Southern Nuclear

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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3
ITAAC Closure Notification on Completion of Item 2.2.02.07b.i [Index Number 138]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 3 Inspections Tests Analyses and Acceptance Criteria (ITAAC) Item 2.2.02.07b.i [Index Number 138] to verify that the PCS meets the design commitment as specified concerning the PCCWST and associated valves and components. The closure process for this ITAAC is based on the guidance described in NEI 08-01, "Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52", which is endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli A. Roberts at 706-848-6991.

Respectfully submitted,

Jamie Coleman

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Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 3
Completion of ITAAC 2.2.02.07b.i [Index Number 138]

JMC/DLW/sfr

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Southern Nuclear Operating Company
ND-22-0177
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3
Completion of ITAAC 2.2.02.07b.i [Index Number 138]

ITAAC Statement

Design Commitment

7.a) The PCS delivers water from the PCCWST to the outside, top of the containment vessel.

7.b) The PCS wets the outside surface of the containment vessel. The inside and the outside of the containment vessel above the operating deck are coated with an inorganic zinc material.

7.c) The PCS provides air flow over the outside of the containment vessel by a natural circulation air flow path from the air inlets to the air discharge structure.

7.d) The PCS drains the excess water from the outside of the containment vessel through the two upper annulus drains.

7.e) The PCS provides a flow path for long-term water makeup to the PCCWST.

9. Safety-related displays identified in Table 2.2.2-1 can be retrieved in the MCR.

10.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.2.2-1 to perform active functions.

10.b) The valves identified in Table 2.2.2-1 as having PMS control perform an active safety function after receiving a signal from the PMS.

11.a) The motor-operated valves identified in Table 2.2.2-1 perform an active safety-related function to change position as indicated in the table.

11.b) After loss of motive power, the remotely operated valves identified in Table 2.2.2-1 assume the indicated loss of motive power position.

Inspections/Tests/Analyses

i) Testing will be performed to measure the PCCWST delivery rate from each one of the three parallel flow paths.

ii) Testing and or analysis will be performed to demonstrate the PCCWST inventory provides 72 hours of adequate water flow.

i) Testing will be performed to measure the outside wetted surface of the containment vessel with one of the three parallel flow paths delivering water to the top of the containment vessel.

ii) Inspection of the containment vessel exterior coating will be conducted.

iii) Inspection of the containment vessel interior coating will be conducted.

Inspections of the air flow path segments will be performed.

Testing will be performed to verify the upper annulus drain flow performance.

ii) Testing will be performed to measure the delivery rate from the long-term makeup connection to the PCCWST.

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

Stroke testing will be performed on the remotely operated valves identified in Table 2.2.2-1 using the controls in the MCR.

Testing will be performed on the remotely operated valves in Table 2.2.2-1 using real or simulated signals into the PMS.

iii) Tests of the motor-operated valves will be performed under preoperational 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) When tested, each one of the three flow paths delivers water at greater than or equal to:
– 469.1 gpm at a PCCWST water level of 27.4 ft + 0.2, - 0.0 ft above the tank floor
– 226.6 gpm when the PCCWST water level uncovers the first (i.e. tallest) standpipe
– 176.3 gpm when the PCCWST water level uncovers the second tallest standpipe
– 144.2 gpm when the PCCWST water level uncovers the third tallest standpipe
– or a report exists and concludes that the as-measured flow rates delivered by the PCCWST to the containment vessel provides sufficient heat removal capability such that the limiting containment pressure and temperature values are not affected and the PCS is able to perform its safety function to remove heat from containment to maintain plant safety.

ii) When tested and/or analyzed with all flow paths delivering and an initial water level at 27.4 +0.2, -0.00 ft, the PCCWST water inventory provides greater than or equal to 72 hours of flow, and the flow rate at 72 hours is greater than or equal to 100.7 gpm or a report exists and concludes that the as-measured flow rates delivered by the PCCWST to the containment vessel provides sufficient heat removal capability such that the limiting containment pressure and temperature values are not affected and the PCS is able to perform its safety function to remove heat from containment to maintain plant safety.

i) A report exists and concludes that when the water in the PCCWST uncovers the standpipes at the following levels, the water delivered by one of the three parallel flow paths to the containment shell provides coverage measured at any elevation between elevation 266 ft. and the spring line that is equal to or greater than the stated coverages.
- 24.1 ± 0.2 ft above the tank floor; at least 90% of the perimeter is wetted.
- 20.3 ± 0.2 ft above the tank floor; at least 72.9% of the perimeter is wetted.
- 16.8 ± 0.2 ft above the tank floor; at least 59.6% of the perimeter is wetted.

ii) A report exists and concludes that the containment vessel exterior surface is coated with an inorganic zinc coating above elevation 135'-3".

iii) A report exists and concludes that the containment vessel interior surface is coated with an inorganic zinc coating above the operating deck.

Flow paths exist at each of the following locations:
– Air inlets
– Base of the outer annulus
– Base of the inner annulus
– Discharge structure

With a water level within the upper annulus 10" ±1" above the annulus drain inlet, the flow rate through each drain is greater than or equal to 525 gpm.

ii) With a water supply connected to the PCS long-term makeup connection, each PCS recirculation pump delivers greater than or equal to 100 gpm when tested separately.

Safety-related displays identified in Table 2.2.2-1 can be retrieved in the MCR.

Controls in the MCR operate to cause remotely operated valves identified in Table 2.2.2-1 to perform active functions.

The remotely operated valves identified in Table 2.2.2-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.

iii) Each motor-operated valve changes position as indicated in Table 2.2.2-1 under preoperational test conditions.

After loss of motive power, each remotely operated valve identified in Table 2.2.2-1 assumes the indicated loss of motive power position.

ITAAC Determination Basis

This ITAAC requires inspections, tests, and analyses be performed and documented to ensure the Passive Containment Cooling System (PCS) performs the required safety-related functions, and that the components identified in Combined License (COL) Appendix C, Table 2.2.2-1, (Attachments A - E), meet the applicable criteria of retrievable safety-related displays, can be remotely operated, perform the active safety function, and assume the indicated loss of motive power position as indicated in the table.

7.a. i) When tested, each one of the three flow paths delivers water at greater than or equal to:
– 469.1 gpm at a PCCWST water level of 27.4 ft + 0.2, - 0.0 ft above the tank floor
– 226.6 gpm when the PCCWST water level uncovers the first (i.e. tallest) standpipe
– 176.3 gpm when the PCCWST water level uncovers the second tallest standpipe
– 144.2 gpm when the PCCWST water level uncovers the third tallest standpipe
– or a report exists and concludes that the as-measured flow rates delivered by the PCCWST to the containment vessel provides sufficient heat removal capability such that the limiting containment pressure and temperature values are not affected and the PCS is able to perform its safety function to remove heat from containment to maintain plant safety.

The preoperational test was performed as documented in SV3-PCS-ITR-800138, (Reference 1), to measure the PCCWST delivery rate from each one of the three parallel flow paths. The PCCWST was filled to 58.2% (16.8 ft) and flow was initiated by opening one of the PCCWST outlet lines supplying the water distribution bucket.

The outlet line flow instruments were monitored, the steady-state flow rate was recorded and provided 149.5 gpm when the water level uncovered the third tallest standpipe. This was performed for the remaining 2 parallel flow paths and the most limiting flow path measurement was utilized. Level in the PCCWST was then raised to 70.5% (20.3 ft) and flow was initiated by opening one of the PCCWST outlet lines. The outlet line flow instruments were monitored, the steady-state flow rate was recorded and provided 182.3 gpm when the water level uncovered the second tallest standpipe. This was performed for the remaining 2 parallel flow paths and the most limiting flow path measurement was utilized. Level in the PCCWST was then raised to 83.9% (24.1 ft) and flow was initiated by opening one of the PCCWST outlet lines. The outlet line flow instruments were monitored, the steady-state flow rate was recorded and provided 237.4 gpm when the water level uncovered the first (i.e. tallest) standpipe. This was performed for the remaining 2 parallel flow paths and the most limiting flow path measurement was utilized. Level in the PCCWST was then raised to 95.4% (27.4 ft) and flow was initiated by opening one of the PCCWST outlet lines. The outlet line flow instruments were monitored, the steady-state flow was recorded and provided 467.9 gpm with a water level of 27.4 ft +0.2, -0.0 ft above the tank floor. This was performed for the remaining 2 parallel flow paths and the most limiting flow path measurement was utilized.

The minimum flow rates measured are shown below and demonstrate the acceptance criteria was not met for the level above all standpipes (27.4 ft +0.2, -0.0 ft) for Unit 3:
467.9 gpm at a PCCWST water level of 27.4 ft +0.2, -0.0 ft above the tank floor
237.4 gpm when the PCCWST water level uncovers the first (i.e. tallest) standpipe
182.3 gpm when the PCCWST water level uncovers the second tallest standpipe
149.5 gpm when the PCCWST water level uncovers the third tallest standpipe

Because of the flow value that did not meet the acceptance criteria, the alternate acceptance criteria was initiated and an analysis was performed and a report exists and concludes that the as-measured flow rates delivered by the PCCWST to the containment vessel provides sufficient heat removal capability such that the limiting containment pressure and temperature values are not affected and the PCS is able to perform its safety function to remove heat from containment to maintain plant safety. An evaluation report, documented in Reference 1, concluded that the as-measured flow rates provide sufficient heat removal capability. This conclusion satisfies the alternate acceptance criteria for this ITAAC test.

<u>7.a.ii) When tested and/or analyzed with all flow paths delivering and an initial water level at 27.4 + 0.2, - 0.00 ft, the PCCWST water inventory provides greater than or equal to 72 hours of flow, and the flow rate at 72 hours is greater than or equal to 100.7 gpm or a report exists and concludes that the as-measured flow rates delivered by the PCCWST to the containment vessel provides sufficient heat removal capability such that the limiting containment pressure and temperature values are not affected and the PCS is able to perform its safety function to remove heat from containment to maintain plant safety.</u>

The preoperational test was performed as documented in Reference 1 to demonstrate the PCCWST delivery rate at 72 hours was greater than or equal to 100.7 gpm. The test was started with the PCCWST at 27.4 + 0.2, -0.0 ft and all flow paths were opened. After 72 hours the flow rate was taken from all flowing standpipes and summed. The measured flow rate was 99.51 gpm for Unit 3 and did not meet the ITAAC acceptance criteria. Because the 72 hour flowrate was lower than specified, the alternate acceptance criteria was initiated. A report, documented in Reference 1, was developed and concludes that the as-measured flow rate delivered by the PCCWST to the containment vessel provided sufficient heat removal capabilities such that the limiting containment pressure and temperature values are not affected, and the PCS was able to perform its safety function to remove heat from containment to maintain plant safety. This conclusion satisfies the alternate acceptance criteria for this ITAAC test.

<u>7.b.i) A report exists and concludes that when the water in the PCCWST uncovers the standpipes at the following levels, the water delivered by one of the three parallel flow paths to the containment shell provides coverage measured at any elevation between elevation 266 ft. and the spring line that is equal to or greater than the stated coverages.</u>
<u>- 24.1 ±0.2 ft above the tank floor; at least 90% of the perimeter is wetted.</u>
<u>- 20.3 ±0.2 ft above the tank floor; at least 72.9% of the perimeter is wetted.</u>
<u>- 16.8 ±0.2 ft above the tank floor; at least 59.6% of the perimeter is wetted.</u>

Reference 2 documents the test performed to demonstrate the water delivered by one of the three parallel flow paths to the containment shell provided coverage measured at any elevation between elevation 266 ft. and the spring line that is equal to or greater than the required coverages. The wetted coverage measurements were performed by obtaining the as-built outer circumference of containment, dividing containment into 32 equal radial segments, measuring the dry portions of each section with a tape measure, and recording the data. The total dry length was divided by the circumference and subtracted from one (1) to convert to percent perimeter wetted. Testing was started by adjusting PCCWST level to 16.8 ±0.2 ft above the tank floor, opening the PCCWST outlet motor-operated valve (MOV) and monitoring and measuring the linear length of the containment vessel dry perimeter. PCCWST level was then adjusted to 20.3 ±0.2 ft above the tank floor, the PCCWST outlet MOV was opened and monitoring and measuring the linear length of the containment vessel dry perimeter. PCCWST level was then adjusted to 24.1 ±0.2 ft above the tank floor, the PCCWST outlet MOV was opened and monitoring and measuring the linear length of the containment vessel dry perimeter. The results of the testing demonstrate for Unit 3 that at 24.1 ±0.2 ft above the tank floor 100% of the perimeter is wetted, at 20.3 ±0.2 ft above the tank floor 95.63% of the perimeter is wetted, and at 16.8 ±0.2 ft above the tank floor 91.91% of the perimeter is wetted. These results conclude that when the water in the PCCWST uncovers the standpipes at the following levels, the water delivered by one of the three parallel flow paths to the containment shell provides coverage measured at any elevation between elevation 266 ft. and the spring line that is equal to or greater than the stated coverages.
- 24.1 ±0.2 ft above the tank floor; at least 90% of the perimeter is wetted.
- 20.3 ±0.2 ft above the tank floor; at least 72.9% of the perimeter is wetted.
- 16.8 ±0.2 ft above the tank floor; at least 59.6% of the perimeter is wetted.

<u>7.b.ii) A report exists and concludes that the containment vessel exterior surface is coated with an inorganic zinc coating above elevation 135'-3".</u>

The containment exterior vessel is coated and inspected by individual panels and then the panels are welded together. The seams are coated after welding and inspections are performed to ensure compliance with the requirements for inorganic zinc coatings. The inspections are compiled and reviewed, and a report concludes that the containment vessel exterior surface is coated with an inorganic zinc coating above elevation 135'-3". The inspection report SV3-PCS-ITR-801138, (Reference 3), exists and concludes that the containment vessel exterior surface is coated with an inorganic zinc coating above elevation 135'-3".

7.b.iii) A report exists and concludes that the containment vessel interior surface is coated with an inorganic zinc coating above the operating deck.

The containment interior vessel is coated and inspected by individual panels and then the panels are welded together. The seams are coated after welding and inspections are performed to ensure compliance with the requirements for inorganic zinc coatings. The inspections are compiled and reviewed and conclude that the containment vessel exterior surface is coated with an inorganic zinc coating above the operating deck. The inspection report SV3-PCS-ITR-801138, (Reference 3), exists and concludes that the containment vessel interior surface is coated with an inorganic zinc coating above the operating deck.

7.c) Flow paths exist at each of the following locations:
- Air inlets
- Base of the outer annulus
- Base of the inner annulus
- Discharge structure

The containment exterior natural circulation air flow path inspection was performed using SV3-PCS-ITR-802138 (Reference 4) to verify that the design attributes necessary to form the air flow path are complete. For the air inlets, the air flow path exists through the shield building louvers and inlet ducts, which serve to turn the flow downward. The air baffles and supports were inspected to confirm that the air flow path exists at the base of the outer annulus (i.e., between the shield building and air baffles) and at the base of the inner annulus (i.e., between the air baffles and containment vessel). The inspection verified that the air flow path exists through the discharge structure, which was formed by the opening in the top of the shield building to allow air to exit to the atmosphere. The results are documented in Reference 4 and validate that the air flow paths exist at the air inlets, base of the outer annulus, base of the inner annulus, and discharge structure.

7.d) With a water level within the upper annulus 10" ± 1" above the annulus drain inlet, the flow rate through each drain is greater than or equal to 525 gpm.

The preoperational test was performed as documented in SV3-PCS-ITR-800138, (Reference 1), to demonstrate the annulus drain flow rate through each drain is greater than or equal to 525 gpm when the water level above the drain inlet is 10” ±1". There are 2 drains in the upper annulus that drain the water that flows down the containment vessel when PCS is actuated. These drains prevent water accumulation around the containment vessel and direct it to the plant waste system. A temporary water box was installed inside the annulus around each drain outlet and marked to show 9” to 11” above each annulus drain. A temporary water source with a calibrated flow instrument was provided and the drains were verified to be clear of obstructions. With the drain plugged, flow is initiated into the temporary water box at a rate of 525 gpm until level reaches 10” ±1" then the drain is opened and the water flow into the temporary water box is adjusted to maintain the level at 10” ±1”. Since the inflow of water to the temporary water box is at a rate of 525 gpm or greater and maintaining the level between 9 inches and 11 inches, the drain rate is equal to the water inflow rate. Flow readings are taken on the temporary supply at approximately 10-second intervals for 30 readings and averaged. This testing is repeated for the other drain. The flow through the Unit 3 annulus drains was 751 gpm and 712 gpm. These values confirm that each annulus drain flow rate is greater than or equal to 525 gpm with water level in the upper annulus at 10” ±1".

<u>7.e.ii) With a water supply connected to the PCS long-term makeup connection, each PCS recirculation pump delivers greater than or equal to 100 gpm when tested separately.</u>

The preoperational test was performed as documented in SV3-PCS-ITR-800138, (Reference 1), to demonstrate that, with a water supply connected to the PCS long-term makeup connection, each PCS recirculation pump delivers greater than or equal to 100 gpm when tested separately.

A permanent plant flow instrument was utilized on the recirculation pumps discharge line to the PCCWST to monitor flow. A water source was connected to the long term makeup connection and the system appropriately aligned to provide a suction path to the PCS recirculation pumps. The A recirculation pump was started and the recirculation throttle valve was throttled to obtain between 110 gpm and 120 gpm, the flow meter readings were trended for 5 minutes and the readings were averaged. The B recirculation pump was started and the A recirculation pump was stopped and the process was repeated for the B recirculation pump. The Unit 3 A recirculation pump flow was 119.3 gpm and the B recirculation pump flow was 114.3 gpm. These values confirm with a water supply connected to the PCS long-term makeup connection, each PCS recirculation pump delivered greater than or equal to 100 gpm when tested separately.

<u>9.) Safety-related displays identified in Table 2.2.2-1 can be retrieved in the MCR.</u>

The inspection is performed in accordance with Unit 3 component test procedures as documented in SV3-PCS-ITR-803138 (Reference 5) to demonstrate the safety-related displays identified in Table 2.2.2-1 (Attachment A) can be retrieved in the MCR.

The component test directed using PMS Safety Display A, negotiating to the appropriate screens and verifying the safety-related displays in Attachment A were retrievable. This was repeated for all 3 of the remaining safety-related display panels. The results of the testing confirm the safety-related displays identified in Table 2.2.2-1 can be retrieved in the Unit 3 MCR and were captured in Reference 5.

<u>10.a) Controls in the MCR operate to cause remotely operated valves identified in Table 2.2.2-1 to perform active functions.</u>

The stroke testing is performed in accordance with Unit 3 component test procedure as documented in SV3-PCS-ITR-803138 (Reference 5), to demonstrate that controls exist in the MCR and the controls operate to cause the remotely operated valves identified in Table 2.2.2-1 (Attachment B) to perform active functions.

Reference 5 verifies the valves in Attachment B are in the closed position. The valves are stroked to the active function position using controls in the MCR, verified to be in the correct position locally and documented in the test. The test results confirm that controls in Unit 3 MCR operate to cause remotely operated valves identified in Table 2.2.2-1 to perform active functions and were captured in Reference 5.

10.b) The remotely operated valves identified in Table 2.2.2-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.

The component test is performed in accordance with Unit 3 component test procedure as documented in SV3-PCS-ITR-803138 (Reference 5), to demonstrate the valves identified in Table 2.2.2-1 (Attachment C) as having PMS control perform their active function after receiving a signal from PMS.

The test verifies the valves in Attachment C are in the closed position. A signal generated by PMS is actuated and the valves are verified to go to the open position locally. The test results confirm the remotely operated valves identified in Table 2.2.2-1 as having PMS control for Unit 3 perform the active function identified in the table after receiving a signal from the PMS and the results were captured in Reference 5.

11.a.iii) Each motor-operated valve changes position as indicated in Table 2.2.2-1 under preoperational test conditions.

The preoperational test is performed as documented in SV3-PCS-ITR-803138, (Reference 5), to demonstrate each motor-operated valve changes position as indicated in Table 2.2.2-1 (Attachment D) under preoperational test conditions.

The test ensures the PCCWST is filled and the PCCWST outlet valves are aligned to support testing. The flow path is aligned to allow the motor-operated valves identified in Attachment D to initiate flow when opened and each motor-operated valve is stroked open under these preoperational test conditions and verified by MCR indication. The test results, documented in Reference 5, demonstrate that for Unit 3 each motor-operated valve changes position as indicated in Table 2.2.2-1 under preoperational test conditions.

11.b) After loss of motive power, each remotely operated valve identified in Table 2.2.2-1 assumes the indicated loss of motive power position.

Testing is performed in accordance with Unit 3 component test procedures, as documented in SV3-PCS-ITR-803138 (Reference 5), to demonstrate that after a loss of motive power, each valve identified in Table 2.2.2-1 (Attachment E) assumes the indicated loss of motive power position.

The component tests configure and document the Air-operated valves (AOVs) identified in Table 2.2.2-1 in their pretest position with the valves closed and opening the power supply to their air supply solenoid. This caused the solenoid to de-energize which closed the air supply to the valve and opened a vent port to vent off the air in the actuator. The valves were verified locally and in the MCR to transfer to their loss of motive power position (Open).

The component tests configure and document the Motor Operated Valve (MOV) identified in Table 2.2.2-1 in their pretest position of closed. Each MOV was stroked Open by using the valve control circuit to de-energize the contactors, which removed motive power from the valve when the Open position was reached. This loss of power caused by the valve control circuit demonstrated the MOV failed “As-Is” (Open) when motive power was removed. Actual valve position was verified locally and in the MCR. Each MOV was also stroked Closed by using the valve control circuit to de-energize the contactors, which removed motive power from the valve when the Closed position was reached. This loss of power caused by the valve control circuit demonstrated that each MOV failed “As-Is” (Closed) when motive power was removed. Actual valve position was verified locally and in the MCR.

References 1 through 5 are available for NRC inspection as part of the ITAAC 2.2.02.07b.i Completion Package (Reference 6).

ITAAC Finding Review

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. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.2.02.07b.i (Reference 6) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.2.02.07b.i was performed for VEGP Unit 3 and that the prescribed acceptance criteria were met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

References (available for NRC inspection)

1. SV3-PCS-ITR-800138, Rev 0, “Unit 3 Passive Containment Cooling System Testing: ITAAC 2.2.02. 07b.i Items 7a.i, 7a.ii, 7d, & 7e.ii NRC Index Number: 138”
2. SV3-PCS-ITR-804138, Rev 0, “Unit 3 Passive Containment Cooling System Testing: ITAAC 2.2.02. 07b.i, Item 7b.i NRC Index Number: 138”
3. SV3-PCS-ITR-801138, Rev 0, “Unit 3 Passive Containment Cooling System (PCS) Inspection Coatings: ITAAC 2.2.02.07b.i Item 7.b ii) and iii) NRC Number: 138”
4. SV3-PCS-ITR-802138, Rev 0, “Unit 3 Passive Containment Cooling System (PCS) Inspection of Air Flow Path Segments: ITAAC 2.2.02.07b.i Item 7.c NRC Number: 138”
5. SV3-PCS-ITR-803138, Rev 0, “Unit 3 Passive Containment Cooling System Testing: ITAAC 2.2.02.07b.i Items 9, 10.a, 10.b, 11.a, & 11.b NRC Index Number: 138”
6. 2.2.02.07b.i-U3-CP-Rev0, ITAAC Completion Package

Attachment A

Excerpt from COL Appendix C Table 2.2.2-1

Component Name	Tag No.	Safety-Related Display
PCCWST Isolation Valve	PCS-PL-V001A	Yes (Valve Position)
PCCWST Isolation Valve	PCS-PL-V001B	Yes (Valve Position)
PCCWST Isolation Valve MOV	PCS-PL-V001C	Yes (Valve Position)
PCCWST Isolation Block MOV	PCS-PL-V002A	Yes (Valve Position)
PCCWST Isolation Block MOV	PCS-PL-V002B	Yes (Valve Position)
PCCWST Isolation Block MOV	PCS-PL-V002C	Yes (Valve Position)
PCS Water Delivery Flow Sensor	PCS-001	Yes
PCS Water Delivery Flow Sensor	PCS-002	Yes
PCS Water Delivery Flow Sensor	PCS-003	Yes
PCS Water Delivery Flow Sensor	PCS-004	Yes
Containment Pressure Sensor	PCS-005	Yes
Containment Pressure Sensor	PCS-006	Yes
Containment Pressure Sensor	PCS-007	Yes
Containment Pressure Sensor	PCS-008	Yes
PCCWST Water Level Sensor	PCS-010	Yes
PCCWST Water Level Sensor	PCS-011	Yes
High-range Containment Pressure Sensor	PCS-012	Yes
High-range Containment Pressure Sensor	PCS-013	Yes
High-range Containment Pressure Sensor	PCS-014	Yes

Attachment B

Excerpt from COL Appendix C Table 2.2.2-1

Component Name	Tag No.	Remotely Operated Valve	Active Function
PCCWST Isolation Valve	PCS-PL-V001A	Yes	Transfer Open
PCCWST Isolation Valve	PCS-PL-V001B	Yes	Transfer Open
PCCWST Isolation Valve MOV	PCS-PL-V001C	Yes	Transfer Open
PCCWST Isolation Block MOV	PCS-PL-V002A	Yes	Transfer Open
PCCWST Isolation Block MOV	PCS-PL-V002B	Yes	Transfer Open
PCCWST Isolation Block MOV	PCS-PL-V002C	Yes	Transfer Open

Attachment C

Excerpt from COL Appendix C Table 2.2.2-1

Component Name	Tag No.	Control PMS/DAS	Remotely Operated Valve	Active Function
PCCWST Isolation Valve	PCS-PL-V001A	Yes/Yes	Yes	Transfer Open
PCCWST Isolation Valve	PCS-PL-V001B	Yes/Yes	Yes	Transfer Open
PCCWST Isolation Valve MOV	PCS-PL-V001C	Yes/Yes	Yes	Transfer Open
PCCWST Isolation Block MOV	PCS-PL-V002A	Yes/No	Yes	Transfer Open
PCCWST Isolation Block MOV	PCS-PL-V002B	Yes/No	Yes	Transfer Open
PCCWST Isolation Block MOV	PCS-PL-V002C	Yes/No	Yes	Transfer Open

Attachment D

Excerpt from COL Appendix C Table 2.2.2-1

Component Name	Tag No.	Active Function
PCCWST Isolation Valve MOV	PCS-PL-V001C	Transfer Open
PCCWST Isolation Block MOV	PCS-PL-V002A	Transfer Open
PCCWST Isolation Block MOV	PCS-PL-V002B	Transfer Open
PCCWST Isolation Block MOV	PCS-PL-V002C	Transfer Open

Attachment E

Excerpt from COL Appendix C Table 2.2.2-1

Component Name	Tag No.	Remotely Operated Valve	Loss of Motive Power position
PCCWST Isolation Valve	PCS-PL-V001A	Yes	Open
PCCWST Isolation Valve	PCS-PL-V001B	Yes	Open
PCCWST Isolation Valve MOV	PCS-PL-V001C	Yes	As Is
PCCWST Isolation Block MOV	PCS-PL-V002A	Yes	As Is
PCCWST Isolation Block MOV	PCS-PL-V002B	Yes	As Is
PCCWST Isolation Block MOV	PCS-PL-V002C	Yes	As Is