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U.S. Nuclear Regulatory Commission  
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Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Unit 3  
ITAAC Closure Notification on Completion of ITAAC Item 2.7.05.02.i [Index Number 719]

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 2.7.05.02.i [Index Number 719]. The subject ITAAC verifies that the Radiologically Controlled Area Ventilation System (VAS) maintains each building area at a slightly negative pressure relative to the atmosphere or adjacent clean plant areas, and that displays of the VAS parameters specified can be retrieved in the Main Control Room (MCR). 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) request 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,

A handwritten signature in black ink that reads "Jamie Coleman". The signature is fluid and cursive, with the first name "Jamie" and last name "Coleman" clearly distinguishable.

Jamie M. Coleman  
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3  
Completion of ITAAC 2.7.05.02.i [Index Number 719]

JMC/GES/sfr

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**Southern Nuclear Operating Company  
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Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3  
Completion of ITAAC 2.7.05.02.i [Index Number 719]**

## **ITAAC Statement**

### **Design Commitment**

2. The VAS maintains each building area at a slightly negative pressure relative to the atmosphere or adjacent clean plant areas.
3. Displays of the parameters identified in Table 2.7.5-1 can be retrieved in the MCR.

### **Inspections/Tests/Analyses**

- i) Testing will be performed to confirm that the VAS maintains each building at a slightly negative pressure when operating all VAS supply AHUs and all VAS exhaust fans.
- ii) Testing will be performed to confirm the ventilation flow rate through the auxiliary building fuel handling and rail car bay/solid radwaste system areas when operating all VAS supply AHUs and all VAS exhaust fans.
- iii) Testing will be performed to confirm the auxiliary building radiologically controlled area ventilation flow rate when operating all VAS supply AHUs and all VAS exhaust fans.

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

### **Acceptance Criteria**

- i) The time average pressure differential in the served areas of the annex, fuel handling and radiologically controlled auxiliary buildings as measured by each of the instruments identified in Table 2.7.5-1 is negative.
- ii) A report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 10,710 cfm.
- iii) A report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 22,500 cfm.

The displays identified in Table 2.7.5-1 can be retrieved in the MCR.

## **ITAAC Determination Basis**

The subject ITAAC verified that the time average pressure differential in the served areas of the annex, fuel handling and radiologically controlled auxiliary buildings as measured by each of the instruments identified in VEGP Combined License (COL) Appendix C Table 2.7.5-1 (Attachment A) was negative and that displays of the parameters identified in Attachment A were retrieved in the Main Control Room (MCR). Testing was performed and verified that a report exists and concluded that the calculated exhaust flow rate based on the measured flow rates was greater than or equal to 10,710 cfm through the auxiliary building fuel handling and rail car bay/solid radwaste system areas when operating all Radiologically Controlled Area Ventilation System (VAS) supply Air Handling Units (AHUs) and all VAS exhaust fans, and that a report exists and concluded that the calculated exhaust flow rate based on the measured flow rates was greater than or equal to 22,500 cfm through the auxiliary building radiologically controlled area when operating all VAS supply AHUs and all VAS exhaust fans.

i) The time average pressure differential in the served areas of the annex, fuel handling and radiologically controlled auxiliary buildings as measured by each of the instruments identified in Table 2.7.5-1 is negative.

Testing was performed as documented in Reference 2 to confirm the time average pressure differential in the served areas of the annex, fuel handling and radiologically controlled auxiliary buildings as measured by each of the instruments identified in Attachment A was negative.

Testing commenced by verifying the Annex/Auxiliary Building Ventilation System, the Fuel Handling Area (FHA) Ventilation System, unit heaters, unit coolers, duct heaters and humidifiers were in service. An Ovation trend was established using the instruments in Attachment A and the test was run for a minimum of 12 hours. The calculated average value for each instrument was recorded in Reference 2 and was verified to meet the acceptance criteria.

The results of the testing confirmed that the time average pressure differential in the served areas of the annex, fuel handling and radiologically controlled auxiliary buildings as measured by each of the instruments identified in Table 2.7.5-1 was negative for Unit 3.

ii) A report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 10,710 cfm.

Testing was performed as documented in Reference 2 to confirm that the calculated exhaust flow rate based on the measured flow rates through the auxiliary building fuel handling and rail car bay/solid radwaste system areas when operating all VAS supply AHUs and all VAS exhaust fans was greater than or equal to 10,710 cfm.

Following completion of the Annex/Auxiliary Building Ventilation System flow balance, the exhaust branch flowrates for the auxiliary building fuel handling and rail car bay/solid radwaste system were measured using appropriate flow measurement equipment. The flow balance and final exhaust branch flowrate measurements were performed with all VAS supply AHUs and all VAS exhaust fans in service. The total exhaust flow rate was calculated based on the sum of the measured exhaust branch flowrates and is documented in Reference 2.

The exhaust flow rate for Unit 3 is 12,228 cfm which confirms that a report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 10,710 cfm.

iii) A report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 22,500 cfm.

Testing was performed as documented in Reference 2 to confirm that the calculated exhaust flow rate based on the measured flow rates through the auxiliary building radiologically controlled area when operating all VAS supply AHUs and all VAS exhaust fans was greater than or equal to 22,500 cfm.

Following completion of the Annex/Auxiliary Building Ventilation System flow balance, the exhaust branch flowrates for the auxiliary building radiologically controlled area were measured using appropriate flow measurement equipment. The flow balance and final exhaust branch flowrate measurements were performed with all VAS supply AHUs and all VAS exhaust fans in service. The

total exhaust flow rate was calculated based on the sum of the measured exhaust branch flowrates and is documented in Reference 2.

The exhaust flow rate for Unit 3 is 36,601 cfm which confirms that a report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 22,500 cfm.

The displays identified in Table 2.7.5-1 can be retrieved in the MCR.

An inspection was performed to verify the retrievability of the Vogtle Electric Generating Plant (VEGP) Unit 3 plant parameters in the MCR. The inspection for retrievability confirms that the displays of the parameters identified in Combined License (COL) Appendix C Table 2.7.5-1 (Attachment A) can be retrieved in the MCR.

The inspection was performed as documented in Reference 1 and visually confirms that when each of the displays of parameters identified in Attachment A is summoned at an MCR workstation, the summoned plant parameter appears on a display monitor at that MCR workstation.

The results from Reference 1 confirm that the Unit 3 plant parameter displays identified in Table 2.7.5-1 can be retrieved in the MCR.

The results of the testing and inspections confirm that the time average pressure differential in the served areas of the annex, fuel handling and radiologically controlled auxiliary buildings as measured by each of the instruments identified in Table 2.7.5-1 is negative, a report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 10,710 cfm, a report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 22,500 cfm, and the displays identified in Table 2.7.5-1 can be retrieved in the MCR.

References 1 and 2 are available for NRC inspection as part of Unit 3 ITAAC 2.7.05.02.i Completion Package (Reference 3).

### **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 were no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.7.05.02.i (Reference 2) and is available for NRC review.

### **ITAAC Completion Statement**

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.7.05.02.i 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. SV3-VAS-ITR-800719, Rev 0, "Unit 3 Radiologically Controlled Area Ventilation System Displays: ITAAC 2.7.05.02.i Item 3" NRC Index Number: 719
2. SV3-VAS-ITR-801719, Rev 0, "Unit 3 Radiologically Controlled Area Ventilation System Operational Testing: Item 2" NRC Index Number: 719
3. 2.7.05.02.i-U3-CP-Rev0, ITAAC Completion Package

**Attachment A**

Excerpt from Unit 3 COL Appendix C Table 2.7.5-1\*

| <b>Equipment*</b>                                   | <b>Tag No.*</b> | <b>Display*</b> | <b>Average Pressure</b> |
|---|-----------------|-----------------|-------------------------|
| *Fuel Handling Area Pressure Differential Indicator | *VAS-030        | *Yes            | -0.274 in wg            |
| *Annex Building Pressure Differential Indicator     | *VAS-032        | *Yes            | -0.0998 in wg           |
| *Auxiliary Building Pressure Differential Indicator | *VAS-033        | *Yes            | -0.252 in wg            |
| *Auxiliary Building Pressure Differential Indicator | *VAS-034        | *Yes            | -0.197 in wg            |