-WLS-S3R-001	SV4-WLS-MUR-001
WLS Drain from CVS Compartment (Room 11209) Check Valve	WLS-PL-V072A	Yes	SV4-WLS-S3R-001	SV4-WLS-MUR-001

*Excerpts from COL Appendix C Table 2.3.10-1

Attachment B

SYSTEM: Liquid Radwaste System (WLS)

Line Name*	Line Number*	ASME Code Section III*	Functional Capability Required*	ASME III As-Built Design Report	ASME III N-5 Code Data Reports
WLS Drain from PXS Compartment A	WLS-PL-L062	Yes	Yes	SV4-WLS-S3R-001	SV4-WLS-MUR-001
WLS Drain from PXS Compartment B	WLS-PL-L063	Yes	Yes	SV4-WLS-S3R-001	SV4-WLS-MUR-001
WLS Drain from CVS Compartment	WLS-PL-L061	Yes	Yes	SV4-WLS-S3R-001	SV4-WLS-MUR-001

*Excerpts from COL Appendix C, Table 2.3.10-2