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SOUTHERN NUCLEAR
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ND-16-1032
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U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on
Completion of ITAAC 2.3.08.02.ii [Index Number 416]

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 2.3.08.02.ii [Index Number 416] for verifying that a report exists and concludes that the heat transfer rate of each Service Water System (SWS) cooling tower cell is greater than or equal to 170 million Btu/hr at a 80.1°F ambient wet bulb temperature and a cold water temperature of 90°F. 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
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MJY/RDH/amm

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.3.08.02.ii [Index Number 416]

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Southern Nuclear Operating Company
ND-16-1032
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.3.08.02.ii [Index Number 416]

ITAAC Statement

Design Commitment:

2. The SWS provides the nonsafety-related function of transferring heat from the component cooling water system to the surrounding atmosphere to support plant shutdown and spent fuel pool cooling.

Inspections, Tests, Analyses:

ii) Inspection will be performed for the existence of a report that determines the heat transfer capability of each cooling tower cell.

Acceptance Criteria:

ii) A report exists and concludes that the heat transfer rate of each cooling tower cell is greater than or equal to 170 million Btu/hr at a 80.1°F ambient wet bulb temperature and a cold water temperature of 90°F.

ITAAC Determination Basis

Multiple ITAAC are performed to demonstrate that the Service Water System (SWS) provides the nonsafety-related function of transferring heat from the component cooling water system (CCS) to the surrounding atmosphere to support plant shutdown and spent fuel pool cooling. This ITAAC requires an inspection for the existence of a report that concludes the heat transfer rate of each cooling tower cell is greater than or equal to 170 million Btu/hr at a 80.1°F ambient wet bulb temperature and a cold water temperature of 90°F.

The SWS cooling tower vendor produced a thermal performance report (Reference 1) that determined the heat transfer capability of each cooling tower. The vendor modeled the cooling tower design in accordance with the Cooling Technology Institute's (CTI) Merkel method, utilizing the CTI algorithms for calculating air properties and the heat transfer performance of the corrugated fill material. The vendor validated the results of the model using performance data from similarly designed towers, acquired in accordance with CTI Acceptance Test Code ATC-105 (Reference 2).

An inspection of the vendor's report was performed to confirm that the heat transfer rate of each cooling tower cell is 170 million Btu/hr at a 80.1°F ambient wet bulb temperature and a cold water temperature of 90°F. The report concludes that each cooling tower cell heat transfer rate in the ITAAC acceptance criteria is met with an air flowrate of 942,692 actual cubic feet per minute (ACFM), which is below the design air flowrate of the cell fan of 1,225,393 ACFM.

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 document number is included in the

Vogtle Unit 4 ITAAC Completion Package for ITAAC 2.3.08.02.ii (Reference 3) and available for NRC inspection.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.3.08.02.ii was performed for VEGP Unit 4 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. SV0-MS70-VDR-001, Rev. 0, "Vogtle Unit 3 and Unit 4 MS70 Service Water System (SWS) Cooling Tower Supplier Thermal Analysis"

2. Cooling Tower Institute (CTI) Acceptance Test Code ATC-105, "Acceptance Test Code for Water Cooling Towers"

3. SVP_SV0_003958, Attachment 1, Submittal of Inspections, Test, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 4 ITAAC 2.3.08.02.ii [COL Index Number 416] (SWS Cooling Tower Heat Transfer Rate)