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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 2.1.02.11a.ii [Index Number 47]

Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of August 26, 2019, Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4 Uncompleted Inspections Tests Analyses and Acceptance Criteria (ITAAC) Item 2.1.02.11a.ii [Index Number 47] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing ITAAC 2.1.02.11a.ii [Index Number 47]. 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 2.1.02.11a.ii [Index Number 47]

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Southern Nuclear Operating Company
ND-19-1118
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4 Completion Plan for Uncompleted ITAAC 2.1.02.11a.ii [Index Number 47]

ITAAC Statement

Design Commitment

10. Safety-related displays identified in Table 2.1.2-1 can be retrieved in the MCR.

11.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.1.2-1 to perform active functions.

11.b) The valves identified in Table 2.1.2-1 as having PMS control perform an active safety function after receiving a signal from the PMS.

12.b) After loss of motive power, the remotely operated valves identified in Table 2.1.2-1 assume the indicated loss of motive power position.

Inspections/Tests/Analyses

Inspection will be performed for retrievability of the safety-related displays in the MCR.

ii) Stroke testing will be performed on the other remotely operated valves listed in Table 2.1.2-1 using controls in the MCR.

ii) Testing will be performed on the other remotely operated valves identified in Table 2.1.2-1 using real or simulated signals into the PMS.

iii) Testing will be performed to demonstrate that remotely operated RCS valves RCS-V001A/B, V002A/B, V003A/B, V011A/B, V012A/B, V013A/B open within the required response times.

Testing of the remotely operated valves will be performed under the conditions of loss of motive power.

Acceptance Criteria

Safety-related displays identified in Table 2.1.2-1 can be retrieved in the MCR.

ii) Controls in the MCR operate to cause the remotely operated valves (other than squib valves) to perform active functions.

ii) The other remotely operated valves identified in Table 2.1.2-1 as having PMS control perform the active function identified in the table after receiving a signal from PMS.

iii) These valves open within the following times after receipt of an actuation signal:

V001A/B	≤ 40 sec
V002A/B, V003A/B	≤100 sec
V011A/B	≤ 30 sec
V012A/B, V013A/B	≤ 60 sec

Upon loss of motive power, each remotely operated valve identified in Table 2.1.2-1 assumes the indicated loss of motive power position.

ITAAC Completion Description

Multiple ITAAC are performed to verify that controls exist in the Main Control Room (MCR) to cause the remotely operated valves identified in Table 2.1.2-1 to perform active functions and that the valves identified in Table 2.1.2-1 as having Protection and Safety Monitoring System (PMS) control perform an active safety function after receiving a signal from the PMS. The subject ITAAC requires stroke testing on these remotely operated valves using controls in the MCR, testing on these remotely operated valves using real or simulated signals into the PMS, and response time testing on RCS-V001A/B, V002A/B, V003A/B, V011A/B, V012A/B, and V013A/B. Additionally, inspections and tests are performed to demonstrate that safety-related displays identified in Table 2.1.2-1 can be retrieved in the MCR and that after the loss of motive power, the remotely operated valves identified in Table 2.1.2-1 assume the indicated loss of motive power position.

Safety-related displays identified in Table 2.1.2-1 can be retrieved in the MCR.

Inspections performed in accordance with the Unit 3 and Unit 4 component test package work orders SNC921644 and SNCYYYYYY (References 1 and 2), visually confirm that when each of the displays of the plant parameter identified in Attachment A is summoned using the MCR PMS Visual Display Units (VDUs), the expected display appears on the PMS VDU.

The completed inspection results confirm that safety-related displays identified in Table 2.1.2-1 can be retrieved in Unit 3 and Unit 4 MCR.

ii) Controls in the MCR operate to cause the remotely operated valves (other than squib valves) to perform active functions.

ITAAC 2.1.02.11a.ii item 11a.ii is completed as a combination of:

- Factory Acceptance Test – functional testing of PMS soft controls to the Component Interface Module (CIM) output
- Site software installation and regression test – Hardware and software integration verification and testing of post system delivery changes
- Component testing – testing from the CIM to the remotely operated valves

The Factory Acceptance Testing (FAT) follows the guidance of NEI 08-01 Section 9.4 for the as-built tests to be performed at other than the final installed location. The FAT was performed in accordance with PMS Software Program Manual WCAP-16096 (Reference 3), PMS Test Plan APP-PMS-T5-001 (Reference 4) and applicable Codes and Standards described in Vogtle 3 and 4 UFSAR Section 7.

Testing performed in accordance with FAT procedures SV3/SV4/APP-PMS-T1P-009 (References 5 through 7) verifies the logic and functionality from the PMS soft controls through to the Component Interface Module (CIM) outputs for the remotely operated valves identified in Attachment B. The results of the testing are documented in SV3/SV4/APP-PMS-T2R-009 (References 8 through 10). Attachment B provides a listing of test cases used to test the logic and functionality.

Software installation and testing are performed on site to verify that the cabinets are intact and functional in accordance with Units 3 and 4 Field Change Notification (FCN) xxxx (References 11 and 12). References 11 and 12 include steps that confirm and document successful software load and further confirm the physical properties of the as-built PMS. A regression analysis (i.e., change evaluation) is performed post delivery and installation for hardware and software changes to determine if additional testing is needed for the as-built system.

Testing from the CIM to the remotely operated valves identified in Attachment B is performed in accordance with Unit 3 and Unit 4 component test packages SNCXXXXXX and SNCYYYYYY (References 13 and 14). These component test packages utilize B-GEN-ITPCI-039 (Reference 15) to direct the performance of test procedures 3/4-RCS-OTS-10-001 (References 16 and 17). Each valve is stroked to its active function from the PMS Maintenance and Test Panel (MTP) which actuates the CIM and proper valve position indication is verified locally and in the MCR.

The completed test results (References 8 through 14) confirm that controls in Unit 3 and Unit 4 MCR operate to cause the remotely operated valves identified in Table 2.1.2-1 to perform active functions.

ii) The other remotely operated valves identified in Table 2.1.2-1 as having PMS control perform the active function identified in the table after receiving a signal from PMS.

Testing is performed in accordance with Unit 3 and Unit 4 component test packages SNCXXXXXX and SNCYYYYYY (References 13 and 14). These component test packages utilize B-GEN-ITPCI-039 (Reference 15) to direct the performance of test procedures 3/4-RCS-OTS-10-001 (References 16 and 17) to confirm that the remotely operated valves other than squib valves perform the active function identified in Attachment C after a signal is input to the PMS.

References 16 and 17 establish initial conditions with each valve verified locally and in the MCR to be in the required position. An actuation signal is generated by PMS using the PMS Maintenance and Test Panel (MTP) to generate a signal to cause the valves in Attachment C to transfer to the active function position and each valve is verified locally and in the MCR.

The completed test results (References 13 and 14) confirm the remotely operated valves other than squib valves perform the active function identified in the table after a signal is input to the PMS for Unit 3 and Unit 4.

iii) These valves open within the following times after receipt of an actuation signal:

V001A/B	≤ 40 sec
V002A/B, V003A/B	≤100 sec
V011A/B	≤ 30 sec
V012A/B, V013A/B	≤ 60 sec

Testing is performed in accordance with Unit 3 and Unit 4 component test packages SNCXXXXXX and SNCYYYYYY (References 13 and 14). These component test packages utilize B-GEN-ITPCI-039 (Reference 15) to direct the performance of test procedures 3/4-RCS-OTS-10-001 (References 16 and 17) to confirm that remotely operated RCS valves RCS-V001A/B open within 40 seconds, V002A/B and V003A/B open within 100 seconds, V011A/B

opens within 30 seconds, and V012A/B and V013A/B open within 60 seconds after receipt of an actuation signal.

References 16 and 17 establish initial conditions with each valve verified locally and in the MCR to be in the closed position and a digital trend is established to time the valve actuation. An actuation signal is generated by PMS using the PMS Maintenance and Test Panel (MTP) to generate a signal to cause the valves in Attachment D to transfer open and each valve is verified locally and in the MCR.

The completed test results (References 13 and 14) confirm that remotely operated RCS valves RCS-V001A/B open within 40 seconds, V002A/B and V003A/B open within 100 seconds, V011A/B opens within 30 seconds, and V012A/B and V013A/B open within 60 seconds after receipt of an actuation signal for Unit 3 and Unit 4 and the test results are documented in Attachment D.

After loss of motive power, each remotely operated valve identified in Table 2.1.2-1 assumes the indicated loss of motive power position.

Testing is performed in accordance with Unit 3 and Unit 4 component test work packages, SNC921652 and SNCYYYYYY (References 18 and 19) to verify that each remotely operated valve identified in Attachment E assumes the indicated loss of motive power position upon a loss of motive power.

Testing is performed on the Motor-Operated Valves (MOVs) listed in Attachment E by opening the power supply to the MOVs when they are closed and verifying they remain closed in the MCR. Power is restored to the MOVs and they are opened. The power supply to the MOVs is opened and they are verified to remain open in the MCR.

Testing on the air operated valves is performed by placing the valves in a position opposite their loss of motive power position and opening the power supply to their air supply solenoid. This causes the solenoid to de-energize which closes the air supply to the valve and opens a vent port to vent off the air in the actuator. The valves are verified in the MCR to transfer to their loss of motive power position.

The motive power for the squib valves is a single-use explosive device powered by Direct Current (DC) Power. By design, this configuration results in the squib valves maintaining their as-is position upon a loss of motive power, as power is required to ignite the explosive device which repositions the valve. As a result, no loss of motive power testing is required for the squib valves. Functional testing of the squib valve actuation circuits is performed by other ITAAC.

The completed test results (References 18 and 19) confirm that after loss of motive power, each remotely operated valve identified in Table 2.1.2-1 assumes the indicated loss of motive power position for Unit 3 and Unit 4.

References 1 through 19 are available for NRC inspection as part of Unit 3 and Unit 4 ITAAC Completion Packages (Reference 20 and 21).

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. SNC921644, "Reactor Coolant System Indication Verifications ITAAC: SV3-2.1.02.11a.ii Item 10"
2. SNCYYYYYY, "Reactor Coolant System Indication Verifications ITAAC: SV4-2.1.02.11a.ii Item 10"
3. WCAP-16096, "Software Program Manual for Common Q Systems" Revision 4A
4. APP-PMS-T5-001, "AP1000 Protection and Safety Monitoring System Test Plan"
5. APP-PMS-T1P-009 "AP1000 Protection and Safety Monitoring System Integrated Logic Processor Component Logic Channel Integration Test Procedure"
6. SV3-PMS-T1P-009 "AP1000 Protection and Safety Monitoring System Integrated Logic Processor Component Logic Channel Integration Test Procedure"
7. SV4-PMS-T1P-009 "AP1000 Protection and Safety Monitoring System Integrated Logic Processor Component Logic Channel Integration Test Procedure"
8. APP-PMS-T2R-009 "AP1000 Protection and Safety Monitoring System Integrated Logic Processor Component Logic Channel Integration Test Report"
9. SV3-PMS-T2R-009 "AP1000 Protection and Safety Monitoring System Integrated Logic Processor Component Logic Channel Integration Test Report"
10. SV4-PMS-T2R-009 "AP1000 Protection and Safety Monitoring System Integrated Logic Processor Component Logic Channel Integration Test Report"
11. Unit 3 Field Change Notice "PMS Software"
12. Unit 4 Field Change Notice "PMS Software"
13. SNCXXXXXX
14. SNCYYYYYY
15. B-GEN-ITPCI-039, "PMS CIM Component Test Procedure"
16. 3-RCS-OTS-10-001, "Reactor Coolant System Valve Stroke Test"
17. 4-RCS-OTS-10-001, "Reactor Coolant System Valve Stroke Test"
18. SNC921652, "Loss of Motive Power Test for RCS – ITAAC: SV3-2.1.02.11a.ii, Item 12b"
19. SNCYYYYYY, Loss of Motive Power Test for RCS – ITAAC: SV3-2.1.02.11a.ii, Item 12b"
20. 2.1.02.11a.ii-U3-CP-Rev0, ITAAC Completion Package
21. 2.1.02.11a.ii-U4-CP-Rev0, ITAAC Completion Package
22. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

Attachment A

*Excerpt from COL Appendix C Table 2.1.2-1

Equipment Name*	Tag No.*	Safety-Related Display*
First-stage ADS Motor-operated Valve (MOV)	RCS-PL-V001A	Yes (Valve Position)
First-stage ADS MOV	RCS-PL-V001B	Yes (Valve Position)
Second-stage ADS MOV	RCS-PL-V002A	Yes (Valve Position)
Second-stage ADS MOV	RCS-PL-V002B	Yes (Valve Position)
Third-stage ADS MOV	RCS-PL-V003A	Yes (Valve Position)
Third-stage ADS MOV	RCS-PL-V003B	Yes (Valve Position)
Fourth-stage ADS Squib Valve	RCS-PL-V004A	Yes (Valve Position)
Fourth-stage ADS Squib Valve	RCS-PL-V004B	Yes (Valve Position)
Fourth-stage ADS Squib Valve	RCS-PL-V004C	Yes (Valve Position)
Fourth-stage ADS Squib Valve	RCS-PL-V004D	Yes (Valve Position)
First-stage ADS Isolation MOV	RCS-PL-V011A	Yes (Valve Position)
First-stage ADS Isolation MOV	RCS-PL-V011B	Yes (Valve Position)
Second-stage ADS Isolation MOV	RCS-PL-V012A	Yes (Valve Position)
Second-stage ADS Isolation MOV	RCS-PL-V012B	Yes (Valve Position)
Third-stage ADS Isolation MOV	RCS-PL-V013A	Yes (Valve Position)
Third-stage ADS Isolation MOV	RCS-PL-V013B	Yes (Valve Position)
Fourth-stage ADS MOV	RCS-PL-V014A	Yes (Valve Position)
Fourth-stage ADS MOV	RCS-PL-V014B	Yes (Valve Position)
Fourth-stage ADS MOV	RCS-PL-V014C	Yes (Valve Position)
Fourth-stage ADS MOV	RCS-PL-V014D	Yes (Valve Position)
Reactor Vessel Head Vent Valve	RCS-PL-V150A	Yes (Valve Position)
Reactor Vessel Head Vent Valve	RCS-PL-V150B	Yes (Valve Position)
Reactor Vessel Head Vent Valve	RCS-PL-V150C	Yes (Valve Position)
Reactor Vessel Head Vent Valve	RCS-PL-V150D	Yes (Valve Position)
RCS Hot Leg 1 Flow Sensor	RCS-101A	Yes
RCS Hot Leg 1 Flow Sensor	RCS-101B	Yes
RCS Hot Leg 1 Flow Sensor	RCS-101C	Yes
RCS Hot Leg 1 Flow Sensor	RCS-101D	Yes
RCS Hot Leg 2 Flow Sensor	RCS-102A	Yes
RCS Hot Leg 2 Flow Sensor	RCS-102B	Yes
RCS Hot Leg 2 Flow Sensor	RCS-102C	Yes
RCS Hot Leg 2 Flow Sensor	RCS-102D	Yes
RCS Cold Leg 1A Dual Range Temperature Sensor	RCS-125A	Yes (Wide Range)
RCS Cold Leg 2A Dual Range Temperature Sensor	RCS-125B	Yes (Wide Range)
RCS Cold Leg 1B Dual Range Temperature Sensor	RCS-125C	Yes (Wide Range
RCS Cold Leg 2B Dual Range Temperature Sensor	RCS-125D	Yes (Wide Range)
RCS Hot Leg 1 Wide Range Temperature Sensor	RCS-135A	Yes
RCS Hot Leg 2 Wide Range Temperature Sensor	RCS-135B	Yes
RCS Wide Range Pressure Sensor	RCS-140A	Yes
RCS Wide Range Pressure Sensor	RCS-140B	Yes
RCS Wide Range Pressure Sensor	RCS-140C	Yes
RCS Wide Range Pressure Sensor	RCS-140D	Yes

Attachment A (continued)

*Excerpt from COL Appendix C Table 2.1.2-1

Equipment Name*	Tag No.*	Safety-Related Display*
RCS Hot Leg 1 Level Sensor	RCS-160A	Yes
RCS Hot Leg 2 Level Sensor	RCS-160B	Yes
Passive Residual Heat Removal (PRHR) Return Line Temperature Sensor	RCS-161	Yes
Pressurizer Pressure Sensor	RCS-191A	Yes
Pressurizer Pressure Sensor	RCS-191B	Yes
Pressurizer Pressure Sensor	RCS-191C	Yes
Pressurizer Pressure Sensor	RCS-191D	Yes
Pressurizer Level Reference Leg Temperature Sensor	RCS-193A	Yes
Pressurizer Level Reference Leg Temperature Sensor	RCS-193B	Yes
Pressurizer Level Reference Leg Temperature Sensor	RCS-193C	Yes
Pressurizer Level Reference Leg Temperature Sensor	RCS-193D	Yes
Pressurizer Level Sensor	RCS-195A	Yes
Pressurizer Level Sensor	RCS-195B	Yes
Pressurizer Level Sensor	RCS-195C	Yes
Pressurizer Level Sensor	RCS-195D	Yes
RCP 1A Bearing Water Temperature Sensor	RCS-211A	Yes
RCP 1A Bearing Water Temperature Sensor	RCS-211B	Yes
RCP 1A Bearing Water Temperature Sensor	RCS-211C	Yes
RCP 1A Bearing Water Temperature Sensor	RCS-211D	Yes
RCP 1B Bearing Water Temperature Sensor	RCS-212A	Yes
RCP 1B Bearing Water Temperature Sensor	RCS-212B	Yes
RCP 1B Bearing Water Temperature Sensor	RCS-212C	Yes
RCP 1B Bearing Water Temperature Sensor	RCS-212D	Yes
RCP 2A Bearing Water Temperature Sensor	RCS-213A	Yes
RCP 2A Bearing Water Temperature Sensor	RCS-213B	Yes
RCP 2A Bearing Water Temperature Sensor	RCS-213C	Yes
RCP 2A Bearing Water Temperature Sensor	RCS-213D	Yes
RCP 2B Bearing Water Temperature Sensor	RCS-214A	Yes
RCP 2B Bearing Water Temperature Sensor	RCS-214B	Yes
RCP 2B Bearing Water Temperature Sensor	RCS-214C	Yes
RCP 2B Bearing Water Temperature Sensor	RCS-214D	Yes
RCP 1A Pump Speed Sensor	RCS-281	Yes
RCP 1B Pump Speed Sensor	RCS-282	Yes
RCP 2A Pump Speed Sensor	RCS-283	Yes
RCP 2B Pump Speed Sensor	RCS-284	Yes

Attachment B

*Excerpt from COL Appendix C Table 2.1.2-1

Equipment Name*	Tag No.*	Active Function*	Test Case
First-stage ADS Motor-operated Valve (MOV)	RCS-PL-V001A	Transfer Open	TPS03A-01.41
First-stage ADS MOV	RCS-PL-V001B	Transfer Open	TPS03B-01.48
Second-stage ADS MOV	RCS-PL-V002A	Transfer Open	TPS03C-01.27
Second-stage ADS MOV	RCS-PL-V002B	Transfer Open	TPS03D-01.48
Third-stage ADS MOV	RCS-PL-V003A	Transfer Open	TPS03A-01.42
Third-stage ADS MOV	RCS-PL-V003B	Transfer Open	TPS03B-01.49
First-stage ADS Isolation MOV	RCS-PL-V011A	Transfer Open	TPS03A-01.31
First-stage ADS Isolation MOV	RCS-PL-V011B	Transfer Open	TPS03B-01.18
Second-stage ADS Isolation MOV	RCS-PL-V012A	Transfer Open	TPS03C-01.20
Second-stage ADS Isolation MOV	RCS-PL-V012B	Transfer Open	TPS03D-01.39
Third-stage ADS Isolation MOV	RCS-PL-V013A	Transfer Open	TPS03A-01.32
Third-stage ADS Isolation MOV	RCS-PL-V013B	Transfer Open	TPS03B-01.19
Reactor Vessel Head Vent Valve	RCS-PL-V150A	Transfer Closed/ Transfer Open	TPS03A-01.18
Reactor Vessel Head Vent Valve	RCS-PL-V150B	Transfer Closed/ Transfer Open	TPS03B-01.28
Reactor Vessel Head Vent Valve	RCS-PL-V150C	Transfer Closed/ Transfer Open	TPS03C-01.7
Reactor Vessel Head Vent Valve	RCS-PL-V150D	Transfer Closed/ Transfer Open	TPS03D-01.18

Attachment C

*Excerpt from COL Appendix C Table 2.1.2-1

Equipment Name*	Tag No.*	Control PMS/ DAS*	Active Function*
First-stage ADS Motor-operated Valve (MOV)	RCS-PL-V001A	Yes/Yes	Transfer Open
First-stage ADS MOV	RCS-PL-V001B	Yes/Yes	Transfer Open
Second-stage ADS MOV	RCS-PL-V002A	Yes/Yes	Transfer Open
Second-stage ADS MOV	RCS-PL-V002B	Yes/Yes	Transfer Open
Third-stage ADS MOV	RCS-PL-V003A	Yes/Yes	Transfer Open
Third-stage ADS MOV	RCS-PL-V003B	Yes/Yes	Transfer Open
First-stage ADS Isolation MOV	RCS-PL-V011A	Yes/Yes	Transfer Open
First-stage ADS Isolation MOV	RCS-PL-V011B	Yes/Yes	Transfer Open
Second-stage ADS Isolation MOV	RCS-PL-V012A	Yes/Yes	Transfer Open
Second-stage ADS Isolation MOV	RCS-PL-V012B	Yes/Yes	Transfer Open
Third-stage ADS Isolation MOV	RCS-PL-V013A	Yes/Yes	Transfer Open
Third-stage ADS Isolation MOV	RCS-PL-V013B	Yes/Yes	Transfer Open
Reactor Vessel Head Vent Valve	RCS-PL-V150A	Yes/No	Transfer Closed/ Transfer Open
Reactor Vessel Head Vent Valve	RCS-PL-V150B	Yes/No	Transfer Closed/ Transfer Open
Reactor Vessel Head Vent Valve	RCS-PL-V150C	Yes/No	Transfer Closed/ Transfer Open
Reactor Vessel Head Vent Valve	RCS-PL-V150D	Yes/No	Transfer Closed/ Transfer Open

Attachment D

*Excerpt from COL Appendix C Table 2.1.2-1

Equipment Name*	Tag No.*	Opening Time
First-stage ADS Motor-operated Valve (MOV)	RCS-PL-V001A	XX sec
First-stage ADS MOV	RCS-PL-V001B	XX sec
Second-stage ADS MOV	RCS-PL-V002A	XX sec
Second-stage ADS MOV	RCS-PL-V002B	XX sec
Third-stage ADS MOV	RCS-PL-V003A	XX sec
Third-stage ADS MOV	RCS-PL-V003B	XX sec
First-stage ADS Isolation MOV	RCS-PL-V011A	XX sec
First-stage ADS Isolation MOV	RCS-PL-V011B	XX sec
Second-stage ADS Isolation MOV	RCS-PL-V012A	XX sec
Second-stage ADS Isolation MOV	RCS-PL-V012B	XX sec
Third-stage ADS Isolation MOV	RCS-PL-V013A	XX sec
Third-stage ADS Isolation MOV	RCS-PL-V013B	XX sec

Attachment E

*Excerpt from COL Appendix C Table 2.1.2-1

Equipment Name*	Tag No.*	Loss of Motive Power Position*
First-stage ADS Motor-operated Valve (MOV)	RCS-PL-V001A	As Is
First-stage ADS MOV	RCS-PL-V001B	As Is
Second-stage ADS MOV	RCS-PL-V002A	As Is
Second-stage ADS MOV	RCS-PL-V002B	As Is
Third-stage ADS MOV	RCS-PL-V003A	As Is
Third-stage ADS MOV	RCS-PL-V003B	As Is
Fourth-stage ADS Squib Valve	RCS-PL-V004A	As Is
Fourth-stage ADS Squib Valve	RCS-PL-V004B	As Is
Fourth-stage ADS Squib Valve	RCS-PL-V004C	As Is
Fourth-stage ADS Squib Valve	RCS-PL-V004D	As Is
First-stage ADS Isolation MOV	RCS-PL-V011A	As Is
First-stage ADS Isolation MOV	RCS-PL-V011B	As Is
Second-stage ADS Isolation MOV	RCS-PL-V012A	As Is
Second-stage ADS Isolation MOV	RCS-PL-V012B	As Is
Third-stage ADS Isolation MOV	RCS-PL-V013A	As Is
Third-stage ADS Isolation MOV	RCS-PL-V013B	As Is
Fourth-stage ADS MOV	RCS-PL-V014A	As Is
Fourth-stage ADS MOV	RCS-PL-V014B	As Is
Fourth-stage ADS MOV	RCS-PL-V014C	As Is
Fourth-stage ADS MOV	RCS-PL-V014D	As Is
Reactor Vessel Head Vent Valve	RCS-PL-V150A	Closed
Reactor Vessel Head Vent Valve	RCS-PL-V150B	Closed
Reactor Vessel Head Vent Valve	RCS-PL-V150C	Closed
Reactor Vessel Head Vent Valve	RCS-PL-V150D	Closed