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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.3.06.11a [Index Number 382]

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 2.3.06.11a [Index Number 382], to verify that the valves/pumps identified in Combined License (COL) Appendix C Tables 2.3.6-1 and 2.3.6-3 respond per the Acceptance Criteria specified per ITAAC 2.3.06.11a. 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 is 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 2.3.06.11a [Index Number 382]

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U.S. Nuclear Regulatory Commission

ND-23-0238

Page 2 of 2

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-23-0238
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.3.06.11a [Index Number 382]**

ITAAC Statement

Design Commitment

10. Safety-related displays identified in Table 2.3.6-1 can be retrieved in the MCR.
- 11.a) Controls exist in the MCR to cause those remotely operated valves identified in Table 2.3.6-1 to perform active functions.
- 11.b) The valves identified in Table 2.3.6-1 as having PMS control perform active safety functions after receiving a signal from the PMS.
- 12.b) After loss of motive power, the remotely operated valves identified in Table 2.3.6-1 assume the indicated loss of motive power position.
13. Controls exist in the MCR to cause the pumps identified in Table 2.3.6-3 to perform the control function.
14. Displays of the RNS parameters identified in Table 2.3.6-3 can be retrieved in the MCR.

Inspections/Tests/Analyses

Inspection will be performed for retrievability of the safety-related displays in the MCR.

Stroke testing will be performed on the remotely operated valves identified in Table 2.3.6-1 using the controls in the MCR.

Testing will be performed using real or simulated signals into the PMS.

Testing of the remotely operated valves will be performed under the conditions of loss of motive power.

Testing will be performed to actuate the pumps identified in Table 2.3.6-3 using controls in the MCR.

Inspection will be performed for retrievability in the MCR of the displays identified in Table 2.3.6-3.

Acceptance Criteria

Safety-related displays identified in Table 2.3.6-1 can be retrieved in the MCR.

Controls in the MCR operate to cause those remotely operated valves identified in Table 2.3.6-1 to perform active functions.

The valves identified in Table 2.3.6-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.

Upon loss of motive power, each remotely operated valve identified in Table 2.3.6-1 assumes the indicated loss of motive power position.

Controls in the MCR cause pumps identified in Table 2.3.6-3 to perform the control function.

Displays of the RNS parameters identified in Table 2.3.6-3 are retrieved in the MCR.

ITAAC Determination Basis

Testing or inspections were performed to verify that the Normal Residual Heat Removal System (RNS) provides the following functions:

- Inspections performed demonstrate the safety-related displays identified in Combined License (COL) Appendix C Table 2.3.6-1 (Attachment A) can be retrieved in the Main Control Room (MCR).
- Testing performed demonstrates that controls in the MCR operate to cause those remotely operated valves identified in Table 2.3.6-1 (Attachment B) to perform active functions.
- Testing performed demonstrates that the valves identified in table 2.3.6-1 (Attachment C) as having Protection and Monitoring System (PMS) control perform the active function identified in the table after receiving a signal from the PMS.
- Testing performed demonstrates that after a loss of motive power, the remotely operated valves identified in Table 2.3.6-1 (Attachment D) assumes the indicated loss of motive power position.
- Testing performed demonstrates that controls in the MCR cause pumps identified in Table 2.3.6-3 (Attachment E) to perform the control function.
- Inspections performed demonstrate the displays of the RNS parameters identified in Table 2.3.6-3 (Attachment F) are retrieved in the MCR.

Safety-related displays identified in Table 2.3.6-1 can be retrieved in the MCR.

An inspection was performed to verify the safety-related displays identified in Attachment A can be retrieved in the MCR. Inspections were performed as described in the SV4-RNS-ITR-800382 Technical Report (Reference 11) which visually confirmed that when each of the displays of the plant parameter identified in Attachment A is summoned using the MCR PMS Visual Display Units (VDUs), the expected valve position appears on the PMS VDU.

Controls in the MCR operate to cause those remotely operated valves identified in Table 2.3.6-1 to perform active functions.

Testing was performed in accordance with Unit 4 component test work package 1191320 (Reference 1) to verify that controls in the MCR operate to cause those remotely operated valves identified in Attachment B to perform active functions. Testing was conducted at an operator workstation, and Division A through D PMS VDUs in Unit 4 MCR to verify the valves identified in Attachment B as being remotely operated and having active functions are stroked open and closed from the MCR. The valve positions were verified locally and in the MCR. This confirmed that controls in Unit 4 MCR operate to cause the remotely operated valves to perform active safety functions.

The completed Unit 4 testing results (Reference 1), as documented in SV4-RNS-ITR-802382 (Reference 11), confirmed that controls in the MCR operate to cause those remotely operated valves identified in Table 2.3.6-1 to perform active functions.

The valves identified in Table 2.3.6-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.

Testing was performed in accordance with Unit 4 component test packages and procedures (References 2 through 10) to verify that the valves identified in Attachment C as having PMS control perform the active function identified in the Attachment after receiving a signal from the PMS.

Unit 4 component test packages and procedures (References 2 through 10) established initial conditions with each valve verified locally and in the MCR to be in the Open position. An actuation signal was generated by PMS using the PMS Maintenance and Test Panel (MTP) to generate a signal to Close the valves in Attachment C. Each valve was verified locally and in the MCR to be Closed.

The completed Unit 4 testing results (References 2 through 10), as documented in SV4-RNS-ITR-801382 (Reference 12), confirmed that the valves identified in Table 2.3.6-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.

Upon loss of motive power, each remotely operated valve identified in Table 2.3.6-1 assumes the indicated loss of motive power position.

Testing was performed in accordance with Unit 4 component test work package 1191320 (Reference 1) to verify that upon loss of motive power, each remotely operated valve identified in Attachment D assumes the indicated loss of motive power position.

Reference 1 was used to establish the RNS-PL-V024 Motor Operated Valve (MOV) identified in Table 2.3.6-1 in the pretest position of open. Motive power was removed from the valve by opening the associated breaker, an attempt was made to reposition the valve, and a verification was performed to ensure the valve stayed in the "As-Is" (Open) position. Actual valve position was verified locally and in the MCR. Motive power was restored and the valve was repositioned to closed. Motive power was again removed from the valve by opening the associated breaker, an attempt was made to reposition the valve, and a verification was performed to ensure the valve stayed in the "As-Is" (Closed) position. Actual valve position was verified locally and in the MCR.

References 1 and 2 were used to establish RNS-PL-V022, RNS-PL-V011, RNS-PL-V001A, RNS-PL-V001B, RNS-PL-V002A, RNS-PL-V002B, RNS-PL-V022, RNS-PL-V023 and RNS-PL-V055 Motor Operated Valves (MOVs) identified in Table 2.1.2-1 in their pretest position of closed. Each MOV was stroked Open by using the valve control circuit to de-energize the contactors, which removed motive power from the valve when the Open position was reached. This loss of power caused by the valve control circuit demonstrated the MOV failed "As-Is" (Open) when motive power was removed. Actual valve position was verified locally. Each MOV was also stroked Closed by using the valve control circuit to de-energize the contactors, which removed motive power from the valve when the Closed position was reached. This loss of power

caused by the valve control circuit demonstrated that each MOV failed “As-Is” (Closed) when motive power was removed. Actual valve position was verified locally.

Reference 1 verified the Air Operated Valves (AOVs) go to the loss of motive power position. For RNS-PL-V057A and -V057B (RNS Pump Miniflow Air-Operated Isolation Valves) testing, the valves were Closed and verified Closed locally and in the MCR. Power was removed from the solenoid valves supplying air to the valve actuators which removed motive power to the valves. RNS-PL-V057A and -V057B were verified to be Open locally and in the MCR. For RNS PL-V061 (RNS Return from Chemical and Volume Control System (CVS) Containment Isolation Valve) testing, the valve was Opened and verified Open locally and in the MCR. Power was removed from the solenoid valve supplying air to the valve actuator which removed motive power to the valve. RNS-PL-V061 was verified to Close locally and in the MCR.

The completed Unit 4 testing results (References 1 and 2), as documented in SV4-RNS-ITR-802382 (Reference 13), confirmed that upon loss of motive power, each remotely operated valve identified in Table 2.3.6-1 assumed the indicated loss of motive power position.

Controls in the MCR cause pumps identified in Table 2.3.6-3 to perform the control function.

Testing was performed in accordance with Unit 4 component test work package 1191320 (Reference 1) to verify that controls in the MCR cause pumps identified in Attachment E to perform the control function.

Reference 1 established the initial conditions with both RNS pumps stopped. The pumps were started using Plant Control System (PLS) controls in the MCR. Both RNS pumps were verified to have started locally and in the MCR.

The completed Unit 4 component test results (Reference 1), as documented in SV4-RNS-ITR-804382 (Reference 14) confirmed that controls in the MCR cause pumps identified in Table 2.3.6-3 to perform the control function.

Displays of the RNS parameters identified in Table 2.3.6-3 are retrieved in the MCR.

An inspection was performed to verify displays of the RNS parameters identified in Attachment F are retrieved in the MCR.

Inspection was performed at an MCR operator workstation and visually confirmed that when each of the displays of parameters identified in Attachment F is summoned at an MCR workstation, the summoned plant parameter appears on a display monitor at the MCR workstation. The results as documented in SV4-RNS-ITR-800382 (Reference 11), confirmed that displays of the RNS parameters identified in Table 2.3.6-3 were retrieved in the MCR.

References 1 through 14 are available for NRC inspection as part of ITAAC 2.3.06.11a Unit 4 Completion Package (Reference 15).

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 2.3.06.11a (Reference 15) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.3.06.11a 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. SV4-RNS-T0W-1191320, Rev. 0, "Perform ITAAC 2.3.06.11a Items 10, 11.a, 12.b, 13 and 14 RNS"
2. SV4-RNS-T0W-1191390, "PLANT INTERFACE TESTING OF MODULE SV4-PLS-JD-DPU019 REFERENCE VALVE SV4-RNS-PL-V055"
3. SV4-RNS-T0W-1285540, Rev. 0, "Perform PMS Component Test for SV4-RNS-PL-V001A"
4. SV4-RNS-T0W-1285541, Rev. 0, "Perform PMS Component Test SV4-RNS-PL-V001B"
5. SV4-RNS-T0W-1245225, Rev. 0, "Perform Plant PMS / PLS Interface Test for SV4-RNS-PL-V002A"
6. SV4-RNS-T0W-1245226, Rev. 0, "Perform Plant PMS / PLS Interface Test for SV4-RNS-PL-V002B"
7. SV4-RNS-T0W-1245469, Rev. 0, "Perform PLS / PMS Component Interface Test SV4-RNS-PL-V011"
8. SV4-RNS-T0W-1245471, Rev. 0, "Perform Plant PMS / PLS Interface Test for SV4-RNS-PL-V022"
9. SV4-RNS-T0W-1245483, Rev. 0, "Perform Plant PMS / PLS Interface Test for SV4-RNS-PL-V023"
10. SV4-RNS-T0W-1247406, Rev. 0, "Perform ITAAC PMS CIM SV4-RNS-PL-V061 Component Test"
11. SV4-RNS-ITR-800382, Rev 0, "Unit 4 Testing Results of: ITAAC 2.3.06.11.a (Items 10 and 14)"
12. SV4-RNS-ITR-801382, Rev 0, "Unit 4 Testing Results of: ITAAC 2.3.06.11.a (Item 11.b)"
13. SV4-RNS-ITR-802382, Rev 0, "Unit 4 Inspection Results of: ITAAC 2.3.06.11a (Items 11.a & 12.b)"
14. SV4-RNS-ITR-804382, Rev 0, "Unit 4 Inspection Results of: ITAAC 2.3.06.11a (Item 13)"
15. 2.3.06.11a-U4-CP-Rev0, ITAAC Completion Package

Attachment A

***Excerpt from COL Appendix C Table 2.3.6-1**

Table 2.3.6-1		
*Equipment Name	*Tag No.	*Safety-Related Display
RCS Inner Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V001A	Yes (Valve Position)
RCS Inner Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V001B	Yes (Valve Position)
RCS Outer Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V002A	Yes (Valve Position)
RCS Outer Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V002B	Yes (Valve Position)
RNS Discharge Motor-operated Containment Isolation Valve	RNS-PL-V011	Yes (Valve Position)
RNS Suction Header Motor-operated Containment Isolation Valve	RNS-PL-V022	Yes (Valve Position)
RNS Suction from IRWST Motor-operated Isolation Valve	RNS-PL-V023	Yes (Valve Position)
RNS Return from Chemical and Volume Control System (CVS) Containment Isolation Valve	RNS-PL-V061	Yes (Valve Position)

Attachment B

***Excerpt from COL Appendix C Table 2.3.6-1**

Table 2.3.6-1			
*Equipment Name	*Tag No.	*Remotely Operated Valve	*Active Function
RCS Inner Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V001A	Yes	Transfer Closed
RCS Inner Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V001B	Yes	Transfer Closed
RCS Outer Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V002A	Yes	Transfer Closed
RCS Outer Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V002B	Yes	Transfer Closed
RNS Discharge Motor-operated Containment Isolation Valve	RNS-PL-V011	Yes	Transfer Closed
RNS Suction Header Motor-operated Containment Isolation Valve	RNS-PL-V022	Yes	Transfer Closed
RNS Suction from IRWST Motor-operated Isolation Valve	RNS-PL-V023	Yes	Transfer Closed
RNS Return from Chemical and Volume Control System (CVS) Containment Isolation Valve	RNS-PL-V061	Yes	Transfer Closed

Attachment C

***Excerpt from COL Appendix C Table 2.3.6-1**

Table 2.3.6-1			
*Equipment Name	*Tag No.	*Control PMS	*Active Function
RCS Inner Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V001A	Yes	Transfer Closed
RCS Inner Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V001B	Yes	Transfer Closed
RCS Outer Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V002A	Yes	Transfer Closed
RCS Outer Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V002B	Yes	Transfer Closed
RNS Discharge Motor-operated Containment Isolation Valve	RNS-PL-V011	Yes	Transfer Closed
RNS Suction Header Motor-operated Containment Isolation Valve	RNS-PL-V022	Yes	Transfer Closed
RNS Suction from IRWST Motor-operated Isolation Valve	RNS-PL-V023	Yes	Transfer Closed
RNS Return from Chemical and Volume Control System (CVS) Containment Isolation Valve	RNS-PL-V061	Yes	Transfer Closed

Attachment D

***Excerpt from COL Appendix C Table 2.3.6-1**

Table 2.3.6-1		
*Equipment Name	*Tag No.	* Loss of Motive Power Position
RCS Inner Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V001A	As Is
RCS Inner Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V001B	As Is
RCS Outer Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V002A	As Is
RCS Outer Hot Leg Suction Motor-operated Isolation Valve	RNS-PL-V002B	As Is
RNS Discharge Motor-operated Containment Isolation Valve	RNS-PL-V011	As Is
RNS Suction Header Motor-operated Containment Isolation Valve	RNS-PL-V022	As Is
RNS Suction from IRWST Motor-operated Isolation Valve	RNS-PL-V023	As Is
RNS Discharge to IRWST Motor-operated Isolation Valve	RNS-PL-V024	As Is
RNS Suction from Cask Loading Pit Motor-operated Isolation Valve	RNS-PL-V055	As Is
RNS Pump Miniflow Air-Operated Isolation Valve	RNS-PL-V057A	Open
RNS Pump Miniflow Air-Operated Isolation Valve	RNS-PL-V057B	Open
RNS Return from Chemical and Volume Control System (CVS) Containment Isolation Valve	RNS-PL-V061	Closed

Attachment E

***Excerpt from COL Appendix C Table 2.3.6-3**

Table 2.3.6-3		
*Equipment Name	*Tag No.	*Control Function
RNS Pump 1A (Motor)	RNS-MP-01A	Start
RNS Pump 1B (Motor)	RNS-MP-01B	Start

Attachment F

***Excerpt from COL Appendix C Table 2.3.6-3**

Table 2.3.6-3		
*Equipment Name	*Tag No.	*Display
RNS Pump 1A (Motor)	RNS-MP-01A	Yes (Run Status)
RNS Pump 1B (Motor)	RNS-MP-01B	Yes (Run Status)
RNS Flow Sensor	RNS-01A	Yes
RNS Flow Sensor	RNS-01B	Yes
RNS Suction from Cask Loading Pit Isolation Valve (Position Indicator)	RNS-PL-V055	Yes
RNS Pump Miniflow Isolation Valve (Position Indicator)	RNS-PL-V057A	Yes
RNS Pump Miniflow Isolation Valve (Position Indicator)	RNS-PL-V057B	Yes