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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.2.01.11a.iv [Index Number 117]

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 2.2.01.11a.iv [Index Number 117]. This ITAAC confirms that check valves with active safety-related functions change position under preoperational test pressure, temperature, and fluid flow conditions. The closure process for this ITAAC is based on the guidance described in Nuclear Energy Institute (NEI) 08-01, "Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52," which was endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,



Jamie M. Coleman
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.2.01.11a.iv [Index Number 117]

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cc: Regional Administrator, Region II
Director, Office of Nuclear Reactor Regulation (NRR)
Director, Vogtle Project Office NRR
Senior Resident Inspector – Vogtle 3 & 4

**Southern Nuclear Operating Company
ND-23-0486
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.2.01.11a.iv [Index Number 117]**

ITAAC Statement

Design Commitment

11.a) The motor-operated and check valves identified in Table 2.2.1-1 perform an active safety-related function to change position as indicated in the table.

Inspections/Tests/Analyses

iv) Exercise testing of the check valves with active safety functions identified in Table 2.2.1-1 will be performed under preoperational test pressure, temperature and fluid flow conditions.

Acceptance Criteria

iv) Each check valve changes position as indicated in Table 2.2.1-1.

ITAAC Determination Basis

Multiple ITAAC were performed with inspections and tests to verify the motor-operated and check valves identified in VEGP Combined License (COL) Appendix C Table 2.2.1-1 perform an active safety-related function to change position as indicated in the table under preoperational test pressure, temperature, and flow conditions. This ITAAC performed testing that verified the check valves change position as indicated in Attachment A.

Testing was performed in accordance with Unit 4 test work packages listed in References 1-7. This testing verified that each check valve changes position as indicated in Attachment A.

The work packages associated with Reference 3 established the initial conditions of Compressed and Instrument Air System (CAS) pressurizing the instrument and service air piping and installed temporary pressure indications upstream and downstream of CAS-PL-V015. This section of the system piping is depicted in Piping and Instrument Drawing (P&ID) CAS-M6-005 and 012. Pressurizing the CAS piping downstream of the containment isolation check valve demonstrated the containment isolation check valve opened. The instrument airline was manually isolated and a test connection upstream of check valve CAS-PL-V015 was opened. The differential pressure created closed CAS-PL-V015, which was locally verified to transfer closed by differential pressure indication. This same methodology was utilized to test the service air supply inside containment isolation check valve, CAS-PL-V205.

The work packages in Reference 2 initial conditions had the Component Cooling Water System (CCS) in service supplying containment loads which demonstrated the containment isolation check valve was open. The testing then directed performance of the CCS Check Valve Exercise, which closed a manual valve upstream and downstream of CCS-PL-V201. Demineralized water was connected to a test connection downstream of CCS-PL-V201 thereby pressurizing the piping downstream of CCS-PL-V201. A test connection upstream of CCS-PL-V201 was opened, creating a differential pressure across the valve, and flow rate was monitored at this test connection. When flow rate stabilized, the reading was recorded and verified to be < 1 gpm. This value confirmed that CCS-PL-V201 transferred closed. This section of the system piping is depicted in P&ID CCS-M6-002. References 5 and 7 used this same methodology for valves FPS-PL-V052 (depicted in P&ID FPS-M6-004), and VWS-PL-V062 (depicted in P&ID VWS-M6-003). Prior to initiating the check valve exercise test, the Fire Protection System (FPS) and Central Chilled Water System (VWS) were aligned to demonstrate that the containment isolation check valves for FPS and VWS were opened.

The work packages in Reference 4 initial conditions aligned and placed a portion of the Demineralized Water Transfer and Storage System (DWS) in service which demonstrated the containment isolation check valve was open. The testing then directed performance of the DWS Check Valve Exercise which closed upstream and downstream isolation valves and drained the isolated demineralized water piping. A test connection upstream of DWS-PL-V245 was opened and a metered air supply was connected to a test connection downstream of DWS-PL-V245. When pressure stabilized, the flow reading was taken and verified to be less than the local leak rate limit which confirmed that the valve transfers closed. This section of the system piping is depicted in P&ID DWS-M6-007.

The work packages in Reference 1 established the initial conditions for Spent Fuel Pool Cooling System (SFS) flow to containment which demonstrated the containment isolation check valve opened. The test then directed the closure of SFS Discharge line Containment Isolation Motor-Operated Valve—Outside Reactor Containment, SFS-PL-V038, which is upstream of SFS-PL-037. Then a test connection was opened between SFS-PL-V038 and SFS-PL-037. This created a differential pressure across SFS-PL-V037, with the higher pressure being downstream of SFS-PL-V037. The flow from the test connection to a measuring container was timed. After more than one minute, the test connection valve was closed, and the volume of water documented. The leakage rate on the upstream side of SFS-PL-V037 was calculated and verified to be < 1 gpm. This section of the system piping is depicted in P&ID SFS-M6-001. This value confirmed that SFS-PL-V037 transfers closed.

The work packages in Reference 6 performed the Containment Air Filtration System (VFS) Vacuum Relief Valve Test and Check Valve Exercise to verify Vacuum Relief Containment Isolation Check Valves, VFS-PL-V803A/B, changed positions as shown in Attachment A. A temporary air supply was hooked up and aligned to the containment air purge ducting outside containment, a blank flange was installed to block flow through VFS-PL-V803B, and system alignment was performed to direct air to VFS-PL-V803A. VFS-PL-803A was initially verified to be closed, the air supply was initiated and VFS-PL-803A was locally verified to fully open. The air supply was isolated and VFS-PL-V803A was locally verified to close. The blank flange was removed from VFS-PL-V803B and installed on VFS-PL-V803A and the testing was repeated for VFS-PL-V803B. This section of the system piping is depicted in P&ID VFS-M6-001. This testing verified that VFS-PL-V803A/B transfer opened and closed.

The combination of the test results confirmed that each check valve changes position as indicated in Table 2.2.1-1.

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 all findings pertaining to the subject ITAAC and associated corrective actions. This review found there are no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.2.01.11a.iv Completion Package (Reference 8) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.2.01.11a.iv was performed for VEGP Unit 4 and that the associated acceptance criteria was 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. SV4-CNS-ITR-800117, Rev 1, "Unit 4 Recorded Results of SFS Check Valves Position: ITAAC 2.2.01.11a.iv, NRC Index Number: 117"
2. SV4-CNS-ITR-801117, Rev 0, "Unit 4 Recorded Results of CCS Check Valves Position: ITAAC 2.2.01.11a.iv, NRC Index Number: 117"
3. SV4-CNS-ITR-802117, Rev 0, "Unit 4 Recorded Results of CAS Check Valves Position: ITAAC 2.2.01.11a.iv, NRC Index Number: 117"
4. SV4-CNS-ITR-803117, Rev 0, "Unit 4 Recorded Results of DWS Check Valve Position: ITAAC 2.2.01.11a.iv, NRC Index Number: 117"
5. SV4-CNS-ITR-804117, Rev 0, "Unit 4 Recorded Results of FPS Check Valve Position: ITAAC 2.2.01.11a.iv, NRC Index Number: 117"
6. SV4-CNS-ITR-805117, Rev 0, "Unit 4 Recorded Results of VFS Check Valve Position: ITAAC 2.2.01.11a.iv, NRC Index Number: 117"
7. SV4-CNS-ITR-806117, Rev 0, "Unit 4 Recorded Results of VWS Check Valve Position: ITAAC 2.2.01.11a.iv, NRC Index Number: 117"
8. 2.2.01.11a.iv-U4-CP-Rev 0, ITAAC Completion Package

Attachment A

*Excerpt from COL Appendix C Table 2.2.1-1

Equipment Name*	Tag No.*	Active Function*
Service Air Supply Inside Containment Isolation Check Valve	CAS-PL-V205	Transfer Closed
Instrument Air Supply Inside Containment Isolation Check Valve	CAS-PL-V015	Transfer Closed
CCS Containment Isolation Check Valve – Inlet Line Inside Reactor Containment (IRC)	CCS-PL-V201	Transfer Closed
Demineralized Water Supply Containment Isolation Check Valve IRC	DWS-PL-V245	Transfer Closed
Fire Water Containment Isolation Supply Check Valve – Inside	FPS-PL-V052	Transfer Closed
Spent Fuel Pool Cooling System (SFS) Discharge Line Containment Isolation Check Valve – IRC	SFS-PL-V037	Transfer Closed
Vacuum Relief Containment Isolation Check Valve A – IRC	VFS-PL-V803A	Transfer Closed / Transfer Open
Vacuum Relief Containment Isolation Check Valve B – IRC	VFS-PL-V803B	Transfer Closed / Transfer Open
Fan Coolers Supply Containment Isolation Check Valve – IRC	VWS-PL-V062	Transfer Closed