

MAR 27 2019

Michael J. Yox  
Regulatory Affairs Director  
Vogtle 3 & 47825 River Road  
Waynesboro, GA 30830  
706-848-6459 telDocket Nos.: 52-025  
52-026ND-19-0240  
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  
Notice of Uncompleted ITAAC 225-days Prior to Initial Fuel Load  
Item 2.2.04.12a.iii [Index Number 250]

Ladies and Gentlemen:

Pursuant to 10 CFR 52.99(c)(3), Southern Nuclear Operating Company hereby notifies the NRC that as of March 20, 2019, Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4 Uncompleted Inspections Tests Analyses and Acceptance Criteria (ITAAC) Item 2.2.04.12a.iii [Index Number 250] has not been completed greater than 225-days prior to initial fuel load. The Enclosure describes the plan for completing ITAAC 2.2.04.12a.iii [Index Number 250]. 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.

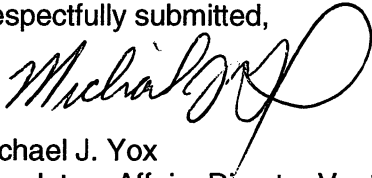
This notification is informed by the guidance described in NEI-08-01, *Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52*, which was endorsed by the NRC in Regulatory Guide 1.215. In accordance with NEI 08-01, this notification includes ITAAC for which required inspections, tests, or analyses have not been performed or have been only partially completed. All ITAAC will be fully completed and all Section 52.99(c)(3) 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.

U.S. Nuclear Regulatory Commission  
ND-19-0240  
Page 2 of 4

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael J. Yox". The signature is fluid and cursive, with a large loop at the end.

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 2.2.04.12a.iii [Index Number 250]

MJY/DLW/sfr

U.S. Nuclear Regulatory Commission

ND-19-0240

Page 3 of 4

To:

**Southern Nuclear Operating Company/ Georgia Power Company**

Mr. D. A. Bost (w/o enclosures)

Mr. D. L. McKinney (w/o enclosures)

Mr. M. D. Meier (w/o enclosures)

Mr. D. H. Jones (w/o enclosures)

Mr. J. B. Klecha

Mr. G. Chick

Mr. M. J. Yox

Mr. A. S. Parton

Ms. K. A. Roberts

Mr. T. G. Petrak

Mr. W. A. Sparkman

Mr. C. T. Defnall

Mr. C. E. Morrow

Mr. J. L. Hughes

Ms. K. M. Stacy

Ms. A. C. Chamberlain

Mr. J. C. Haswell

Document Services RTYPE: VND.LI.L06

File AR.01.02.06

cc:

**Nuclear Regulatory Commission**

Mr. W. Jones (w/o enclosures)

Mr. F. D. Brown

Ms. J. M. Heisserer

Mr. C. P. Patel

Mr. G. J. Khouri

Ms. S. E. Temple

Mr. N. D. Karlovich

Mr. A. Lerch

Mr. C. J. Even

Mr. B. J. Kemker

Ms. N. C. Coover

Mr. C. Welch

Mr. I. Cozens

Mr. J. Gaslevic

Mr. V. Hall

**Oglethorpe Power Corporation**

Mr. R. B. Brinkman

Mr. E. Rasmussen

**Municipal Electric Authority of Georgia**

Mr. J. E. Fuller

Mr. S. M. Jackson

U.S. Nuclear Regulatory Commission

ND-19-0240

Page 4 of 4

**Dalton Utilities**

Mr. T. Bundros

**Westinghouse Electric Company, LLC**

Dr. L. Oriani (w/o enclosures)

Mr. D. C. Durham (w/o enclosures)

Mr. M. M. Corletti

Ms. L. G. Iller

Ms. J. Monahan

Mr. J. L. Coward

**Other**

Mr. J. E. Hesler, *Bechtel Power Corporation*

Ms. L. Matis, *Tetra Tech NUS, Inc.*

Dr. W. R. Jacobs, Jr., Ph.D., *GDS Associates, Inc.*

Mr. S. Roetger, *Georgia Public Service Commission*

Ms. S. W. Kernizan, *Georgia Public Service Commission*

Mr. K. C. Greene, *Troutman Sanders*

Mr. S. Blanton, *Balch Bingham*

**Southern Nuclear Operating Company  
ND-19-0240  
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 3 and Unit 4  
Completion Plan for Uncompleted ITAAC 2.2.04.12a.iii [Index Number 250]**

## **ITAAC Statement**

### **Design Commitment**

9.a) Components within the main steam system, main and startup feedwater system, and the main turbine system identified in Table 2.2.4-3 provide backup isolation of the SGS to limit steam generator blowdown and feedwater flow to the steam generator.

10. Safety-related displays identified in Table 2.2.4-1 can be retrieved in the MCR.

11.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.2.4-1 to perform active functions.

11.b) The valves identified in Table 2.2.4-1 as having PMS control perform an active safety function after receiving a signal from PMS.

12.a) The motor-operated valves identified in Table 2.2.4-1 perform an active safety-related function to change position as indicated in the table.

12.b) After loss of motive power, the remotely operated valves identified in Table 2.2.4-1 assume the indicated loss of motive power position.

### **Inspections/Tests/Analyses**

i) Testing will be performed to confirm closure of the valves identified in Table 2.2.4-3.

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

Stroke testing will be performed on the remotely operated valves listed in Table 2.2.4-1 using controls in the MCR.

i) Testing will be performed on the remotely operated valves listed in Table 2.2.4-1 using real or simulated signals into the PMS.

ii) Testing will be performed to demonstrate that remotely operated SGS isolation valves SGS-V027A/B, V040A/B, V057A/B, V250A/B close within the required response times.

iii) Tests of the motor-operated valves will be performed under pre-operational flow, differential pressure, and temperature conditions.

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

### **Acceptance Criteria**

i) The valves identified in Table 2.2.4-3 close after a signal is generated by the PMS.

Safety-related displays identified in Table 2.2.4-1 can be retrieved in the MCR.

Controls in the MCR operate to cause the remotely operated valves to perform active safety functions.

i) The remotely-operated valves identified in Table 2.2.4-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.

ii) These valves close within the following times after receipt of an actuation signal:

V027A/B < 44 sec

V040A/B, V057A/B < 5 sec

V250A/B < 5 sec

iii) Each motor-operated valve changes position as indicated in Table 2.2.4-1 under preoperational test conditions.

After loss of motive power, each remotely operated valve identified in Table 2.2.4-1 assumes the indicated loss of motive power position. Motive power to SGS-PL-V040A/B and SGS-PL-V057A/B is electric power to the actuator from plant services.

### **ITAAC Completion Description**

Testing and inspections are performed to, verify that the valves identified in COL Appendix C Table 2.2.4-3 (Attachment A and Attachment B) close after a signal is generated by the Protection and Safety Monitoring System (PMS), that safety-related displays identified in COL Appendix C Table 2.2.4-1 (Attachment C) can be retrieved in the Main Control Room (MCR), that controls in the MCR operate to cause the remotely operated valves in COL Appendix C Table 2.2.4-1 (Attachment D) to perform active safety functions, and the remotely operated valves identified in COL Appendix C Table 2.2.4-1 (Attachment E and Attachment F) as having PMS control perform the active function identified in the table after receiving a real or simulated signal from the PMS. This ITAAC also verifies selected Steam Generator System (SGS) valves close within the prescribed time after receipt of an actuation signal, that each Motor-Operated Valve (MOV) changes position as indicated in COL Appendix C Table 2.2.4-1 (Attachment G) under preoperational test conditions, and that after a loss of motive power, each remotely operated valve identified in COL Appendix C Table 2.2.4-1 (Attachment H) assumes the indicated loss of motive power position.

i) The valves identified in Table 2.2.4-3 close after a signal is generated by the PMS.

Testing is performed in accordance with Unit 3 and Unit 4 preoperational test procedures 3-PMS-ITPP-523, 4-PMS-ITPP-523 (References 1 and 2), 3-PMS-ITPP-504, 4-PMS-ITPP-504 (References 11 and 12), 3-TOS-ITPP-501, 4-TOS-ITPP-501 (References 13 and 14), and 3-PMS-ITPP-521, 4-PMS-ITPP-521 (References 15 and 16) to verify that the valves identified in Attachment A and Attachment B close after a signal is generated by the PMS.

Testing in references 1, 2, 15, and 16 is done to verify the valves in Attachment A close after a signal is generated by the PMS. Testing in reference 1 and 2 is performed by verifying the Moisture Separator Reheater 2nd Stage Steam Supply Isolation Valves (MSS-PL-V015A/B) are open. A High-2 containment pressure signal is simulated on 2 containment pressure instruments, the High-2 Containment Pressure Actuation signal is verified, and MSS-PL-V015A/B are locally verified to close.

Testing is performed in accordance with references 15 and 16 by verifying the Turbine Bypass Control Valves (MSS-PL-V001 through V006) are open. A low Tave signal is generated in the PMS system and the Turbine Bypass Control Valves are locally verified to close. This testing confirms that the valves in Attachment A close after a signal is generated by the PMS.

Testing in references 11, 12, 13, and 14 is done in 2 parts to verify the valves in Attachment B close after a signal is generated by the PMS. Testing is performed in accordance with references 13 and 14 to perform a trip solenoid valve functional test by verifying that when the master trip pilot solenoids (TOS-V174A1/A2, TOS-V174B1/B2) are de-energized, the spool moves to the tripped position and the main turbine stop and control valves close. Testing is performed in accordance with references 11 and 12 to verify the master trip pilot solenoids de-energize due to opening the Passive Residual Heat Removal (PRHR) heat exchanger outlet valve resulting in a signal from PMS to the reactor trip logic, causing a reactor trip and subsequent main turbine-generator trip signal. This testing confirms that the Unit 3 and Unit 4 valves in Attachment B close after a signal is generated by the PMS.

The combination of these tests verifies the valves identified in Table 2.2.4-3 close after a signal is generated by the PMS.

Safety-related displays identified in Table 2.2.4-1 can be retrieved in the MCR.

The inspection is performed in accordance with Unit 3 and Unit 4 component test procedures SNCXXXXXX and SNCYYYYYY (References 3 and 4) to verify that the safety-related displays identified in Attachment C can be retrieved in the MCR.

The component test is conducted at the MCR PMS Visual Display Units (VDUs) and verifies the safety-related displays in Attachment C can be retrieved in the MCR. Each valve and indication listed in Attachment C is located on the VDUs and verified to display. This confirms that all the safety-related displays identified in Table 2.2.4-1 can be retrieved in Unit 3 and Unit 4 MCR.

Controls in the MCR operate to cause the remotely operated valves to perform active safety functions.

The testing is performed in accordance with Unit 3 and Unit 4 component test procedures SNCXXXXXX and SNCYYYYYY (References 3 and 4) to verify that controls in the MCR operate to cause the remotely operated valves in Attachment D to perform active safety functions.

Testing is conducted at an operator work station in Unit 3 and Unit 4 MCR to verify the valves identified in Attachment D as being remotely operated and having active safety functions are stroked open and closed from the MCR. The valve positions are locally verified and also verified in the MCR. This confirms that controls in Unit 3 and Unit 4 MCR operate to cause the remotely operated valves to perform active safety functions.

i) The remotely-operated valves identified in Table 2.2.4-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.

Testing is performed in accordance with Unit 3 and Unit 4 preoperational test procedures 3-PMS-ITPP-523 and 4-PMS-ITPP-523 (References 1 and 2) and 3-PMS-ITPP-524 and 4-PMS-ITPP-524 (References 5 and 6) to confirm the remotely-operated valves identified in



Attachment E and Attachment F as having PMS control perform the active function identified in the table after receiving a signal from the PMS.

The testing is performed in accordance with references 1 and 2 and ensures the valves listed in Attachment E are Open. A High-2 containment pressure signal is simulated on 2 containment pressure instruments, the High-2 Containment Pressure Actuation signal is verified, and the valves in Attachment E are locally verified to transfer closed. This testing verifies the valves in Attachment E transfer closed.

Testing is performed in accordance with references 5 and 6 and ensures the feedwater valves listed in Attachment F are Open. A manual Feedwater Isolation signal is generated, the Feedwater Isolation Actuation signal is verified, and the feedwater isolation valves are locally verified to transfer closed. Then the steam generator relief valves listed in Attachment F are opened, a manual Steam Generator Relief Isolation is actuated, the Steam Generator Relief Actuation signal is verified, and the steam generator relief valves are locally verified to transfer closed. This testing verifies the valves in Attachment F transfer closed.

The combination of these tests confirms the remotely-operated valves identified in Table 2.2.4-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS for Unit 3 and Unit 4.

ii) These valves close within the following times after receipt of an actuation signal:

V027A/B < 44 sec

V040A/B, V057A/B < 5 sec

V250A/B < 5 sec

Testing is performed in accordance with Unit 3 and Unit 4 preoperational test procedures 3-PMS-ITPP-523 and 4-PMS-ITPP-523 (References 1 and 2) and 3-PMS-ITPP-524 and 4-PMS-ITPP-524 (References 5 and 6) to confirm the following valves close within the following times after receipt of an actuation signal: V027A/B < 44 sec; V040A/B, V057A/B < 5 sec; V250A/B < 5 sec.

Testing is performed in accordance with references 1 and 2 and begins by ensuring a trend is established to measure valve stroke time for V040A/B and V057A/B. These valves are verified to be Open, a High-2 containment pressure signal is simulated on 2 containment pressure instruments, the High-2 Containment Pressure Actuation signal is verified, and V040A/B and V057A/B are locally verified to close. The valve closure time is retrieved from the trend data and shows that Unit 3 SGS-PL-V040A closes in X sec, SGS-PL-V040B closes in Y sec, SGS-PL-V057A closes in X sec, and SGS-PL-V057B closes in Y sec. The valve closure time for Unit 4 shows that SGS-PL-V040A closes in X sec, SGS-PL-V040B closes in Y sec, SGS-PL-V057A closes in X sec, and SGS-PL-V057B closes in Y sec.

The testing performed by references 5 and 6 begins by ensuring a trend is established to measure valve stroke time for V250A/B. V250A and V250B are verified to be Open, a manual Feedwater Isolation signal is initiated, the Feedwater Isolation Actuation signal is verified, and V250A and V250B are locally verified to close.

In accordance with references 5 and 6 a trend is established to measure valve stroke time for V027A/B, both valves are verified to be Open, and a manual Steam Generator Relief Isolation is actuated. The Steam Generator Relief Actuation signal is verified, and V027A and V027B are

locally verified to close. The valve closure time is retrieved from the trend data and shows that Unit 3 SGS-PL-V027A closes in X sec, SGS-PL-V027B closes in Y sec, SGS-PL-250A closes in X sec, and SGS-PL-250B closes in Y sec. The valve closure time for Unit 4 shows that SGS-PL-V027A closes in X sec, SGS-PL-V027B closes in Y sec, SGS-PL-V250A closes in X sec, and SGS-PL-V250B closes in Y sec.

The combination of these tests confirm that these valves close within the following times after receipt of an actuation signal: V027A/B < 44 sec; V040A/B, V057A/B < 5 sec; V250A/B < 5 sec.

iii) Each motor-operated valve changes position as indicated in Table 2.2.4-1 under preoperational test conditions.

Testing is performed in accordance with Unit 3 and Unit 4 preoperational test procedures 3-SGS-ITPP-502 and 4-SGS-ITPP-502 (References 7 and 8) to verify each motor-operated valve changes position as indicated in Attachment G under preoperational test conditions.

The testing ensures the Reactor Coolant System (RCS) is at the 557°F plateau to establish the secondary system conditions required for this preoperational testing. The steam generator power operated relief valve is opened from the MCR, and SGS-PL-V027A (Power-operated Relief Valve Block MOV Steam Generator 01) is closed and locally verified to be closed. This testing is repeated for SGS-PL-V027B (Power-operated Relief Valve Block MOV Steam Generator 02).

Startup feedwater flow is verified to be 200 gpm or greater, and SGS-PL-067A (Startup Feedwater Isolation MOV) is closed and locally verified to be closed. This testing is repeated for SGS-PL-V067B (Startup Feedwater Isolation MOV).

The test results verify that for Unit 3 and Unit 4 each motor-operated valve changes position as indicated in Table 2.2.4-1 under preoperational test conditions.

After loss of motive power, each remotely operated valve identified in Table 2.2.4-1 assumes the indicated loss of motive power position. Motive power to SGS-PL-V040A/B and SGS-PL-V057A/B is electric power to the actuator from plant services.

Testing is performed in accordance with Unit 3 and Unit 4 component test procedures SNC922110 and SNCXXXXXX (References 9 and 10) to demonstrate that after a loss of motive power, each remotely operated valve identified in (Attachment H) assumes the indicated loss of motive power position. Motive power to SGS-PL-V040A/B and SGS-PL-V057A/B is electric power to the actuator from plant services (plant electrical power to the operating solenoids).

The component test configures and documents the air operated valves are in the Open position, removes power to the solenoid valve supplying air to the valve actuators which removes motive power from the valves. The air operated valves are locally verified to fail to their loss of motive power position (closed). The motor-operated valves (MOVs) are configured to the Open position, power is removed from the motor and the valves are verified to fail to their loss of motive power position (As-Is). The hydraulic/pneumatic valves (SGS-PL-V040A/B and SGS-PL-V057A/B) are configured to the Open position, power is removed from the actuator (electrical power to the operating solenoids), and the valves are verified to fail to their loss of motive power position (As-Is).

The test results verify that for Unit 3 and Unit 4 that after loss of motive power, each remotely operated valve identified in Table 2.2.4-1 assumes the indicated loss of motive power position. Motive power to SGS-PL-V040A/B and SGS-PL-V057A/B is electric power to the actuator from plant services.

The completed test results (References 1 through 16) are available for NRC inspection as part of Unit 3 and Unit 4 ITAAC Completion Packages (References 17 and 18).

### **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-PMS-ITPP-523, "Containment Pressure High-2 Actuation Preoperational Test Procedure"
2. 4-PMS-ITPP-523, "Containment Pressure High-2 Actuation Preoperational Test Procedure"
3. SNCXXXXXX, "SGS Remotely Operated Valve Stroke Test – ITAAC: SV3-2.2.04.12a.iii, Item 11a and 10"
4. SNCYYYYYY, "SGS Remotely Operated Valve Stroke Test – ITAAC: SV4-2.2.04.12a.iii, Item 11a and 10"
5. 3-PMS-ITPP-524, "PMS Cold Actuators Preoperational Test Procedure"
6. 4-PMS-ITPP-524, "PMS Cold Actuators Preoperational Test Procedure"
7. 3-SGS-ITPP-502, "Steam Generator System Hot Functional Preoperational Test Procedure"
8. 4-SGS-ITPP-502, "Steam Generator System Hot Functional Preoperational Test Procedure"
9. SNC922110, "SGS Remotely Operated Valve Loss of Motive Power Test – ITAAC: SV3-2.2.04.12a.iii, Item 12b"
10. SNCXXXXXX, "SGS Remotely Operated Valve Loss of Motive Power Test – ITAAC: SV4-2.2.04.12a.iii, Item 12b"
11. 3-PMS-ITPP-504, "PMS REACTOR TRIP BREAKERS"
12. 4-PMS-ITPP-504, "PMS REACTOR TRIP BREAKERS"
13. 3-TOS-ITPP-501, "Main Turbine Control and Diagnostics System Preoperational Test Procedure"
14. 4-TOS-ITPP-501, "Main Turbine Control and Diagnostics System Preoperational Test Procedure"
15. 3-PMS-ITPP-521, "Protection and Safety Monitoring System Logic Test Preoperational Test Procedure"
16. 4-PMS-ITPP-521, "Protection and Safety Monitoring System Logic Test Preoperational Test Procedure"
17. 2.2.04.12a.iii-U3-CP-Rev 0, ITAAC Completion Package
18. 2.2.04.12a.iii-U4-CP-Rev 0, ITAAC Completion Package
19. NEI 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52"

**Attachment A**

Excerpt from COL Appendix C Table 2.2.4-3

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Control Function</b>
Turbine Bypass Control Valve	MSS-PL-V001	Close
Turbine Bypass Control Valve	MSS-PL-V002	Close
Turbine Bypass Control Valve	MSS-PL-V003	Close
Turbine Bypass Control Valve	MSS-PL-V004	Close
Turbine Bypass Control Valve	MSS-PL-V005	Close
Turbine Bypass Control Valve	MSS-PL-V006	Close
Moisture Separator Reheater 2nd Stage Steam Isolation Valve	MSS-PL-V015A	Close
Moisture Separator Reheater 2nd Stage Steam Isolation Valve	MSS-PL-V015B	Close

**Attachment B**

Excerpt from COL Appendix C Table 2.2.4-3

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Control Function</b>
Turbine Stop Valve	MTS-PL-V001A	Close
Turbine Stop Valve	MTS-PL-V001B	Close
Turbine Control Valve	MTS-PL-V002A	Close
Turbine Control Valve	MTS-PL-V002B	Close
Turbine Stop Valve	MTS-PL-V003A	Close
Turbine Stop Valve	MTS-PL-V003B	Close
Turbine Control Valve	MTS-PL-V004A	Close
Turbine Control Valve	MTS-PL-V004B	Close

**Attachment C**

Excerpt from COL Appendix C Table 2.2.4-1

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Safety-Related Display</b>
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 01	SGS-PL-V027A	Yes (Valve Position)
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 02	SGS-PL-V027B	Yes (Valve Position)
Steam Line Condensate Drain Isolation Valve	SGS-PL-V036A	Yes (Valve Position)
Steam Line Condensate Drain Isolation Valve	SGS-PL-V036B	Yes (Valve Position)
Main Steam Line Isolation Valve	SGS-PL-V040A	Yes (Valve Position)
Main Steam Line Isolation Valve	SGS-PL-V040B	Yes (Valve Position)
Steam Line Condensate Drain Control Valve	SGS-PL-V086A	Yes (Valve Position)
Steam Line Condensate Drain Control Valve	SGS-PL-V086B	Yes (Valve Position)
Main Feedwater Isolation Valve	SGS-PL-V057A	Yes (Valve Position)
Main Feedwater Isolation Valve	SGS-PL-V057B	Yes (Valve Position)
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067A	Yes (Valve Position)
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067B	Yes (Valve Position)
Steam Generator Blowdown Isolation Valve	SGS-PL-V074A	Yes (Valve Position)
Steam Generator Blowdown Isolation Valve	SGS-PL-V074B	Yes (Valve Position)
Steam Generator Blowdown Isolation Valve	SGS-PL-V075A	Yes (Valve Position)
Steam Generator Blowdown Isolation Valve	SGS-PL-V075B	Yes (Valve Position)
Power-operated Relief Valve	SGS-PL-V233A	Yes (Valve Position)
Power-operated Relief Valve	SGS-PL-V233B	Yes (Valve Position)
Main Steam Isolation Valve Bypass Isolation	SGS-PL-V240A	Yes (Valve Position)
Main Steam Isolation Valve Bypass Isolation	SGS-PL-V240B	Yes (Valve Position)
Main Feedwater Control Valve	SGS-PL-V250A	Yes (Valve Position)
Main Feedwater Control Valve	SGS-PL-V250B	Yes (Valve Position)
Startup Feedwater Control Valve	SGS-PL-V255A	Yes (Valve Position)
Startup Feedwater Control Valve	SGS-PL-V255B	Yes (Valve Position)
Steam Generator 1 Narrow Range Level Sensor	SGS-001	Yes
Steam Generator 1 Narrow Range Level Sensor	SGS-002	Yes
Steam Generator 1 Narrow Range Level Sensor	SGS-003	Yes
Steam Generator 1 Narrow Range Level Sensor	SGS-004	Yes
Steam Generator 2 Narrow Range Level Sensor	SGS-005	Yes
Steam Generator 2 Narrow Range Level Sensor	SGS-006	Yes

**Attachment C (con't)**

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Safety-Related Display</b>
Steam Generator 2 Narrow Range Level Sensor	SGS-007	Yes
Steam Generator 2 Narrow Range Level Sensor	SGS-008	Yes
Steam Generator 1 Wide Range Level Sensor	SGS-011	Yes
Steam Generator 1 Wide Range Level Sensor	SGS-012	Yes
Steam Generator 2 Wide Range Level Sensor	SGS-013	Yes
Steam Generator 2 Wide Range Level Sensor	SGS-014	Yes
Steam Generator 1 Wide Range Level Sensor	SGS-015	Yes
Steam Generator 1 Wide Range Level Sensor	SGS-016	Yes
Steam Generator 2 Wide Range Level Sensor	SGS-017	Yes
Steam Generator 2 Wide Range Level Sensor	SGS-018	Yes
Main Steam Line Steam Generator 1 Pressure Sensor	SGS-030	Yes
Main Steam Line Steam Generator 1 Pressure Sensor	SGS-031	Yes
Main Steam Line Steam Generator 1 Pressure Sensor	SGS-032	Yes
Main Steam Line Steam Generator 1 Pressure Sensor	SGS-033	Yes
Main Steam Line Steam Generator 2 Pressure Sensor	SGS-034	Yes
Main Steam Line Steam Generator 2 Pressure Sensor	SGS-035	Yes
Main Steam Line Steam Generator 2 Pressure Sensor	SGS-036	Yes
Main Steam Line Steam Generator 2 Pressure Sensor	SGS-037	Yes
Steam Generator 1 Startup Feedwater Flow Sensor	SGS-55A	Yes
Steam Generator 1 Startup Feedwater Flow Sensor	SGS-55B	Yes
Steam Generator 1 Startup Feedwater Flow Sensor	SGS-56A	Yes
Steam Generator 1 Startup Feedwater Flow Sensor	SGS-56B	Yes

**Attachment D**

Excerpt from COL Appendix C Table 2.2.4-1

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Remotely Operated Valve</b>	<b>Active Function</b>
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 01	SGS-PL-V027A	Yes	Transfer Closed
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 02	SGS-PL-V027B	Yes	Transfer Closed
Steam Line Condensate Drain Isolation Valve	SGS-PL-V036A	Yes	Transfer Closed
Steam Line Condensate Drain Isolation Valve	SGS-PL-V036B	Yes	Transfer Closed
Main Steam Line Isolation Valve	SGS-PL-V040A	Yes	Transfer Closed
Main Steam Line Isolation Valve	SGS-PL-V040B	Yes	Transfer Closed
Steam Line Condensate Drain Control Valve	SGS-PL-V086A	Yes	Transfer Closed
Steam Line Condensate Drain Control Valve	SGS-PL-V086B	Yes	Transfer Closed
Main Feedwater Isolation Valve	SGS-PL-V057A	Yes	Transfer Closed
Main Feedwater Isolation Valve	SGS-PL-V057B	Yes	Transfer Closed
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067A	Yes	Transfer Closed
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067B	Yes	Transfer Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V074A	Yes	Transfer Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V074B	Yes	Transfer Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V075A	Yes	Transfer Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V075B	Yes	Transfer Closed
Power-operated Relief Valve	SGS-PL-V233A	Yes	Transfer Closed
Power-operated Relief Valve	SGS-PL-V233B	Yes	Transfer Closed
Main Steam Isolation Valve Bypass Isolation	SGS-PL-V240A	Yes	Transfer Closed

**Attachment D (con't)**

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Remotely Operated Valve</b>	<b>Active Function</b>
Main Steam Isolation Valve Bypass Isolation	SGS-PL-V240B	Yes	Transfer Closed
Main Feedwater Control Valve	SGS-PL-V250A	Yes	Transfer Closed
Main Feedwater Control Valve	SGS-PL-V250B	Yes	Transfer Closed
Startup Feedwater Control Valve	SGS-PL-V255A	Yes	Transfer Closed
Startup Feedwater Control Valve	SGS-PL-V255B	Yes	Transfer Closed

**Attachment E**

Excerpt from COL Appendix C Table 2.2.4-1

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Remotely Operated Valve</b>	<b>Control PMS</b>	<b>Active Function</b>
Steam Line Condensate Drain Isolation Valve	SGS-PL-V036A	Yes	Yes	Transfer Closed
Steam Line Condensate Drain Isolation Valve	SGS-PL-V036B	Yes	Yes	Transfer Closed
Main Steam Line Isolation Valve	SGS-PL-V040A	Yes	Yes	Transfer Closed
Main Steam Line Isolation Valve	SGS-PL-V040B	Yes	Yes	Transfer Closed
Steam Line Condensate Drain Control Valve	SGS-PL-V086A	Yes	Yes	Transfer Closed
Steam Line Condensate Drain Control Valve	SGS-PL-V086B	Yes	Yes	Transfer Closed
Main Feedwater Isolation Valve	SGS-PL-V057A	Yes	Yes	Transfer Closed
Main Feedwater Isolation Valve	SGS-PL-V057B	Yes	Yes	Transfer Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V074A	Yes	Yes	Transfer Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V074B	Yes	Yes	Transfer Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V075A	Yes	Yes	Transfer Closed



**Attachment E (con't)**

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Remotely Operated Valve</b>	<b>Control PMS</b>	<b>Active Function</b>
Steam Generator Blowdown Isolation Valve	SGS-PL-V075B	Yes	Yes	Transfer Closed
Main Steam Isolation Valve Bypass Isolation	SGS-PL-V240A	Yes	Yes	Transfer Closed
Main Steam Isolation Valve Bypass Isolation	SGS-PL-V240B	Yes	Yes	Transfer
Startup Feedwater Control Valve	SGS-PL-V255A	Yes	Yes	Transfer Closed
Startup Feedwater Control Valve	SGS-PL-V255B	Yes	Yes	Transfer Closed

**Attachment F**

Excerpt from COL Appendix C Table 2.2.4-1

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Remotely Operated Valve</b>	<b>Control PMS</b>	<b>Active Function</b>
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 01	SGS-PL-V027A	Yes	Yes	Transfer Closed
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 02	SGS-PL-V027B	Yes	Yes	Transfer Closed
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067A	Yes	Yes	Transfer Closed
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067B	Yes	Yes	Transfer Closed
Power-operated Relief Valve	SGS-PL-V233A	Yes	Yes	Transfer Closed
Power-operated Relief Valve	SGS-PL-V233B	Yes	Yes	Transfer Closed
Main Feedwater Control Valve	SGS-PL-V250A	Yes	Yes	Transfer Closed
Main Feedwater Control Valve	SGS-PL-V250B	Yes	Yes	Transfer Closed
Startup Feedwater Control Valve	SGS-PL-V255A	Yes	Yes	Transfer Closed
Startup Feedwater Control Valve	SGS-PL-V255B	Yes	Yes	Transfer Closed

**Attachment G**

Excerpt from COL Appendix C Table 2.2.4-1

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Active Function</b>
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 01	SGS-PL-V027A	Transfer Closed
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 02	SGS-PL-V027B	Transfer Closed
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067A	Transfer Closed
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067B	Transfer Closed

**Attachment H**

Excerpt from COL Appendix C Table 2.2.4-1

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Remotely Operated Valve</b>	<b>Loss of Motive Power Position</b>
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 01	SGS-PL-V027A	Yes	As Is
Power-operated Relief Valve Block Motor-operated Valve Steam Generator 02	SGS-PL-V027B	Yes	As Is
Steam Line Condensate Drain Isolation Valve	SGS-PL-V036A	Yes	Closed
Steam Line Condensate Drain Isolation Valve	SGS-PL-V036B	Yes	Closed
Main Steam Line Isolation Valve	SGS-PL-V040A	Yes	As Is
Main Steam Line Isolation Valve	SGS-PL-V040B	Yes	As Is
Steam Line Condensate Drain Control Valve	SGS-PL-V086A	Yes	Closed
Steam Line Condensate Drain Control Valve	SGS-PL-V086B	Yes	Closed
Main Feedwater Isolation Valve	SGS-PL-V057A	Yes	As Is
Main Feedwater Isolation Valve	SGS-PL-V057B	Yes	As Is
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067A	Yes	As Is

**Attachment H (con't)**

<b>Equipment Name</b>	<b>Tag No.</b>	<b>Remotely Operated Valve</b>	<b>Loss of Motive Power Position</b>
Startup Feedwater Isolation Motor-operated Valve	SGS-PL-V067B	Yes	As Is
Steam Generator Blowdown Isolation Valve	SGS-PL-V074A	Yes	Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V074B	Yes	Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V075A	Yes	Closed
Steam Generator Blowdown Isolation Valve	SGS-PL-V075B	Yes	Closed
Power-operated Relief Valve	SGS-PL-V233A	Yes	Closed
Power-operated Relief Valve	SGS-PL-V233B	Yes	Closed
Main Steam Isolation Valve Bypass Isolation	SGS-PL-V240A	Yes	Closed
Main Steam Isolation Valve Bypass Isolation	SGS-PL-V240B	Yes	Closed
Main Feedwater Control Valve	SGS-PL-V250A	Yes	Closed
Main Feedwater Control Valve	SGS-PL-V250B	Yes	Closed
Startup Feedwater Control Valve	SGS-PL-V255A	Yes	Closed
Startup Feedwater Control Valve	SGS-PL-V255B	Yes	Closed