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AUG 20 2018

Docket Nos.: 52-025
52-026

ND-18-1103
10 CFR 52.99(c)(3)

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3 and Unit 4
Resubmittal Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load
Item 2.3.02.11a.i [Index Number 309]

Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of August 14, 2018, Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4 Uncompleted Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.3.02.11a.i [Index Number 309] 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.

Southern Nuclear Operating Company (SNC) previously submitted Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load for Item 2.3.02.11a.i [Index Number 309] ND-18-0818 [ML18171A124] dated June 18, 2018. This resubmittal supersedes ND-18-0818 in its entirety.

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 2.3.02.11a.i [Index Number 309]

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Southern Nuclear Operating Company
ND-18-1103
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.3.02.11a.i [Index Number 309]

ITAAC Statement

Design Commitment

11.a) The motor-operated and check valves identified in Table 2.3.2-1 perform an active safety-related function to change position as indicated in the table.

Inspections, Tests, Analyses

i) Tests or type tests of motor-operated valves will be performed that demonstrate the capability of the valve to operate under its design conditions.

ii) Inspection will be performed for the existence of a report verifying that the as-built motor-operated valves are bounded by the tested conditions.

Acceptance Criteria

i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.3.2-1 under design conditions.

ii) A report exists and concludes that the as-built motor-operated valves are bounded by the tests or type tests.

ITAAC Completion Description

Multiple Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) are performed to demonstrate that the Chemical and Volume Control System (CVS) motor-operated valves identified in the Combined License (COL) Appendix C, Table 2.3.2-1 perform an active safety-related function to change position as indicated in the table.

i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.3.2-1 under design conditions.

This portion of the subject ITAAC requires tests or type tests of motor-operated valves to be performed to demonstrate the capability of the valve to operate under its design conditions.

The motor-operated valves identified in COL Appendix C, Table 2.3.2-1 are qualified in accordance with the provisions of American Society of Mechanical Engineers (ASME) QME-1-2007, "Qualification of Active Mechanical Equipment Used in Nuclear Power Plants" (Reference 1).

Functional qualification is performed under the design conditions identified in the design specification for the valves (Reference 2) to demonstrate that each motor-operated valve is qualified to perform its designated function when used in its intended service. In accordance with ASME QME-1-2007, qualification is substantiated by demonstrating the relationship between the service requirements and the type testing and analysis that was conducted as part of this qualification program.

Type testing is performed, including natural frequency determination, side load static deflection testing, final static seat and stem leakage testing, steam testing, and water testing, for the

ranges of the pressure, temperature and flow for each valve and the maximum seat-sealing differential pressure. In accordance with ASME QME-1-2007, the functional qualification process for these motor-operated valve assemblies also included valve and actuator internal inspections and measurement, orientation requirements, seat and stem leakage limitations, diagnostic data collection and analysis methods, static and dynamic flow diagnostic testing, and pressure locking and thermal binding evaluations. The qualification also followed the provisions of ASME QME-1-2007 for the extrapolation of functional qualification to another valve assembly, and demonstration of functional capability of production valve assemblies.

The results of the qualification are documented in the Equipment Qualification (EQ) Reports (Reference 3) which are identified in Attachment A for each applicable valve. These reports summarize the test methodology and ASME QME-1-2007 functional qualification that demonstrate that each motor-operated valve changes position as indicated in VEGP Unit 3 and Unit 4 COL Appendix C Table 2.3.2-1 under design conditions.

<u>ii) A report exists and concludes that the as-built motor-operated valves are bounded by the tests or type tests.</u>

This portion of the subject ITAAC requires that an inspection is performed for the existence of a report verifying that the as-built motor-operated valves are bounded by tests or type tests.

The motor-operated valves in VEGP Unit 3 and Unit 4 COL Appendix C Table 2.3.2-1 are verified by tests in accordance with section i) above, to demonstrate the capability of the valves to operate under their design conditions. The EQ Reports in Attachment A identify the equipment mounting employed for the testing and the specific conditions tested.

In accordance with the EQ Walkdown ITAAC Guideline (Reference 4), an inspection is conducted of the CVS to confirm the satisfactory installation of the motor-operated valves. The inspection includes verification of equipment make/model/serial number, verification of equipment mounting and location, and verification that the mechanical and electrical connections are bounded by the tested conditions.

The documentation of installed configuration of the motor-operated valves includes photographs and/or sketches of equipment mounting and connections. The verification of installed component configuration is documented in the As-Built EQ Reconciliation Report(s) (EQRR) (Reference 5).

Attachment A identifies the EQRR which verify that the installed configuration of the motor-operated valves identified in VEGP Unit 3 and Unit 4 COL Appendix C Table 2.3.2-1 are bounded by the tests or type tests.

Together, these EQ Reports and EQRR (References 3 and 5), provide evidence that the ITAAC Acceptance Criteria requirements are met:

- A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.3.2-1 under design conditions; and

- A report exists and concludes that the as-built motor-operated valves are bounded by the tests or type tests.

References 3 and 5 are available for NRC inspection as part of the Unit 3 and Unit 4 ITAAC 2.3.02.11a.i Completion Packages (References 6 and 7, respectively).

List of ITAAC Findings

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 finding review, which includes now-consolidated ITAAC Index 310, found the following relevant ITAAC findings associated with this ITAAC:

- Notice of Nonconformance 99900905/2012-201-01 (closed)
- Notice of Nonconformance 99900905/2012-201-04 (closed)

References (available for NRC inspection)

1. American Society of Mechanical Engineers (ASME) QME-1-2007, "Qualification of Active Mechanical Equipment Used in Nuclear Power Plants"
2. APP-PV01-Z0-001 Revision X, "3" and Larger Motor Operated Gate and Globe Valves, ASME Boiler and Pressure Vessel Code Section III, Class 1, 2, and 3"
3. Equipment Qualification (EQ) Reports as identified in Attachment A
4. ND-XX-XX-001, EQ Walkdown ITAAC Guideline
5. As-Built Equipment Qualification Reconciliation Reports (EQRR) as identified in Attachment A for Units 3 and 4
6. 2.3.02.11a.i-U3-CP- Rev0, ITAAC Completion Package
7. 2.3.02.11a.i-U4-CP- Rev0, ITAAC Completion Package
8. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

Attachment A

System: Chemical and Volume Control System (CVS)

Equipment Name +	Tag No. +	Active Function +	EQ Reports (Reference 3)	As-Built EQRR (Reference 5)*
RCS Purification Motor-operated Isolation Valve	CVS-PL-V001	Transfer Closed	APP-PV01-VBR-011 / APP-PV01-VBR-012	2.3.02.11a.i-U3-EQRR-PCDXXX
RCS Purification Motor-operated Isolation Valve	CVS-PL-V002	Transfer Closed	APP-PV01-VBR-011 / APP-PV01-VBR-012	2.3.02.11a.i-U3-EQRR-PCDXXX
RCS Purification Motor-operated Isolation Valve	CVS-PL-V003	Transfer Closed	APP-PV01-VBR-013 / APP-PV01-VBR-014	2.3.02.11a.i-U3-EQRR-PCDXXX
CVS Makeup Line Containment Isolation Motor-operated Valve	CVS-PL-V090	Transfer Closed	APP-PV01-VBR-011 / APP-PV01-VBR-012	2.3.02.11a.i-U3-EQRR-PCDXXX
CVS Makeup Line Containment Isolation Motor-operated Valve	CVS-PL-V091	Transfer Closed	APP-PV01-VBR-011 / APP-PV01-VBR-012	2.3.02.11a.i-U3-EQRR-PCDXXX

Notes:

+ Excerpt from COL Appendix C Table 2.3.2-1

* The Unit 4 As-Built EQRR are numbered "2.3.02.11a.i-U4-EQRR-PCDXXX"