Southern Nuclear

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MAY 1 1 2022

Docket No.: 52-025

ND-22-0327
10 CFR 52.99(c)(1)

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

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 3
ITAAC Closure Notification on Completion of ITAAC Item 2.6.03.04c [Index Number 603]

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 2.6.03.04c [Index Number 603]. This ITAAC required tests and inspections of the Class 1E dc and Uninterruptable Power Supply System (IDS) to confirm the specified criteria are met for IDS batteries, inverters, battery chargers, regulating transformers, and main control room displays. The closure process for this ITAAC is based on the guidance described in Nuclear Energy Institute (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.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) request 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 2.6.03.04c [Index Number 603]

JMC/DLW/sfr

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Southern Nuclear Operating Company
ND-22-0327
Enclosure

Vogtle Electric Generating Plant (VEGP) Unit 3
Completion of ITAAC 2.6.03.04c [Index Number 603]

ITAAC Statement

Design Commitment

4.c) Each IDS 24-hour battery bank supplies a dc switchboard bus load for a period of 24 hours without recharging.

4.d) Each IDS 72-hour battery bank supplies a dc switchboard bus load for a period of 72 hours without recharging.

4.e) The IDS spare battery bank supplies a dc load equal to or greater than the most severe switchboard bus load for the required period without recharging.

4.f) Each IDS 24-hour inverter supplies its ac load.

4.g) Each IDS 72-hour inverter supplies its ac load.

4.h) Each IDS 24-hour battery charger provides the PMS with two loss-of-ac input voltage signals.

5.a) Each IDS 24-hour battery charger supplies a dc switchboard bus load while maintaining the corresponding battery charged.

5.b) Each IDS 72-hour battery charger supplies a dc switchboard bus load while maintaining the corresponding battery charged.

5.c) Each IDS regulating transformer supplies an ac load when powered from the 480 V MCC.

6. Safety-related displays identified in Table 2.6.3-1 can be retrieved in the MCR.

11. Displays of the parameters identified in Table 2.6.3-2 can be retrieved in the MCR.

Inspections, Tests, Analyses

Testing of each 24-hour as-built battery bank will be performed by applying a simulated or real load, or a combination of simulated or real loads which envelope the battery bank design duty cycle. The test will be conducted on a battery bank that has been fully charged and has been connected to a battery charger maintained at 270±2 V for a period of no less than 24 hours prior to the test.

Testing of each 72-hour as-built battery bank will be performed by applying a simulated or real load, or a combination of simulated or real loads which envelope the battery bank design duty cycle. The test will be conducted on a battery bank that has been fully charged and has been connected to a battery charger maintained at 270±2 V for a period of no less than 24 hours prior to the test.

Testing of the as-built spare battery bank will be performed by applying a simulated or real load, or a combination of simulated or real loads which envelope the most severe of the division batteries design duty cycle. The test will be conducted on a battery bank that has been fully charged and has been connected to a battery charger maintained at 270±2 V for a period of no less than 24 hours prior to the test.

Testing of each 24-hour as-built inverter will be performed by applying a simulated or real load, or a combination of simulated or real loads, equivalent to a resistive load greater than 12 kW. The inverter input voltage will be no more than 210 Vdc during the test.

Testing of each 72-hour as-built inverter will be performed by applying a simulated or real load, or a combination of simulated or real loads, equivalent to a resistive load greater than 7 kW. The inverter input voltage will be no more than 210 Vdc during the test.

Testing will be performed by simulating a loss of input voltage to each 24-hour battery charger.

Testing of each as-built 24-hour battery charger will be performed by applying a simulated or real load, or a combination of simulated or real loads.

Testing of each 72-hour as-built battery charger will be performed by applying a simulated or real load, or a combination of simulated or real loads.

Testing of each as-built regulating transformer will be performed by applying a simulated or real load, or a combination of simulated or real loads, equivalent to a resistive load greater than 30 kW when powered from the 480 V MCC.

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

Inspection will be performed for retrievability of the displays identified in Table 2.6.3-2 in the MCR.

Acceptance Criteria

The battery terminal voltage is greater than or equal to 210 V after a period of no less than 24 hours with an equivalent load that equals or exceeds the battery bank design duty cycle capacity.

The battery terminal voltage is greater than or equal to 210 V after a period of no less than 72 hours with an equivalent load that equals or exceeds the battery bank design duty cycle capacity.

The battery terminal voltage is greater than or equal to 210 V after a period with a load and duration that equals or exceeds the most severe battery bank design duty cycle capacity.

Each 24-hour inverter supplies a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz.

Each 72-hour inverter supplies a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz.

Two PMS input signals exist from each 24-hour battery charger indicating loss of ac input voltage when the loss-of-input voltage condition is simulated.

Each 24-hour battery charger provides an output current of at least 150 A with an output voltage in the range 210 to 280 V.

Each 72-hour battery charger provides an output current of at least 125 A with an output voltage in the range 210 to 280 V.

Each regulating transformer supplies a line-to-line output voltage of 208 ± 2% V.

Safety-related displays identified in Table 2.6.3-1 can be retrieved in the MCR.

Displays identified in Table 2.6.3-2 can be retrieved in the MCR.

ITAAC Determination Basis

Multiple ITAAC were performed with inspections and tests to verify the Class 1E dc and Uninterruptible Power Supply System (IDS) 24-hour battery terminal voltage was greater than or equal to 210 V after a period of no less than 24 hours with an equivalent load that equaled or exceeded the battery bank design duty cycle capacity, the IDS 72-hour battery terminal voltage was greater than or equal to 210 V after a period of no less than 72 hours with an equivalent load that equaled or exceeded the battery bank design duty cycle capacity, the IDS spare battery terminal voltage was greater than or equal to 210 V after a period with a load and duration that equaled or exceeded the most severe battery bank design duty cycle capacity, and that two Protection and Safety Monitoring System (PMS) input signals exist from each 24-hour battery charger indicating loss of ac input voltage when the loss-of-input voltage condition was simulated. This ITAAC also verified each 24-hour inverter supplied a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz, each 72-hour inverter supplied a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz, each 24-hour battery charger provided an output current of at least 150 A with an output voltage in the range 210 to 280 V, each 72-hour battery charger provided an output current of at least 125 A with an output voltage in the range 210 to 280 V, and each regulating transformer supplied a line-to-line output voltage of 208 ± 2% V. This ITAAC also ensured safety-related displays identified in VEGP Combined License (COL) Appendix C Table 2.6.3-1 could be retrieved in the Main Control Room (MCR) and displays identified in Table 2.6.3-2 could be retrieved in the MCR.

<u>The battery terminal voltage is greater than or equal to 210 V after a period of no less than 24 hours with an equivalent load that equals or exceeds the battery bank design duty cycle capacity.</u>

Testing was performed in accordance with Unit 3 preoperational test procedure, as documented in Reference 1, to verify that each IDS 24-hour as-built battery bank terminal voltage is greater than or equal to 210 volts (V) after a period of no less than 24 hours with an equivalent load that equals or exceeds the battery bank IDS 24-hour design duty cycle capacity.

The preoperational test was performed on a fully charged IDS 24-hour battery bank that had been connected to a charger maintained at 270±2 V for a period of no less than 24 hours prior to the test. A battery service test in accordance with the provisions of Institute of Electrical and Electronics Engineers (IEEE) 450-1995 at the IDS 24-hour battery bank design duty cycle capacity was performed using a load bank to simulate plant equivalent loads. Battery bank terminal voltages were recorded and compared to the acceptance criteria. The IDS 24-hour battery bank terminal voltage measurements are summarized in Attachment A.

The Unit 3 test results, as compiled in Reference 1, confirmed that each IDS 24-hour as-built battery terminal voltage was greater than or equal to 210 V after a period of no less than 24 hours with an equivalent load that equals or exceeds the IDS 24-hour battery bank design duty cycle capacity.

The battery terminal voltage is greater than or equal to 210 V after a period of no less than 72 hours with an equivalent load that equals or exceeds the battery bank design duty cycle capacity.

Testing was performed in accordance with Unit 3 preoperational test procedure, as documented in Reference 1, to verify that each IDS 72-hour as-built battery bank terminal voltage is greater than or equal to 210 volts (V) after a period of no less than 72 hours with an equivalent load that equals or exceeds the IDS 72-hour battery bank design duty cycle capacity.

The preoperational test was performed on a fully charged IDS 72-hour battery bank that had been connected to a charger maintained at 270±2 V for a period of no less than 24 hours prior to the test. A battery service test in accordance with the provisions of Electrical and Electronics Engineers (IEEE) 450-1995 at the IDS 72-hour battery bank design duty cycle capacity was performed using a load bank to simulate plant equivalent loads. Battery bank terminal voltages were recorded and compared to the acceptance criteria. The IDS 72-hour battery bank terminal voltage measurements are summarized in Attachment B.

The Unit 3 test results, as compiled in Reference 1, confirmed that each IDS 72-hour battery bank terminal voltage was greater than or equal to 210 V after a period of no less than 72 hours with an equivalent load that equals or exceeds the IDS 72-hour battery bank design duty cycle capacity.

The battery terminal voltage is greater than or equal to 210 V after a period with a load and duration that equals or exceeds the most severe battery bank design duty cycle capacity.

Testing was performed in accordance with Unit 3 preoperational test procedure, as documented in Reference 1, to verify that the IDS spare as-built battery bank terminal voltage was greater than or equal to 210 V after a period with a load and duration that equals or exceeds the most severe IDS battery bank design duty cycle capacity.

The preoperational test was performed on a fully charged IDS spare battery bank that had been connected to a charger maintained at 270±2 V for a period of no less than 24 hours prior to the test. A battery service test in accordance with the provisions of Electrical and Electronics Engineers (IEEE) 450-1995 at the IDS spare battery bank design duty cycle capacity was performed using a load bank to simulate the most severe plant equivalent load profile from any of the 24 or 72 hour IDS divisions. Battery bank terminal voltages were recorded and compared to the acceptance criteria. The battery terminal voltage at test completion was 234.4 V for the Unit 3 IDS spare battery bank which demonstrates the IDS spare battery met the acceptance criteria.

The Unit 3 preoperational test results, as compiled in Reference 1, confirmed that the IDS spare as-built battery bank terminal voltage was greater than or equal to 210 V after a period with a load and duration that equals or exceeds the most severe IDS battery bank design duty cycle capacity.

Each 24-hour inverter supplies a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz.

Testing was performed in accordance with Unit 3 preoperational test procedure, as documented in Reference 2, to demonstrate that each IDS 24-hour inverter identified in Table 2.6.3-1 (Attachment C) supplied its ac load.

A load test was performed on each 24-hour inverter by applying a simulated load greater than 12 kilowatts (kW) with input voltage less than or equal to 210Vdc. Inverter input voltage, output voltage, and output frequency were measured during the test, and compared to the acceptance criteria. Output voltage was verified to meet the specified acceptance criteria of 208 ± 2% V at a frequency of 60 ± 0.5% Hertz (Hz). The results are tabulated in Attachment C for each IDS 24-hour inverter.

The Unit 3 preoperational test results, as compiled in Reference 2, confirmed that each IDS 24-hour inverter supplied a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz.

Each 72-hour inverter supplies a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz.

Testing was performed in accordance with Unit 3 preoperational test procedure, as documented in Reference 2, to demonstrate that each IDS 72-hour inverter identified in Table 2.6.3-1 (Attachment D) supplied its ac load.

A load test was performed on each 72-hour inverter by applying a simulated load greater than 7 kW with input voltage less than or equal to 210Vdc. Inverter input voltage, output voltage, and output frequency were measured during the test, and compared to the acceptance criteria. Output voltage was verified to meet the specified acceptance criteria of 208 ± 2% V at a frequency of 60 ± 0.5% Hertz (Hz). The results are tabulated in Attachment D for each IDS 72-hour inverter.

The Unit 3 preoperational test results, as compiled in Reference 2, confirmed that each IDS 72-hour inverter supplied a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz.

Two PMS input signals exist from each 24-hour battery charger indicating loss of ac input voltage when the loss-of-input voltage condition is simulated.

Testing was performed in accordance with Unit 3 component test package, as documented in Reference 3, to confirm two PMS input signals exist from each 24-hour battery charger indicating loss of ac input voltage when the loss-of-input voltage condition was simulated.

The component test established the initial conditions of the IDS Class 1E DC systems aligned and in service in accordance with the operating procedure. The division A battery charger input breaker was opened and both "Battery Charger UV" bistables were verified to be tripped. The division A battery charger input breaker was closed and both division A "Battery Charger UV" bistable trip indications were verified to have cleared. This testing was repeated for the remaining 24-hour battery chargers and the results are tabulated in Attachment E.

The Unit 3 test results, as compiled in Reference 3, confirmed that two PMS input signals exist from each 24-hour battery charger indicating loss of ac input voltage when the loss-of-input voltage condition is simulated.

<u>Each 24-hour battery charger provides an output current of at least 150 A with an output voltage in the range 210 to 280 V.</u>

Testing was performed in accordance with Unit 3 preoperational test procedure, as documented in Reference 4, and Factory Acceptance Testing (FAT), as documented in Reference 5, to confirm that each IDS 24-hour battery charger identified in Table 2.6.3-4 provided an output current of at least 150 A with an output voltage in the range 210 to 280 V.

The IDS 24-hour battery bank and dc switchboard were disconnected from the IDS 24-hour battery charger and a load bank was then connected to the output of the battery charger. The IDS 24-hour battery charger current and output voltage were measured using the battery charger installed instrumentation and recorded hourly for 8 hours. The recorded voltage and current remained within the acceptance criteria for each IDS 24-hour battery charger. Output voltage and current are compiled in Reference 4 to demonstrate the IDS as-built 24-hour battery chargers met the acceptance criteria.

Additionally, FAT was performed and followed 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 tested the battery chargers per the applicable criteria of NEMA PE 5 and were operated for 12 hours as indicated by recording of internal equipment temperatures of the chargers. The FAT tested the chargers in Boost mode for each charger, where the output current was maintained at approximately 200 ADC (190 ADC at 280 VDC) with an output voltage ranging from 182 VDC to 314 VDC, all while the input 3-phase AC source was varied from 384 to 528 VAC.

The Unit 3 preoperational test results and FAT results, as compiled in References 4 and 5, confirmed that each IDS 24-hour battery charger provided an output current of at least 150 A with an output voltage in the range 210 to 280 V.

<u>Each 72-hour battery charger provides an output current of at least 125 A with an output voltage in the range 210 to 280 V.</u>

Testing was performed in accordance with Unit 3 preoperational test procedure, as documented in Reference 4, and FAT, as documented in Reference 5, to confirm that each IDS 72-hour battery charger provided an output current of at least 125 A with an output voltage in the range 210 to 280 V.

The IDS 72-hour battery bank and DC switchboard were disconnected from the IDS 72-hour battery charger and a load bank was then connected to the output of the charger. The IDS 72-hour battery charger operation and output voltage were measured using the charger installed instrumentation and recorded hourly for 8 hours. The recorded voltage and current remained within the acceptance criteria for each IDS 72-hour battery charger. Output voltage and current are compiled in Reference 4 to demonstrate the IDS as-built 72-hour battery chargers met the acceptance criteria.

Additionally, FAT was performed and followed 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 tested the battery chargers per the applicable criteria of NEMA PE 5 and were operated for 12 hours as indicated by recording of internal equipment temperatures of the chargers. The FAT tested the chargers in Boost mode for each charger, where the output current was maintained at approximately 200 ADC (190 ADC at 280 VDC) with an output voltage ranging from 182 VDC to 314 VDC, all while the input 3-phase AC source was varied from 384 to 528 VAC.

The Unit 3 preoperational test results, and FAT results, as compiled in References 4 and 5, confirmed that each IDS 72-hour battery charger provided an output current of at least 125 A with an output voltage in the range 210 to 280 V.

Each regulating transformer supplies a line-to-line output voltage of 208 ± 2% V.

Testing was performed in accordance with Unit 3 preoperational test procedure, as documented in Reference 6, to confirm that each regulating transformer supplied a line-to-line output voltage of 208 ± 2% V.

The IDS system was aligned with the division A regulating transformer powered from the 480 V Motor Control Center and supplying a distribution panel with a load bank attached to the distribution panel. The load bank was then adjusted to greater than 30 KW and the division A regulating transformer output was recorded. This testing was repeated for the remaining division inverters. The regulating transformer line to line voltages are tabulated in Attachment F.

The Unit 3 preoperational test results, as compiled in Reference 6, confirmed that each regulating transformer supplied a line-to-line output voltage of 208 ± 2% V.

Safety-related displays identified in Table 2.6.3-1 can be retrieved in the MCR.

An inspection was performed to verify the retrievability of the Vogtle Electric Generating Plant (VEGP) Unit 3 safety-related displays in the MCR. The inspection for retrievability confirmed that the safety-related displays of the parameters identified in COL Appendix C Table 2.6.3-1 (Attachment G) can be retrieved in the MCR.

The inspection was performed in accordance the Unit 3 component test package, as documented in Reference 7, for IDS component indication verifications, and visually confirmed that when each of the safety-related displays identified in Attachment G was summoned at the MCR Protection and Safety Monitoring System (PMS) Visual Display Units (VDUs), the summoned safety-related display appeared on the PMS VDU.

The Unit 3 component test results, as compiled in Reference 7, confirmed that the VEGP Unit 3 safety-related displays listed in Attachment G could be retrieved in the MCR.

Displays identified in Table 2.6.3-2 can be retrieved in the MCR.

An inspection was performed to verify the retrievability of the VEGP Unit 3 plant parameters in the MCR. The inspection for retrievability confirmed that the displays of the parameters identified in COL Appendix C Table 2.6.3-2 (Attachment H) could be retrieved in the MCR.

The inspection was performed in accordance with the Unit 3 component test package, as documented in Reference 7, for IDS component indication verifications, and visually confirmed that when each of the displays of parameters identified in Attachment H was summoned at an MCR workstation, the summoned plant parameter appeared on a display monitor at that MCR workstation.

The Unit 3 component test results, as compiled in Reference 7, confirmed that the VEGP Unit 3 plant parameter displays listed in Attachment H could be retrieved in the MCR.

References 1 through 7 are available for NRC inspection as part of Unit 3 ITAAC Completion Package (Reference 8).

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This review found that there are 4 relevant ITAAC NRC findings associated with this ITAAC.

1. 05200025/2021002-03 (Closed – ML21133A105)
2. 05200025/2021002-05 (Closed – ML21133A105)
3. 05200025/2021002-02 (Closed – ML21316A057)
4. 05200025/2020009-02 (Closed – ML20315A137)

The corrective actions for each finding have been completed and each finding is closed. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.6.03.04c (Reference 8) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.6.03.04c 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. 3-IDS-ITR-800603, Rev 1, "Unit 3 Recorded Results of Battery Bank Testing: ITAAC 2.6.03.04c Items 4.c, 4.d, 4.e"
2. 3-IDS-ITR-801603, Rev 1, "Unit 3 Recorded Results of Inverter Testing: ITAAC 2.6.03.04c Items 4.f and 4.g"
3. SV3-IDS-ITR-805603, Rev 0, "Unit 3 Recorded Results of: ITAAC 2.6.03.04c (Items 4.h)"
4. 3-IDS-ITR-803603, Rev 0, "Unit 3 Recorded Results of Battery Charger Testing: ITAAC 2.6.03.04c Items 5.a and 5.b"
5. 2.6.03.04c-U3-PCD001-Rev0, "PCD Review Form Record Number"

6. 3-IDS-ITR-802603, Rev 0, "Unit 3 Recorded Results of Regulating Transformer Testing: ITAAC 2.6.03.04c Item 5.c"
7. SV3-IDS-ITR-804603, Rev. 0, "Unit 3 Inspection Results of Safety and Non-safety Displays: ITAAC: SV3-2.6.03.04c Items 6 and 11"
8. 2.6.03.04c-U3-CP-Rev0, ITAAC Completion Package

Attachment A

Unit	Equipment Name	Tag No.	Battery Bank Terminal Voltage
3	Division A 250 Vdc 24-Hour Battery Bank 1	IDSA-DB-1	237.3
3	Division B 250 Vdc 24-Hour Battery Bank 1	IDSB-DB-1	231.6
3	Division C 250 Vdc 24-Hour Battery Bank 1	IDSC-DB-1	241.3
3	Division D 250 Vdc 24-Hour Battery Bank 1	IDSD-DB-1	231.5

Attachment B

Unit	Equipment Name	Tag No.	Battery Bank Terminal Voltage
3	Division B 250 Vdc 72-Hour Battery Bank 2	IDSB-DB-2	234.9
3	Division C 250 Vdc 72-Hour Battery Bank 2	IDSC-DB-2	238.0

Attachment C

Unit	Equipment Name	Tag No.	Recorded Voltage Range (203.84 – 212.16)	Recorded Frequency Range (59.7 – 60.3)
3	Division A 24-Hour Inverter 1	IDSA-DU-1	207.4 – 207.7	60.0
3	Division B 24-Hour Inverter 1	IDSB-DU-1	207.1 – 207.2	60.0
3	Division C 24-Hour Inverter 1	IDSC-DU-1	207.2 – 207.4	60.0
3	Division D 24-Hour Inverter 1	IDSD-DU-1	206.7 – 206.7	60.0

Attachment D

Unit	Equipment Name	Tag No.	Recorded Voltage Range (203.84 – 212.16)	Recorded Frequency Range (59.7 – 60.3)
3	Division B 72-Hour Inverter 2	IDSB-DU-2	207.2 – 207.3	60.0
3	Division C 72-Hour Inverter 2	IDSC-DU-2	207.3 – 207.6	60.0

Attachment E

Unit	Equipment Name	*Tag No.	Battery Charger UV PMS Alarms
3	Division A 24-Hour Battery Charger 1	IDSA-DC-1	Yes
3	Division B 24-Hour Battery Charger 1	IDSB-DC-1	Yes
3	Division C 24-Hour Battery Charger 1	IDSC-DC-1	Yes
3	Division D 24-Hour Battery Charger 1	IDSD-DC-1	Yes

Attachment F

Unit	Equipment Name	Tag No.	Line-to-Line Voltage		
			A-B	B-C	A-C
3	Division A Regulating Transformer	IDSA-DT-1	205.5	206.6	204.8
3	Division B Regulating Transformer	IDSB-DT-1	205.4	206.2	203.9
3	Division C Regulating Transformer	IDSC-DT-1	209.4	209.7	207.7
3	Division D Regulating Transformer	IDSD-DT-1	208.3	209.4	207.7

Attachment G

***Excerpt from COL Appendix C Table 2.6.3-1**

Unit	***Equipment Name**	***Tag No.**	***Safety-Related Display**
3	Division A 250 Vdc Switchboard 1	IDSA-DS-1	Yes (Bus Voltage)
3	Division B 250 Vdc Switchboard 1	IDSB-DS-1	Yes (Bus Voltage)
3	Division B 250 Vdc Switchboard 2	IDSB-DS-2	Yes (Bus Voltage)
3	Division C 250 Vdc Switchboard 1	IDSC-DS-1	Yes (Bus Voltage)
3	Division C 250 Vdc Switchboard 2	IDSC-DS-2	Yes (Bus Voltage)
3	Division D 250 Vdc Switchboard 1	IDSD-DS-1	Yes (Bus Voltage)

Attachment H

***Excerpt from COL Appendix C Table 2.6.3-2**

Unit	*Equipment	*Tag No.	*Display/Status Indication
3	Division A Battery Monitor	IDSA-DV-1	Yes/ (Battery Ground Detection, Battery High Discharge Rate)
3	Division B 24-Hour Battery Monitor	IDSB-DV-1	Yes/ (Battery Ground Detection, Battery High Discharge Rate)
3	Division B 72-Hour Battery Monitor	IDSB-DV-2	Yes/ (Battery Ground Detection, Battery High Discharge Rate)
3	Division C 24-Hour Battery Monitor	IDSC-DV-1	Yes/ (Battery Ground Detection, Battery High Discharge Rate)
3	Division C 72-Hour Battery Monitor	IDSC-DV-2	Yes/ (Battery Ground Detection, Battery High Discharge Rate)
3	Division D Battery Monitor	IDSD-DV-1	Yes/ (Battery Ground Detection, Battery High Discharge Rate)
3	Division A Fused Transfer Switch Box	IDSA-DF-1	Yes/ (Battery Current, Battery Disconnect Switch Position)
3	Division B 24-Hour Fused Transfer Switch Box	IDSB-DF-1	Yes/ (Battery Current, Battery Disconnect Switch Position)
3	Division B 72-Hour Fused Transfer Switch Box	IDSB-DF-2	Yes/ (Battery Current, Battery Disconnect Switch Position)
3	Division C 24-Hour Fused Transfer Switch Box	IDSC-DF-1	Yes/ (Battery Current, Battery Disconnect Switch Position)
3	Division C 72-Hour Fused Transfer Switch Box	IDSC-DF-2	Yes/ (Battery Current, Battery Disconnect Switch Position)
3	Division D Fused Transfer Switch Box	IDSD-DF-1	Yes/ (Battery Current, Battery Disconnect Switch Position)
3	Division A Battery Charger	IDSA-DC-1	Yes/ (Charger Output Current, Charger Trouble(1))
3	Division B 24-Hour Battery Charger	IDSB-DC-1	Yes/ (Charger Output Current, Charger Trouble(1))
3	Division B 72-Hour Battery Charger	IDSB-DC-2	Yes/ (Charger Output Current, Charger Trouble(1))
3	Division C 24-Hour Battery Charger	IDSC-DC-1	Yes/ (Charger Output Current, Charger Trouble(1))
3	Division C 72-Hour Battery Charger	IDSC-DC-2	Yes/ (Charger Output Current, Charger Trouble(1))
3	Division D Battery Charger	IDSD-DC-1	Yes/ (Charger Output Current, Charger Trouble(1))

Note : (1) Battery charger trouble includes charger dc output under/over voltage