

Vogle PEmails

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**Southern Nuclear Operating Company
ND-19-
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4
Completion Plan for Uncompleted ITAAC 2.2.03.10 [Index Number 206]**

ITAAC Statement

Design Commitment

10. Safety-related displays of the parameters identified in Table 2.2.3-1 can be retrieved in the MCR.

11.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.2.3-1 to perform their active function(s).

11.b) The valves identified in Table 2.2.3-1 as having PMS control perform their active function after receiving a signal from the PMS.

12.b) After loss of motive power, the remotely operated valves identified in Table 2.2.3-1 assume the indicated loss of motive power position.

13. Displays of the parameters identified in Table 2.2.3-3 can be retrieved in the MCR.

Inspections/Tests/Analyses

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

ii) Stroke testing will be performed on remotely operated valves other than squib valves identified in Table 2.2.3-1 using the controls in the MCR.

ii) Testing will be performed on the remotely operated valves other than squib valves identified in Table 2.2.3-1 using real or simulated signals into the PMS.

iii) Testing will be performed to demonstrate that remotely operated PXS isolation valves PXS-V014A/B, V015A/B, V108A/B open within the required response times.

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

Inspection will be performed for retrievability of the displays identified in Table 2.2.3-3 in the MCR.

Acceptance Criteria

Safety-related displays identified in Table 2.2.3-1 can be retrieved in the MCR.

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

ii) Remotely operated valves other than squib valves perform the active function identified in the table after a signal is input to the PMS.

iii) These valves open within 20 seconds after receipt of an actuation signal.

After loss of motive power, each remotely operated valve identified in Table 2.2.3-1 assumes the indicated loss of motive power position.

Displays identified in Table 2.2.3-3 can be retrieved in the MCR.

ITAAC Completion Description

Multiple ITAAC are performed to verify by inspections and tests that:

- Safety-related displays of the parameters identified in the Combined License (COL) Table 2.2.3-1 (Attachment A) can be retrieved in the Main Control Room (MCR).
- Controls exist in the MCR to cause the remotely operated valves identified in COL Table 2.2.3-1 (Attachment B) to perform their active function(s).
- The valves identified in Table 2.2.3-1 (Attachment C) as having Protection and Safety Monitoring System (PMS) control perform their active function after receiving a signal from the PMS.
- Remotely operated PXS isolation valves PXS-V014A/B, V015A/B, V108A/B open within the required response times.
- After loss of motive power, the remotely operated valves identified in COL Table 2.2.3-1 (Attachment E) assume the indicated loss of motive power position.
- Displays of the parameters identified in COL Table 2.2.3-3 (Attachment F) can be retrieved in the MCR.

Safety-related displays identified in Table 2.2.3-1 can be retrieved in the MCR.

Inspection performed in accordance with Unit 3 and Unit 4 component test work packages, SNC921612 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 (References 1 and 2) confirm that safety-related displays identified in Table 2.2.3-1 can be retrieved in Unit 3 and Unit 4 MCR.

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

Stroke testing is performed in accordance with Unit 3 and Unit 4 component test work packages, SNC921614 and SNCYYYYYY (References 3 and 4) using controls in the MCR to confirm that the remotely operated valves identified in COL Table 2.2.3-1 (Attachment B) perform their active function.

The remotely operated valves identified in Attachment B are stroke tested using an operator work station in the MCR. The valves are stroked to their active function position using the Plant Control System (PLS) and verified locally to have travelled to their active function position.

The completed test results (References 3 and 4) confirm that controls in the Unit 3 and Unit 4 MCRs operate to cause remotely operated valves other than squib valves to perform their active functions.

ii) Remotely operated valves other than squib valves perform the active function identified in the table after a signal is input to the PMS.

Testing is performed in accordance with Unit 3 and Unit 4 component test packages SNCXXXXXX and SNCYYYYYY (References 5 and 6). These component test packages utilize B-GEN-ITPCI-039 (Reference 7) to direct the performance of test procedures 3/4-GEN-OTS-10-001 (References 8 and 9), 3/4-GEN-OTS-10-002 (References 10 and 11), 3/4-GEN-OTS-10-003 (References 12 and 13), 3/4-GEN-OTS-10-004 (References 14 and 15), and 3/4-PXS-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 8 through 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 5 and 6) 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.

iii) These valves open within 20 seconds after receipt of an actuation signal.

Testing is performed in accordance with Unit 3 and Unit 4 component test packages SNCXXXXXX and SNCYYYYYY (References 5 and 6). These component test packages utilize B-GEN-ITPCI-039 (Reference 7) to direct the performance of test procedures 3/4-GEN-OTS-10-001 (References 8 and 9), 3/4-GEN-OTS-10-002 (References 10 and 11), 3/4-GEN-OTS-10-003 (References 12 and 13), 3/4-GEN-OTS-10-004 (References 14 and 15), and 3/4-PXS-OTS-10-001 (References 16 and 17) to confirm that remotely operated PXS isolation valves PXS-V014A/B, V015A/B, V108A/B open within 20 seconds after receipt of an actuation signal.

References 8 through 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 actuations. 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 5 and 6) confirm that remotely operated PXS isolation valves PXS-V014A/B, V015A/B, V108A/B open within 20 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 2.2.3-1 assumes the indicated loss of motive power position.

Testing is performed in accordance with Unit 3 and Unit 4 component test work packages, SNCXXXXXX and SNCYYYYYY (References 18 and 19) to verify that each remotely operated valve, other than squib valves, 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. 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.

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 deenergize 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 locally and 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 testing is required for the squib valves.

The completed test results (References 18 and 19) confirm that after loss of motive power, each remotely operated valve identified in Table 2.2.3-1 assumes the indicated loss of motive power position for Unit 3 and Unit 4.

Displays identified in Table 2.2.3-3 can be retrieved in the MCR.

An inspection is performed in accordance with Unit 3 and Unit 4 component test work packages, SNC921612 and SNCYYYYYY (References 1 and 2) to confirm displays identified in Attachment F can be retrieved in the MCR.

Testing is performed at an operator work station in the Unit 3 and Unit 4 MCR. Each display identified in Attachment F is located and verified to be retrievable and displayed on the operator work station.

The completed test results (References 1 and 2) confirm that the displays identified in Table 2.2.3-3 can be retrieved in Unit 3 and Unit 4 MCR.

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. SNC921612, "PXS Indication Verifications – ITAAC: SV3-2.2.03.10 Items 10 and 13"
2. SNCYYYYYY, "PXS Indication Verifications – ITAAC: SV3-2.2.03.10 Items 10 and 13"
3. SNC921614, "PXS Remotely Operated Valve Stroke Test – ITAAC: SV3-2.2.03.10, Item 11a.ii"

4. SNCYYYYYY, "PXS Remotely Operated Valve Stroke Test – ITAAC: SV3-2.2.03.10, Item 11a.ii"
5. SNCXXXXXX
6. SNCYYYYYY
7. B-GEN-ITPCI-039, "PMS CIM Component Test Procedure"
8. 3-GEN-OTS-10-001, "DIVISION A QUARTERLY VALVE STROKE TEST"
9. 4-GEN-OTS-10-001, "DIVISION A QUARTERLY VALVE STROKE TEST"
10. 3-GEN-OTS-10-002, "DIVISION B QUARTERLY VALVE STROKE TEST"
11. 4-GEN-OTS-10-002, "DIVISION B QUARTERLY VALVE STROKE TEST"
12. 3-GEN-OTS-10-003, "DIVISION C QUARTERLY VALVE STROKE TEST"
13. 4-GEN-OTS-10-003, "DIVISION C QUARTERLY VALVE STROKE TEST"
14. 3-GEN-OTS-10-004, "DIVISION D QUARTERLY VALVE STROKE TEST"
15. 4-GEN-OTS-10-004, "DIVISION D QUARTERLY VALVE STROKE TEST"
16. 3-PXS-OTS-10-001, "Passive Core Cooling System Valve Stroke Test"
17. 4-PXS-OTS-10-001, "Passive Core Cooling System Valve Stroke Test"
18. SNCXXXXXX, "PXS Remotely Operated Valve Loss of Motive Power Test – ITAAC: SV3-2.2.03.10, Item 12b"
19. SNCYYYYYY, "PXS Remotely Operated Valve Loss of Motive Power Test – ITAAC: SV3-2.2.03.10, Item 12b"
20. 2.2.03.10-U3-CP-Rev0, ITAAC Completion Package
21. 2.2.03.10-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 2.2.3-1

Table 2.2.3-1		
*Equipment Name	*Tag No.	*Safety-Related Display
CMT A Inlet Isolation Motor-operated Valve	PXS-PL-V002A	Yes (Position)
CMT B Inlet Isolation Motor-operated Valve	PXS-PL-V002B	Yes (Position)
CMT A Discharge Isolation Valve	PXS-PL-V014A	Yes (Position)
CMT B Discharge Isolation Valve	PXS-PL-V014B	Yes (Position)
CMT A Discharge Isolation Valve	PXS-PL-V015A	Yes (Position)
CMT B Discharge Isolation Valve	PXS-PL-V015B	Yes (Position)
Nitrogen Supply Containment Isolation Valve	PXS-PL-V042	Yes (Position)
PRHR HX Inlet Isolation Motor-operated Valve	PXS-PL-V101	Yes (Position)
PRHR HX Control Valve	PXS-PL-V108A	Yes (Position)
PRHR HX Control Valve	PXS-PL-V108B	Yes (Position)
Containment Recirculation A Isolation Motor-operated Valve	PXS-PL-V117A	Yes (Position)
Containment Recirculation B Isolation Motor-operated Valve	PXS-PL-V117B	Yes (Position)
Containment Recirculation A Squib Valve	PXS-PL-V118A	Yes (Position)
Containment Recirculation B Squib Valve	PXS-PL-V118B	Yes (Position)
Containment Recirculation A Squib Valve	PXS-PL-V120A	Yes (Position)
Containment Recirculation B Squib Valve	PXS-PL-V120B	Yes (Position)
IRWST Injection A Squib Valve	PXS-PL-V123A	Yes (Position)
IRWST Injection A Squib Valve	PXS-PL-V123B	Yes (Position)
IRWST Injection A Squib Valve	PXS-PL-V125A	Yes (Position)
IRWST Injection A Squib Valve	PXS-PL-V125B	Yes (Position)
IRWST Gutter Isolation Valve	PXS-PL-V130A	Yes (Position)
IRWST Gutter Isolation Valve	PXS-PL-V130B	Yes (Position)
CMT A Level Sensor	PXS-011A	Yes
CMT A Level Sensor	PXS-011B	Yes
CMT A Level Sensor	PXS-011C	Yes
CMT A Level Sensor	PXS-011D	Yes
CMT B Level Sensor	PXS-012A	Yes
CMT B Level Sensor	PXS-012B	Yes
CMT B Level Sensor	PXS-012C	Yes
CMT B Level Sensor	PXS-012D	Yes
CMT A Level Sensor	PXS-013A	Yes

Attachment A (con't)

Table 2.2.3-1		
*Equipment Name	*Tag No.	*Safety-Related Display
CMT A Level Sensor	PXS-013B	Yes
CMT A Level Sensor	PXS-013C	Yes
CMT A Level Sensor	PXS-013D	Yes
CMT B Level Sensor	PXS-014A	Yes
CMT B Level Sensor	PXS-014B	Yes
CMT B Level Sensor	PXS-014C	Yes
CMT B Level Sensor	PXS-014D	Yes
IRWST Wide Range Level Sensor	PXS-046	Yes
IRWST Wide Range Level Sensor	PXS-047	Yes
IRWST Wide Range Level Sensor	PXS-048	Yes
PRHR HX Flow Sensor	PXS-049A	Yes
PRHR HX Flow Sensor	PXS-049B	Yes
Containment Flood-up Level Sensor	PXS-050	Yes
Containment Flood-up Level Sensor	PXS-051	Yes
Containment Flood-up Level Sensor	PXS-052	Yes
IRWST Lower Narrow Range Level Sensor	PXS-066	Yes
IRWST Lower Narrow Range Level Sensor	PXS-067	Yes
IRWST Lower Narrow Range Level Sensor	PXS-068	Yes
IRWST Lower Narrow Range Level Sensor	PXS-069	Yes

Attachment B

*Excerpt from COL Appendix C Table 2.2.3-1

Table 2.2.3-1			
*Equipment Name	*Tag No.	*Remotely Operated Valve	*Active Function
CMT A Discharge Isolation Valve	PXS-PL-V014A	YES	Transfer Open
CMT B Discharge Isolation Valve	PXS-PL-V014B	YES	Transfer Open
CMT A Discharge Isolation Valve	PXS-PL-V015A	YES	Transfer Open
CMT B Discharge Isolation Valve	PXS-PL-V015B	YES	Transfer Open
Nitrogen Supply Containment Isolation Valve	PXS-PL-V042	YES	Transfer Closed
PRHR HX Control Valve	PXS-PL-V108A	YES	Transfer Open
PRHR HX Control Valve	PXS-PL-V108B	YES	Transfer Open
IRWST Gutter Isolation Valve	PXS-PL-V130A	YES	Transfer Closed
IRWST Gutter Isolation Valve	PXS-PL-V130B	YES	Transfer Closed

Attachment C

*Excerpt from COL Appendix C Table 2.2.3-1

Table 2.2.3-1			
*Equipment Name	*Tag No.	*Control PMS	*Active Function
CMT A Discharge Isolation Valve	PXS-PL-V014A	YES	Transfer Open
CMT B Discharge Isolation Valve	PXS-PL-V014B	YES	Transfer Open
CMT A Discharge Isolation Valve	PXS-PL-V015A	YES	Transfer Open
CMT B Discharge Isolation Valve	PXS-PL-V015B	YES	Transfer Open
Nitrogen Supply Containment Isolation Valve	PXS-PL-V042	YES	Transfer Closed
PRHR HX Control Valve	PXS-PL-V108A	YES	Transfer Open
PRHR HX Control Valve	PXS-PL-V108B	YES	Transfer Open
IRWST Gutter Isolation Valve	PXS-PL-V130A	YES	Transfer Closed
IRWST Gutter Isolation Valve	PXS-PL-V130B	YES	Transfer Closed

Attachment D

*Excerpt from COL Appendix C Table 2.2.3-1

Table 2.2.3-1					
Unit	*Equipment Name	*Tag No.	*Remotely Operated Valve	*Control PMS	Open Time
3	CMT A Discharge Isolation Valve	PXS-PL-V014A	Yes	Yes	XX sec
3	CMT B Discharge Isolation Valve	PXS-PL-V014B	Yes	Yes	XX sec
3	CMT A Discharge Isolation Valve	PXS-PL-V015A	Yes	Yes	XX sec
3	CMT B Discharge Isolation Valve	PXS-PL-V015B	Yes	Yes	XX sec
3	PRHR HX Control Valve	PXS-PL-V108A	Yes	Yes	XX sec
3	PRHR HX Control Valve	PXS-PL-V108B	Yes	Yes	XX sec
4	CMT A Discharge Isolation Valve	PXS-PL-V014A	Yes	Yes	XX sec
4	CMT B Discharge Isolation Valve	PXS-PL-V014B	Yes	Yes	XX sec
4	CMT A Discharge Isolation Valve	PXS-PL-V015A	Yes	Yes	XX sec

Attachment D (con't)

Table 2.2.3-1					
Unit	*Equipment Name	*Tag No.	*Remotely Operated Valve	*Control PMS	Open Time
4	CMT B Discharge Isolation Valve	PXS-PL-V015B	Yes	Yes	XX sec
4	PRHR HX Control Valve	PXS-PL-V108A	Yes	Yes	XX sec
4	PRHR HX Control Valve	PXS-PL-V108B	Yes	Yes	XX sec

Attachment E

*Excerpt from COL Appendix C Table 2.2.3-1

Table 2.2.3-1			
*Equipment Name	*Tag No.	*Remotely Operated Valve	*Loss of Motive Power Position
CMT A Inlet Isolation Motor-operated Valve	PXS-PL-V002A	Yes	As Is
CMT B Inlet Isolation Motor-operated Valve	PXS-PL-V002B	Yes	As Is
CMT A Discharge Isolation Valve	PXS-PL-V014A	Yes	Open
CMT B Discharge Isolation Valve	PXS-PL-V014B	Yes	Open
CMT A Discharge Isolation Valve	PXS-PL-V015A	Yes	Open
CMT B Discharge Isolation Valve	PXS-PL-V015B	Yes	Open
Accumulator A Discharge Isolation Valve	PXS-PL-V027A	Yes	As Is
Accumulator B Discharge Isolation Valve	PXS-PL-V027B	Yes	As Is
Nitrogen Supply Containment Isolation Valve	PXS-PL-V042	Yes	Closed
PRHR HX Inlet Isolation Motor-operated Valve	PXS-PL-V101	Yes	As Is
PRHR HX Control Valve	PXS-PL-V108A	Yes	Open
PRHR HX Control Valve	PXS-PL-V108B	Yes	Open
Containment Recirculation A Isolation Motor-operated Valve	PXS-PL-V117A	Yes	As Is
Containment Recirculation B Isolation Motor-operated Valve	PXS-PL-V117B	Yes	As Is
Containment Recirculation A Squib Valve	PXS-PL-V118A	Yes	As Is

Attachment E (con't)

Table 2.2.3-1			
*Equipment Name	*Tag No.	*Remotely Operated Valve	*Loss of Motive Power Position
Containment Recirculation B Squib Valve	PXS-PL-V118B	Yes	As Is
Containment Recirculation A Squib Valve	PXS-PL-V120A	Yes	As Is
Containment Recirculation B Squib Valve	PXS-PL-V120B	Yes	As Is
IRWST Injection A Squib Valve	PXS-PL-V123A	Yes	As Is
IRWST Injection A Squib Valve	PXS-PL-V123B	Yes	As Is
IRWST Injection A Squib Valve	PXS-PL-V125A	Yes	As Is
IRWST Injection A Squib Valve	PXS-PL-V125B	Yes	As Is
IRWST Gutter Isolation Valve	PXS-PL-V130A	Yes	Closed
IRWST Gutter Isolation Valve	PXS-PL-V130B	Yes	Closed

Attachment F

*Excerpt from COL Appendix C Table 2.2.3-3

Table 2.2.3-3		
*Equipment	*Tag No.	*Display
CMT A Discharge Isolation Valve	PXS-PL-V014A	Yes (Position)
CMT B Discharge Isolation Valve	PXS-PL-V014B	Yes (Position)
CMT A Discharge Isolation Valve	PXS-PL-V015A	Yes (Position)
CMT B Discharge Isolation Valve	PXS-PL-V015B	Yes (Position)
Accumulator A Nitrogen Vent Valve	PXS-PL-V021A	Yes (Position)
Accumulator B Nitrogen Vent Valve	PXS-PL-V021B	Yes (Position)
Accumulator A Discharge Isolation Valve	PXS-PL-V027A	Yes (Position)
Accumulator B Discharge Isolation Valve	PXS-PL-V027B	Yes (Position)
PRHR HX Control Valve	PXS-PL-V108A	Yes (Position)
PRHR HX Control Valve	PXS-PL-V108B	Yes (Position)
Containment Recirculation A Isolation Motor-operated Valve	PXS-PL-V117A	Yes (Position)
Containment Recirculation B Isolation Motor-operated Valve	PXS-PL-V117B	Yes (Position)
Containment Recirculation A Squib Valve	PXS-PL-V118A	Yes (Position)
Containment Recirculation B Squib Valve	PXS-PL-V118B	Yes (Position)

Attachment F (con't)

Table 2.2.3-3		
*Equipment	*Tag No.	*Display
Containment Recirculation A Squib Valve	PXS-PL-V120A	Yes (Position)
Containment Recirculation B Squib Valve	PXS-PL-V120B	Yes (Position)
IRWST Line A Isolation Valve	PXS-PL-V121A	Yes (Position)
IRWST Line B Isolation Valve	PXS-PL-V121B	Yes (Position)
IRWST Injection A Squib Valve	PXS-PL-V123A	Yes (Position)
IRWST Injection A Squib Valve	PXS-PL-V123B	Yes (Position)
IRWST Injection A Squib Valve	PXS-PL-V125A	Yes (Position)
IRWST Injection A Squib Valve	PXS-PL-V125B	Yes (Position)
IRWST Gutter Isolation Valve	PXS-PL-V130A	Yes (Position)
IRWST Gutter Isolation Valve	PXS-PL-V130B	Yes (Position)
Accumulator A Level Sensor	PXS-JE-L021	Yes
Accumulator B Level Sensor	PXS-JE-L022	Yes
Accumulator A Level Sensor	PXS-JE-L023	Yes
Accumulator B Level Sensor	PXS-JE-L024	Yes
PRHR HX Inlet Temperature Sensor	PXS-JE-T064	Yes
IRWST Surface Temperature Sensor	PXS-JE-T041	Yes
IRWST Surface Temperature Sensor	PXS-JE-T042	Yes
IRWST Bottom Temperature Sensor	PXS-JE-T043	Yes
IRWST Bottom Temperature Sensor	PXS-JE-T044	Yes