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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3
ITAAC Closure Notification on Completion of ITAAC 2.7.01.14 [Index Number 700]

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 2.7.01.14 [Index Number 700]. This ITAAC verified that the Nuclear Island Nonradioactive Ventilation System (VBS) fans start and run, controls in the Main Control Room (MCR) operate the designated VBS components, VBS valves are tested as specified, VBS displays can be retrieved in the MCR and the background noise level in MCR and Remote Shutdown Room (RSR) does not exceed 65 dB(A) when VBS is operating. 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" (Reference 1), 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,

A handwritten signature in cursive script that reads "Jamie Coleman".

Jamie M. Coleman
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3
Completion for ITAAC 2.7.01.14 [Index Number 700]

JMC/NJL/sfr

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Southern Nuclear Operating Company
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Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3
Completion for ITAAC 2.7.01.14 [Index Number 700]

ITAAC Statement

Design Commitment:

- 8.d) The VBS provides ventilation cooling via the ancillary equipment in Table 2.7.1-3 to the MCR and the division B&C Class 1E I&C rooms.
9. Safety-related displays identified in Table 2.7.1-1 can be retrieved in the MCR.
- 10.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.7.1-1 to perform their active functions.
- 10.b) The valves identified in Table 2.7.1-1 as having PMS control perform their active safety function after receiving a signal from the PMS.
11. After loss of motive power, the remotely operated valves identified in Table 2.7.1-1 assume the indicated loss of motive power position.
12. Controls exist in the MCR to cause the components identified in Table 2.7.1-3 to perform the listed function.
13. Displays of the parameters identified in Table 2.7.1-3 can be retrieved in the MCR.
14. The background noise level in the MCR and RSR does not exceed 65 dB(A) when the VBS is operating.

Inspections, Tests, Analyses:

Testing will be performed on the components in Table 2.7.1-3.

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 2.7.1-1 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 on the components in Table 2.7.1-3 using controls in the MCR.

Inspection will be performed for retrievability of the parameters in the MCR.

The as-built VBS will be operated, and background noise levels in the MCR and RSR will be measured.

Acceptance Criteria:

The fans start and run.

Safety-related displays identified in Table 2.7.1-1 can be retrieved in the MCR.

Controls in the MCR operate to cause the remotely operated valves identified in Table 2.7.1-1 to perform their active functions.

The valves identified in Table 2.7.1-1 as having PMS control perform their active safety function after receiving a signal from PMS.

Upon loss of motive power, each remotely operated valves identified in Table 2.7.1-1 assumes the indicated loss of motive power position.

Controls in the MCR operate to cause the components listed in Table 2.7.1 -3 to perform the listed functions.

The displays identified in Table 2.7.1-3 can be retrieved in the MCR.

The background noise level in the MCR and RSR does not exceed 65 dB(A) when the VBS is operating.

ITAAC Determination Basis

Multiple ITAAC were performed to verify by testing and inspections that the Nuclear Island Nonradioactive Ventilation System (VBS) provides ventilation cooling via the ancillary equipment in Combined License (COL) Appendix C Table 2.7.1-3 (Attachment A) to the Main Control Room (MCR) and the division B&C Class 1E I&C rooms. Testing was performed to demonstrate that controls exist in the MCR to cause the remotely operated valves in COL Appendix C Table 2.7.1-1 (Attachment C) to perform their active functions, that the valves identified in Table 2.7.1-1 (Attachment D) as having Protection and Safety Monitoring System (PMS) control perform their active safety function after receiving a signal from PMS and that after a loss of motive power, the remotely operated valves identified in Table 2.7.1-1 (Attachment E) assume the indicated loss of motive power position. Testing was also performed to demonstrate that controls exist in the MCR to cause the components identified in Table 2.7.1-3 (Attachment F) to perform the listed function and the VBS system was operated, and the background noise level was verified to be ≤ 65 dB(A) in the MCR and the Remote Shutdown Room (RSR). Inspections were also performed to demonstrate the safety-related displays identified in Table 2.7.1-1 (Attachment B) could be retrieved in the MCR and that the displays of the parameters identified in Table 2.7.1-3 (Attachment G) could be retrieved in the MCR.

The fans start and run.

Testing was performed in accordance with Unit 3 component test work packages identified in SV3-VBS-ITR-801700 (Reference 3) to verify that the ancillary fans listed in Attachment A started and ran. Testing directed the performance of ancillary fan operational tests, which locally started each fan in Attachment A, ran each fan for 15 minutes, and then stopped each fan.

This testing confirmed that the fans start and run.

Safety-related displays identified in Table 2.7.1-1 can be retrieved in the MCR.

An inspection was performed in accordance with Unit 3 component test work packages identified in SV3-VBS-ITR-800700 (Reference 2) for VBS component indication verifications, and visually confirmed that when each of the safety-related displays identified in Attachment B was summoned at the MCR PMS Visual Display Units (VDUs), the summoned safety-related display appeared on the PMS VDU.

The Unit 3 component test results (References 2) confirmed that the Unit 3 safety-related displays listed in Table 2.7.1-1 can be retrieved in the MCR.

Controls in the MCR operate to cause the remotely operated valves identified in Table 2.7.1-1 to perform their active functions.

Testing was performed in accordance with Unit 3 component test work packages identified in SV3-VBS-ITR-802700 (Reference 4) to verify that controls in the MCR operated to cause the remotely operated valves identified in Attachment C to perform their active function. At an MCR operator workstation, the valves in Attachment C were verified to be Open and verified locally. Then each valve was stroked Closed using the Plant Control System (PLS) at an operator workstation and verified in the MCR and locally to go closed.

Unit 3 component test results (Reference 4) confirmed that controls in the MCR operate to cause the remotely operated valves identified in Table 2.7.1-1 to perform their active function.

The valves identified in Table 2.7.1-1 as having PMS control perform their active safety function after receiving a signal from PMS.

Testing was performed in accordance with Unit 3 component test packages identified in SV3-VBS-ITR-802700 (Reference 4). These component test packages verified that the valves in Attachment D performed their active function after a signal was generated by PMS.

Testing identified in Reference 4 established initial conditions with each valve verified locally to be in the Open position. An actuation signal was generated by PMS using the PMS Maintenance and Test Panel (MTP) to cause each valve to Close. Each valve was verified locally and in the MCR to be Closed after the receipt of the actuation signal.

The Unit 3 component test package results in Reference 4 confirmed that the valves identified in Table 2.7.1-1 as having PMS control performed their active safety function after receiving a signal from PMS.

Upon loss of motive power, each remotely operated valves identified in Table 2.7.1-1 assumes the indicated loss of motive power position.

Testing was performed in accordance with the Unit 3 component test work package identified in SV3-VBS-ITR-802700 (Reference 4) that verified upon loss of motive power, each remotely operated valves identified in Attachment E assumed the indicated loss of motive power position.

Reference 4 established the initial conditions with the remotely operated valves listed in Attachment E by verifying each MOV locally and in the MCR to be in the Closed position. 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 and in the MCR. 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 and in the MCR. Testing continued until all valves in Attachment E were tested.

The Unit 3 component test results (Reference 4) confirmed that upon loss of motive power, each remotely operated valve identified in Table 2.7.1-1 assumed the indicated loss of motive power position.

Controls in the MCR operate to cause the components listed in Table 2.7.1-3 to perform the listed functions.

Testing was performed in accordance with the Unit 3 component test work package identified in SV3-VBS-ITR-801700 (Reference 3) to verify controls in the MCR operated to cause the components listed in Attachment F to perform their listed function.

Reference 3 directed performance of the plant operating procedures for the VBS system at an MCR operator workstation. The VBS ventilation systems were started using the plant operating procedures and the components listed in Attachment F were verified to start.

Unit 3 component test results (Reference 3) confirmed that controls in the MCR operate to cause the components listed in Table 2.7.1-3 to perform the listed function.

The displays identified in Table 2.7.1-3 can be retrieved in the MCR.

An inspection was performed in accordance with the Unit 3 component test work package identified in SV3-VBS-ITR-800700 (Reference 2) to verify that the displays identified in Attachment G can be retrieved in the MCR.

Reference 2 performed the VBS verifications and visually confirmed that when each of the displays of the component status identified in Attachment G was summoned at an MCR workstation, the summoned plant component status appeared on a display monitor at the MCR workstation.

The Unit 3 component test results (Reference 2) confirmed that the displays identified in Table 2.7.1-3 can be retrieved in the MCR.

The background noise level in the MCR and RSR does not exceed 65 dB(A) when the VBS is operating.

Testing was performed in accordance with the Unit 3 preoperational test procedure identified in SV3-VBS-ITR-803700 (Reference 5) to verify that the background noise level in the MCR and the Remote Shutdown Room (RSR) does not exceed 65 dB(A) when the VBS is operating.

Testing identified in Reference 5 was performed by placing one train of VBS in operation with one train of Division A/C Class 1E Electrical Subsystem, and one train of the Division B/D Class 1E Electrical Subsystem in service. After the ventilation systems were in service for more than 15 minutes, noise level readings were taken at 8 locations in the MCR and 1 location in the RSR. Ten readings were taken at five-minute intervals. The readings at each location were averaged and corrected for measurement uncertainty and verified to be ≤ 65 dB(A). Then both supplemental filtration units were also placed in service, and after 15 minutes, the noise level readings were taken again and verified to be ≤ 65 dB(A). This testing was repeated with the opposite VBS ventilation train in service. The maximum noise level obtained was 61.8 dB(A) for the Unit 3 MCR and 59.4 dB(A) for the Unit 3 RSR.

The Unit 3 preoperational test results (Reference 5) confirmed that the background noise level in the MCR and RSR does not exceed 65 dB(A) when the VBS is operating.

References 2 through 5 are available for NRC inspection as part of the ITAAC 2.7.01.14 Unit 3 Completion Package (Reference 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 2.7.01.14 (Reference 7) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.7.01.14 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. Combined License Vogtle Electric Generating Plant Unit 3 Appendix C, Amendment 188.
2. SV3-VBS-ITR-800700, Rev. 0, "Unit 3 VBS Main Control Room Displays: ITAAC 2.7.01.14 Items 9 and 13"
3. SV3-VBS-ITR-801700, Rev. 0, "Unit 3 VBS Fans Verification ITAAC 2.7.01.14 Items 8d and 12"
4. SV3-VBS-ITR-802700, Rev. 0, "Unit 3 VBS Valve Verification ITAAC 2.7.01.14 Items 10a, 10b, and 11"
5. SV3-VBS-ITR-803700, Rev. 0, "Unit 3 Noise Level: ITAAC 2.7.01.14 Item 14"
6. NEI 08-01, Rev. 5 - Corrected, "Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52"
7. 2.7.01.14-U3-CP-Rev0, "ITAAC Completion Package"

Attachment A

Excerpt from COL Appendix C Table 2.7.1-3*

Table 2.7.1-3*			
Equipment	Tag No.	Display	Control Function
MCR Ancillary Fans	VBS-MA-10A VBS-MA-10B	No	-
Division B Room Ancillary Fan	VBS-MA-11	No	-
Division C Room Ancillary Fan	VBS-MA-12	No	-

Attachment B

Excerpt from COL Appendix C Table 2.7.1-1*

Table 2.7.1-1*		
*Equipment Name	*Tag No.	*Safety-Related Display
MCR Supply Air Isolation Valve	VBS-PL-V186	Yes (Valve Position)
MCR Supply Air Isolation Valve	VBS-PL-V187	Yes (Valve Position)
MCR Return Air Isolation Valve	VBS-PL-V188	Yes (Valve Position)
MCR Return Air Isolation Valve	VBS-PL-V189	Yes (Valve Position)
MCR Exhaust Air Isolation Valve	VBS-PL-V190	Yes (Valve Position)
MCR Exhaust Air Isolation Valve	VBS-PL-V191	Yes (Valve Position)
MCR SDS (Vent) Isolation Valve	SDS-PL-V001	Yes (Valve Position)
MCR SDS (Vent) Isolation Valve	SDS-PL-V002	Yes (Valve Position)

Attachment C

Excerpt from COL Appendix C Table 2.7.1-1*

Table 2.7.1-1*			
*Equipment Name	*Tag No.	*Remotely Operated Valve	*Active Function
MCR Supply Air Isolation Valve	VBS-PL-V186	Yes	Transfer Closed
MCR Supply Air Isolation Valve	VBS-PL-V187	Yes	Transfer Closed
MCR Return Air Isolation Valve	VBS-PL-V188	Yes	Transfer Closed
MCR Return Air Isolation Valve	VBS-PL-V189	Yes	Transfer Closed
MCR Exhaust Air Isolation Valve	VBS-PL-V190	Yes	Transfer Closed
MCR Exhaust Air Isolation Valve	VBS-PL-V191	Yes	Transfer Closed
MCR SDS (Vent) Isolation Valve	SDS-PL-V001	Yes	Transfer Closed
MCR SDS (Vent) Isolation Valve	SDS-PL-V002	Yes	Transfer Closed

Attachment D

Excerpt from COL Appendix C Table 2.7.1-1

Table 2.7.1-1*			
*Equipment Name	*Tag No.	* Control PMS/DAS	*Active Function
MCR Supply Air Isolation Valve	VBS-PL-V186	Yes/No	Transfer Closed
MCR Supply Air Isolation Valve	VBS-PL-V187	Yes/No	Transfer Closed
MCR Return Air Isolation Valve	VBS-PL-V188	Yes/No	Transfer Closed
MCR Return Air Isolation Valve	VBS-PL-V189	Yes/No	Transfer Closed
MCR Exhaust Air Isolation Valve	VBS-PL-V190	Yes/No	Transfer Closed
MCR Exhaust Air Isolation Valve	VBS-PL-V191	Yes/No	Transfer Closed
MCR SDS (Vent) Isolation Valve	SDS-PL-V001	Yes/No	Transfer Closed
MCR SDS (Vent) Isolation Valve	SDS-PL-V002	Yes/No	Transfer Closed

Attachment E

Excerpt from COL Appendix C Table 2.7.1-1*

Table 2.7.1-1*			
*Equipment Name	*Tag No.	*Remotely Operated Valve	* Loss of Motive Power Position
MCR Supply Air Isolation Valve	VBS-PL-V186	Yes	As Is
MCR Supply Air Isolation Valve	VBS-PL-V187	Yes	As Is
MCR Return Air Isolation Valve	VBS-PL-V188	Yes	As Is
MCR Return Air Isolation Valve	VBS-PL-V189	Yes	As Is
MCR Exhaust Air Isolation Valve	VBS-PL-V190	Yes	As Is
MCR Exhaust Air Isolation Valve	VBS-PL-V191	Yes	As Is
MCR SDS (Vent) Isolation Valve	SDS-PL-V001	Yes	As Is
MCR SDS (Vent) Isolation Valve	SDS-PL-V002	Yes	As Is

Attachment F

Excerpt from COL Appendix C Table 2.7.1-3*

Table 2.7.1-3*		
*Equipment	*Tag No.	*Control Function
Supplemental Air Filtration Unit Fan A	VBS-MA-03A	Start
Supplemental Air Filtration Unit Fan B	VBS-MA-03B	Start
MCR/CSA Supply Air Handling Units (AHU) A Fans	VBS-MA-01A VBS-MA-02A	Start
MCR/CSA Supply AHU B Fans	VBS-MA-01B VBS-MA-02B	Start
Division "A" and "C" Class 1E Electrical Room AHU A Fans	VBS-MA-05A VBS-MA-06A	Start
Division "A" and "C" Class 1E Electrical Room AHU C Fans	VBS-MA-05C VBS-MA-06C	Start
Division "B" and "D" Class 1E Electrical Room AHU B Fans	VBS-MA-05B VBS-MA-06B	Start
Division "B" and "D" Class 1E Electrical Room AHU D Fans	VBS-MA-05D VBS-MA-06D	Start
Division "A" and "C" Class 1E Battery Room Exhaust Fans	VBS-MA-07A VBS-MA-07C	Start
Division "B" and "D" Class 1E Battery Room Exhaust Fans	VBS-MA-07B VBS-MA-07D	Start

Attachment G

Excerpt from COL Appendix C Table 2.7.1-3*

Table 2.7.1-3*		
*Equipment	*Tag No.	* Display
Supplemental Air Filtration Unit Fan A	VBS-MA-03A	Yes (Run Status)
Supplemental Air Filtration Unit Fan B	VBS-MA-03B	Yes (Run Status)
MCR/CSA Supply Air Handling Units (AHU) A Fans	VBS-MA-01A VBS-MA-02A	Yes (Run Status)
MCR/CSA Supply AHU B Fans	VBS-MA-01B VBS-MA-02B	Yes (Run Status)
Division "A" and "C" Class 1E Electrical Room AHU A Fans	VBS-MA-05A VBS-MA-06A	Yes (Run Status)
Division "A" and "C" Class 1E Electrical Room AHU C Fans	VBS-MA-05C VBS-MA-06C	Yes (Run Status)
Division "B" and "D" Class 1E Electrical Room AHU B Fans	VBS-MA-05B VBS-MA-06B	Yes (Run Status)
Division "B" and "D" Class 1E Electrical Room AHU D Fans	VBS-MA-05D VBS-MA-06D	Yes (Run Status)
Division "A" and "C" Class 1E Battery Room Exhaust Fans	VBS-MA-07A VBS-MA-07C	Yes (Run Status)
Division "B" and "D" Class 1E Battery Room Exhaust Fans	VBS-MA-07B VBS-MA-07D	Yes (Run Status)

