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JUN 10 2019

Docket Nos.: 52-025
52-026

ND-19-0645
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 and Unit 4
Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load
Item 2.2.03.12a.iv [Index Number 216]

Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of June 4, 2019, Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4 Uncompleted Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.2.03.12a.iv [Index Number 216] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing this ITAAC. Southern Nuclear Operating Company will, at a later date, provide additional notifications for ITAAC that have not been completed 225-days prior to initial fuel load.

This notification is informed by the guidance described in NEI 08-01, *Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52,* which was endorsed by the NRC in Regulatory Guide 1.215. In accordance with NEI 08-01, this notification includes ITAAC for which required inspections, tests, or analyses have not been performed or have been only partially completed. All ITAAC will be fully completed and all Section 52.99(c)(1) ITAAC Closure Notifications will be submitted to NRC to support the Commission finding that all acceptance criteria are met prior to plant operation, as required by 10 CFR 52.103(g).

This letter contains no new NRC regulatory commitments.

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

Respectfully submitted,

Michael J. Yox
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.2.03.12a.iv [Index Number 216]

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Southern Nuclear Operating Company
ND-19-0645
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.2.03.12a.iv [Index Number 216]

ITAAC Statement

Design Commitment

12.a) The squib valves and check valves identified in Table 2.2.3-1 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 2.2.3-1 will be performed under preoperational test pressure, temperature, and fluid flow conditions.

Acceptance Criteria

iv) Each check valve changes position as indicated in Table 2.2.3-1.

ITAAC Completion Description

Multiple ITAAC are performed to verify that the squib valves and check valves identified in Table 2.2.3-1 perform an active safety-related function to change position as indicated in the table. This ITAAC performs testing of check valves in accordance with preoperational test procedures 3-PXS-ITPP-502 and 4-PXS-ITPP-502 (References 1 and 2), 3-PXS-ITPP-503 and 4-PXS-ITPP-503 (References 3 and 4), 3-PXS-ITPP-506 and 4-PXS-ITPP-506 (References 5 and 6), and 3-PXS-ITPP-507 and 4-PXS-ITPP-507 (References 7 and 8) to demonstrate each check valve with active safety functions changes position as indicated in VEGP Combined License (COL) Appendix C Table 2.2.3-1 (Attachment A) under preoperational test pressure, temperature, and fluid flow conditions.

References 1 and 2 perform the transfer open testing of the Accumulator Discharge Check Valves (PXS-PL-V028A and -V029A, -V028B and -V029B). The test establishes the initial conditions of the Accumulator Tank (PXS-MT-01A) as filled and pressurized to greater than 70 pounds per square inch gage (psig) and less than 80 psig, the reactor pressure vessel (RPV) is at atmospheric pressure with the head off and the accumulator outlet valves are closed. During the flow resistance determination testing of the line from the accumulator discharge to the direct vessel injection (DVI) nozzle, the "A" accumulator outlet valves are opened and the "A" accumulator discharges into the RPV through the DVI line. During this testing the flow rate is measured using a strap-on ultrasonic flow meter (UFM) located as close to the "A" accumulator as possible and based on the flow rate, the Accumulator Discharge Check Valves (PXS-PL-V028A and -V029A) are verified to transfer open when flow rate exceeds 1614 gallons per minute (gpm). This test is repeated for the Accumulator Discharge Check Valves (PXS-PL-V028B and -V029B) during the flow resistance determination testing of the "B" Accumulator discharge through the "B" DVI line. These test flow paths are depicted on drawing SV3-PXS-M6-001, Piping and Instrumentation Diagram (P&ID) Passive Core Cooling System.

References 1 and 2 perform the transfer closed testing of the Nitrogen Supply Containment Isolation Check Valve (PXS-PL-V043). The tests establish the initial conditions of closing the nitrogen supply isolation valve to containment and closing a manual valve downstream of PXS-PL-V043. Temporary air lines are connected to test connections on either side of the PXS-PL-

V043 check valve. With the downstream test connection open, the upstream test connection is pressurized with air and V043 is determined to be open by verifying air exits the downstream test connection. The upstream connection is then closed and the air supply is connected to the downstream test connection. The downstream line is then pressurized through the downstream test connection and the test connection upstream of PXS-PL-V043 is opened and the differential pressure causes the PXS-PL-V043 check valve to transfer closed. The upstream test connection is checked for leakage to verify the check valve has transferred closed. These test flow paths are depicted on drawing SV3-PXS-M6-001, P&ID Passive Core Cooling System.

References 3 and 4 perform the transfer closed testing of the Accumulator Discharge Check Valves (PXS-PL-V028A and -V029A, -V028B and -V029B). The test ensures the "A" accumulator discharge lines are filled with water and the accumulator level is at 55% to 56% full, the "A" accumulator discharge isolation valves are closed, and one train of Normal Residual Heat Removal System (RNS) is in service recirculating the Reactor Coolant System (RCS) with the RCS Hot Leg level between 48% and 50%. The Passive Core Cooling System (PXS) test panel is utilized to sequentially place RNS pressure on the downstream side of each Accumulator Discharge Check Valve (PXS-PL-V028A and -V029A). When the upstream side of the check valves have depressurized by opening their respective upstream test connection, each check valve is demonstrated to have transferred closed. This test is repeated for the Accumulator Discharge Check Valves (PXS-PL-V028B and -V029B). These test flow paths are depicted on drawing SV3-PXS-M6-001, P&ID Passive Core Cooling System. Testing the transfer open function during pre-operational testing (References 1 and 2) along with testing the transfer closed function during pre-operational testing (References 3 and 4) provides assurance that the Accumulator Discharge Check Valves (PXS-PL-V028A and -V029A, -V028B and -V029B) have adequately cycled to demonstrate they transfer both open and closed. These test flow paths are depicted on drawing SV3-PXS-M6-001, P&ID Passive Core Cooling System.

References 5 and 6 perform the transfer open function of the Core Makeup Tank (CMT) Discharge Check Valves (PXS-PL-V016A and -V017A, -V016B and -V017B) during the flow resistance determination testing of the CMT injection line. VEGP Updated Final Safety Analysis Report (UFSAR) subsection 6.3.2.1.3 states that these check valves are normally open with or without flow in the line (i.e., flow out of the CMT and into the DVI injection line). These tests establish the "A" CMT is at approximately 75% level, the RPV is at atmospheric pressure with the head off and the "A" CMT isolation valves are verified to be closed. The "A" CMT isolation valves are then opened and a level rise in the RPV confirms that the "A" CMT Discharge Check Valves (PXS-PL-V016A and -V017A) are open. This testing is repeated on the "B" CMT Discharge Check Valves (PXS-PL-V016B and -V017B). These test paths are depicted on drawing SV3-PXS-M6-001, P&ID Passive Core Cooling System.

References 3 and 4 perform the transfer closed function of the CMT Discharge Check Valves (PXS-PL-V016A and -V017A, -V016B and -V017B). These tests establish the "A" CMT is approximately 75% full and the RPV is at atmospheric pressure with the head installed. PXS-PL-V016A is tested by closing upstream and downstream "A" CMT isolation valves, connecting a demineralized water hose with a flow meter and pressure gauge to a downstream test connection and opening an upstream test connection. A rise in the demineralized water supply pressure and a decrease in flow rate demonstrates that the PXS-PL-V016A Discharge Check Valve transfers closed. This testing is repeated for each of the remaining CMT Discharge Check Valves (PXS-PL-V016B, -V017A and -V017B). These test paths are depicted on drawing SV3-PXS-M6-001, P&ID Passive Core Cooling System. Testing the open function during pre-operational testing (References 5 and 6) along with testing the transfer closed

function during pre-operational testing (References 3 and 4) provides assurance that the CMT Discharge Check Valves (PXS-PL-V016A and -V017A, -V016B and -V017B) have adequately cycled to demonstrate they transfer both open and closed.

References 7 and 8 perform the transfer open and transfer closed function of the In-containment Refueling Water Storage Tank (IRWST) Injection Check Valves (PXS-PL-V122A, -V124A, -V122B and -V124B) during the IRWST flow resistance determination testing of the IRWST injection lines. These tests establish the IRWST level is at 12 to 15 inches, the reactor vessel is full to its flange with the head off and venturi flow meter test spools are installed in place of downstream squib valves. The IRWST injection line "A" motor operated valve (MOV) is opened and obtaining the required flow through each check valve confirms the IRWST Injection Check Valves PXS-PL-V122A and -V124A have transferred open (Note, full open may not occur per LAR 17-009). After check valves PXS-PL-V122A and -V124A are confirmed to be open, IRWST Injection Line "A" MOV is closed and the check valves PXS-PL-V122A and -V124A are confirmed to transfer closed by Main Control Room (MCR) indication. This test is repeated for the "B" IRWST Injection Check Valves (PXS-PL-V122B and -V124B). These test paths are depicted on drawing SV3-PXS-M6-002, P&ID Passive Core Cooling System. Performance of pre-operational testing (References 7 and 8) provides assurance that IRWST Injection Check Valves (PXS-PL-V122A, -V124A, -V122B and -V124B) have adequately cycled to demonstrate they transfer both open and closed.

References 7 and 8 perform the transfer open and transfer closed function of the Containment Recirculation Check Valves (PXS-PL-V119A and -V119B) during the IRWST Screen "A" to Containment Recirculation Sump "A" flow resistance determination testing. These tests establish the IRWST level is at 12 to 15 inches, the reactor vessel is full to its flange with the head off, IRWST sumps are fitted with temporary removable plugs, temporary pipe spools are installed in place of downstream squib valves and a temporary pipe with a venturi flow meter is installed to cross-connect the containment recirculation sump "A" to "B". The containment recirculation "A" MOV is opened and IRWST injection line "B" isolation valve is opened and check valve PXS-PL-V119A is confirmed to be closed by MCR indication while PXS-PL-V119B is confirmed to be open by system flow. This test is repeated by opening containment recirculation "B" MOV and IRWST injection line "A" isolation valve and confirming PXS-PL-V119B is closed by MCR indication and PXS-PL-V119A is confirmed to be open by system flow. These test paths are depicted on drawing SV3-PXS-M6-002, P&ID Passive Core Cooling System. Performance of pre-operational testing (References 7 and 8) provides assurance that Containment Recirculation Check Valves (PXS-PL-V119A and -V119B) have adequately cycled to demonstrate they transfer both open and closed.

References 1 through 8 are available for NRC inspection as part of Unit 3 and Unit 4 ITAAC 2.2.03.12a.iv Completion Packages (Reference 9 and 10).

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. 3-PXS-ITPP-502, "Passive Core Cooling System Acceptance Test"
2. 4-PXS-ITPP-502, "Passive Core Cooling System Acceptance Test"
3. 3-PXS-ITPP-503, "Passive Core Cooling System Acceptance Test"
4. 4-PXS-ITPP-503, "Passive Core Cooling System Acceptance Test"
5. 3-PXS-ITPP-506, "Passive Core Cooling System Acceptance Test"
6. 4-PXS-ITPP-506, "Passive Core Cooling System Acceptance Test"
7. 3-PXS-ITPP-507, "Passive Core Cooling System Acceptance Test"
8. 4-PXS-ITPP-507, "Passive Core Cooling System Acceptance Test"
9. 2.2.03.12a.iv-U3-CP-Rev0, ITAAC Completion Package
10. 2.2.03.12a.iv-U4-CP-Rev0, ITAAC Completion Package
11. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

Attachment A

*Excerpt from COL Appendix C Table 2.2.3-1

Equipment Name *	Tag No. *	Active Function*
CMT A Discharge Check Valve	PXS-PL-V016A	Transfer Open/Transfer Closed
CMT B Discharge Check Valve	PXS-PL-V016B	Transfer Open/Transfer Closed
CMT A Discharge Check Valve	PXS-PL-V017A	Transfer Open/Transfer Closed
CMT B Discharge Check Valve	PXS-PL-V017B	Transfer Open/Transfer Closed
Accumulator A Discharge Check Valve	PXS-PL-V028A	Transfer Open/Transfer Closed
Accumulator B Discharge Check Valve	PXS-PL-V028B	Transfer Open/Transfer Closed
Accumulator A Discharge Check Valve	PXS-PL-V029A	Transfer Open/Transfer Closed
Accumulator B Discharge Check Valve	PXS-PL-V029B	Transfer Open/Transfer Closed
Nitrogen Supply Containment Isolation Check Valve	PXS-PL-V043	Transfer Closed
Containment Recirculation A Check Valve	PXS-PL-V119A	Transfer Open/Transfer Closed
Containment Recirculation B Check Valve	PXS-PL-V119B	Transfer Open/Transfer Closed
IRWST Injection A Check Valve	PXS-PL-V122A	Transfer Open/Transfer Closed
IRWST Injection B Check Valve	PXS-PL-V122B	Transfer Open/Transfer Closed
IRWST Injection A Check Valve	PXS-PL-V124A	Transfer Open/Transfer Closed
IRWST Injection B Check Valve	PXS-PL-V124B	Transfer Open/Transfer Closed