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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3 and Unit 4
Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load
Item 2.1.02.08d.i [Index Number 32]

Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of February 11, 2019, Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4 Uncompleted Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.1.02.08d.i [Index Number 32] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing this ITAAC. Southern Nuclear Operating Company will, at a later date, provide additional notifications for ITAAC that have not been completed 225-days prior to initial fuel load.

This notification is informed by 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. In accordance with NEI 08-01, this notification includes ITAAC for which required inspections, tests, or analyses have not been performed or have been only partially completed. All ITAAC will be fully completed and all Section 52.99(c)(1) ITAAC Closure Notifications will be submitted to NRC to support the Commission finding that all acceptance criteria are met prior to plant operation, as required by 10 CFR 52.103(g).

This letter contains no new NRC regulatory commitments.

If there are any questions, please contact Tom Petrak at 706-848-1575.

Respectfully submitted,

Michael J. Yox
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.1.02.08d.i [Index Number 32]

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Southern Nuclear Operating Company
ND-19-0126
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.1.02.08d.i [Index Number 32]

ITAAC Statement

Design Commitment

8.d) The RCS provides automatic depressurization during design basis events.

Inspections/Tests/Analyses

i) A low pressure flow test and associated analysis will be conducted to determine the total piping flow resistance of each ADS valve group connected to the pressurizer (i.e., ADS Stages 1-3) from the pressurizer through the outlet of the downstream ADS control valves. The reactor coolant system will be at cold conditions with the pressurizer full of water. The normal residual heat removal pumps will be used to provide injection flow into the RCS discharging through the ADS valves. Inspections and associated analysis of the piping flow paths from the discharge of the ADS valve groups connected to the pressurizer (i.e., ADS Stages 1-3) to the spargers will be conducted to verify the line routings are consistent with the line routings used for design flow resistance calculations.

Acceptance Criteria

i) The calculated ADS piping flow resistance from the pressurizer through the sparger with all valves of each ADS group open is $\leq$ 2.91E-6 ft/gpm^2.

ITAAC Completion Description

Multiple ITAAC are performed to verify that the Reactor Coolant System (RCS) provides automatic depressurization during design basis events. The subject ITAAC requires a low pressure flow test and analysis using the Normal Residual Heat Removal (RNS) pumps to provide injection flow with the RCS at cold conditions with the pressurizer full of water. Inspections of the piping flow paths from the discharge of the ADS valve groups to the spargers are conducted to verify the line routings are consistent with the line routings used for design flow resistance calculations. Together, these inspections, tests, and analyses will demonstrate the flow resistance from the pressurizer through the sparger with all valves in each ADS group open is $\leq$ 2.91E-6 ft/gpm^2.

A preoperational test is conducted in accordance with Unit 3 and Unit 4 preoperational test procedures (References 1 and 2) to determine the flow resistance from the pressurizer through the outlet of the downstream ADS control valves. Initial conditions are established with the RCS filled and the pressurizer is water solid. Temporary flow instruments are installed on the pressurizer surge line, RNS suction line from the In-containment Refueling Water Storage Tank (IRWST), and the ADS 1-3 Group A common tailpipe and pressure transmitters are installed to measure RCS pressure and ADS discharge tailpipe pressure, to determine differential pressure. All instruments are connected to a Data Acquisition System (DAQ).

Both trains of RNS are placed in service to the RCS, and the Group A ADS 1-3 valves are opened. RNS flow is maximized and when flow, pressurizer pressure, and ADS discharge line pressure stabilize the DAQ is started. When sufficient data has been gathered, the RNS is removed from service and the Group A ADS MOVs are closed. The data is collected, and an analysis of the data (References 3 and 4) provides a calculation for flow resistance for ADS 1-3

Group A. This testing and analysis (References 3 and 4) are repeated for ADS 1-3 Group B valves.

An inspection of the discharge piping flow paths from the outlet of the ADS valve groups to the spargers is performed for Unit 3 and Unit 4 (References 5 and 6) by comparing the as-built line routings to the as-designed line routings to verify they are consistent with (bounded by) the line routings used for design flow calculations. This as-built inspection and associated comparison to the as-designed line routing along with the low pressure test and associated analysis form the complete ADS piping flow resistance verification.

The flow resistance for Unit 3 Group A ADS 1-3 valves is calculated to be X.XXE-x ft/gpm^2 and Y.YYE-x ft/gpm^2 for Unit 3 Group B ADS 1-3 valves. The flow resistance for Unit 4 Group A ADS 1-3 valves is calculated to be X.XXE-x ft/gpm^2 and Y.YYE-x ft/gpm^2 for Group B ADS 1-3 valves. These results confirm that the calculated ADS piping flow resistance from the pressurizer through the sparger with all valves of each ADS group open is ≤ 2.91E-6 ft/gpm^2.

References 1 through 6 are available for NRC inspection as part of Unit 3 and Unit 4 ITAAC 2.1.02.08d.i Completion Packages (References 7 and 8).

List of ITAAC Findings

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.

References (available for NRC inspection)

1. 3-PXS-ITPP-503, "Passive Core Cooling System Pre-Core Flow Testing with RV Head Installed Preoperational Test Procedure"
2. 4-PXS-ITPP-503, "Passive Core Cooling System Pre-Core Flow Testing with RV Head Installed Preoperational Test Procedure"
3. 3-ADS-XXX, "ADS Flow Resistance Analysis and Calculation"
4. 4-ADS-XXX, "ADS Flow Resistance Analysis and Calculation"
5. SV3-XXX, "As-built/as-designed ADS 1-3 inspection"
6. SV4-XXX, "As-built/as-designed ADS 1-3 inspection"
7. 2.1.02.08d.i-U3-CP-Rev X, ITAAC Completion Package
8. 2.1.02.08d.i-U4-CP-Rev X, ITAAC Completion Package
9. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"