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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 C.2.6.12.03 [Index Number 673]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), 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 C.2.6.12.03 [Index Number 673] demonstrating the as-built offsite circuit for Vogtle Unit 3 can supply the required voltage at the interface with the onsite ac power system. 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 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 David Woods at 706-848-6903.

Respectfully submitted,

Michael J. Yox  
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3  
Completion of ITAAC C.2.6.12.03 [Index Number 673]

MJY/RAS/amw

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**Southern Nuclear Operating Company  
ND-17-1350  
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3  
Completion of ITAAC C.2.6.12.03 [Index Number 673]**

### **ITAAC Statement**

#### **Design Commitment:**

3. During steady state operation, each offsite power source is capable of supplying required voltage to the interface with the onsite ac power system that will support operation of assumed loads during normal, abnormal and accident conditions.

#### **Inspections, Tests, Analyses:**

Analyses of the as-built offsite circuit will be performed to evaluate the capability of each offsite circuit to supply the voltage requirements at the interface with the onsite ac power system.

#### **Acceptance Criteria:**

A report exists and concludes that during steady state operation each as-built offsite circuit is capable of supplying the voltage at the interface with the onsite ac power system that will support operation of assumed loads during normal, abnormal and accident conditions.

### **ITAAC Determination Basis**

Analyses were performed to demonstrate that during steady state operation each as-built offsite circuit to Vogtle Unit 3 is capable of supplying the voltage at the interface with the onsite alternating current (ac) power system that will support operation of assumed loads during normal, abnormal and accident conditions.

The offsite power system of Plant Vogtle Units 1, 2, 3 and 4 was modeled in proprietary power transmission system planning software using the 2017 version 1D series Transmission Planning base cases for 2017-2022 Summer Peak load conditions and Spring Valley load conditions for the offsite power system. The plant load assumptions modeled for Units 1 and 2 were based on historical information. The plant load assumptions modeled for Units 3 and 4 were based on conservative values, which are greater than the maximum calculated loads for normal operating conditions, and bound the abnormal and accident condition loads. Units 3 and 4 plant loads are defined in the report "Assumed Loads During Normal, Abnormal and Accident Conditions", attached to Memorandum ND-17-1189 (Reference 1).

Multiple scenarios were utilized in the analyses, including nuclear unit operating scenarios and transmission element contingencies in accordance with 10 CFR Appendix A to Part 50 General Design Criterion (GDC) 17. The analyses also include scenarios of one unit in Loss of Coolant Accident (LOCA) conditions with the other three units off-line. Local area generation sources that could significantly impact the Plant Vogtle 230 kilovolt (kV) bus voltage were modeled off-line. Local area capacitor banks and shunt reactors were modeled off-line in the initial scenarios for conservatism. For any initial scenario that voltage transients resulted in levels beyond specified limits, the scenario was rerun with the capacitor banks or shunt reactors online. In each case the results were satisfactory.

The results of the analyses of each scenario modeled with the Summer Peak or Spring Valley load conditions were within the acceptable range of 95% to 105% per unit steady-state, as specified in the Updated Final Safety Analysis Report (UFSAR) Table 8.2-201.

The analyses report C.2.6.12.03-PCD-Rev 0, "2017 Vogtle FSAR Report Steady-State" (Reference 2), concludes that during steady state operation each as-built offsite circuit for Vogtle Unit 3 is capable of supplying the voltage at the interface with the onsite ac power system that will support operation of assumed loads during normal, abnormal and accident conditions.

### **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 determined that there are no relevant ITAAC findings associated with this ITAAC. The ITAAC finding closure review document number is included in the ITAAC C.2.6.12.03 Completion Package (Reference 3) and available for NRC inspection.

### **ITAAC Completion Statement**

Based on the above information, SNC hereby notifies the NRC that ITAAC C.2.6.12.03 was performed for Vogtle 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. Southern Nuclear Intercompany Correspondence, ND-17-1189, "Assumed Loads During Normal, Abnormal and Accident Conditions", 6/30/17
2. C.2.6.12.03-PCD-Rev 0, "2017 Vogtle FSAR Report Steady-State", 04/21/17
3. C.2.6.12.03-U3-CP Rev. 0, "Vogtle Unit 3 ITAAC C.2.6.12.03 (673) Completion Package", 7/25/17