PMTurkeyCOLPEm Resource

From: Franzone, Steve <Steve.Franzone@fpl.com>
Sent: Tuesday, February 14, 2017 3:49 PM
To: Comar, Manny
Cc: TurkeyCOL Resource; Hoellman, Jordan; Maher, William; Orthen, Richard
Subject: [External_Sender] ITAAC review
Attachments: PageC-343_from Turkey Point Unit 6 COL Appendix C-2.pdf; PageC-505_ from Turkey Point Unit 6 COL Appendix C.pdf; LCB_4_from PART_10.pdf; PageC-341_from Turkey Point Unit 6 COL Appendix C-3.pdf

We have reviewed the draft ITAAC and have identified several potential editorials items:

1. Figure 2.6.1-1 (sheet 1 of 4) missing “m” in System, page C-343,
2. Table 2.3.8-4, C.3.8.04.01 - extra “mudmat” removed as compared to our submittal. Page C-505,
3. Table 2.6.1-4, We had identify an Item 4. g) (ref COLA, PART 10 LCB-4) which was to be inserted as a result of NRC bulletin 2012-01 which appears to be missing, page C-341.

I have attached the relevant pages .
In addition, based on the current schedule for preparing our Tech. Specifications I would expect to send the files by 3/15. We are working to improve that date.
Please let us know if have any questions.
Thanks
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NNP Licensing Manager - COLA
“Victory comes only to those prepared to make it, and take it.” ~ Thomas Leo Clancy Jr.
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From: Franzone, Steve

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Recipients:
"TurkeyCOL Resource" <TurkeyCOL.Resource@nrc.gov>
Tracking Status: None
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MESSAGE	1510	2/14/2017 3:49:28 PM
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LCB_4_from PART_10.pdf	73208	
PageC-341_from Turkey Point Unit 6 COL Appendix C-3.pdf	118010	

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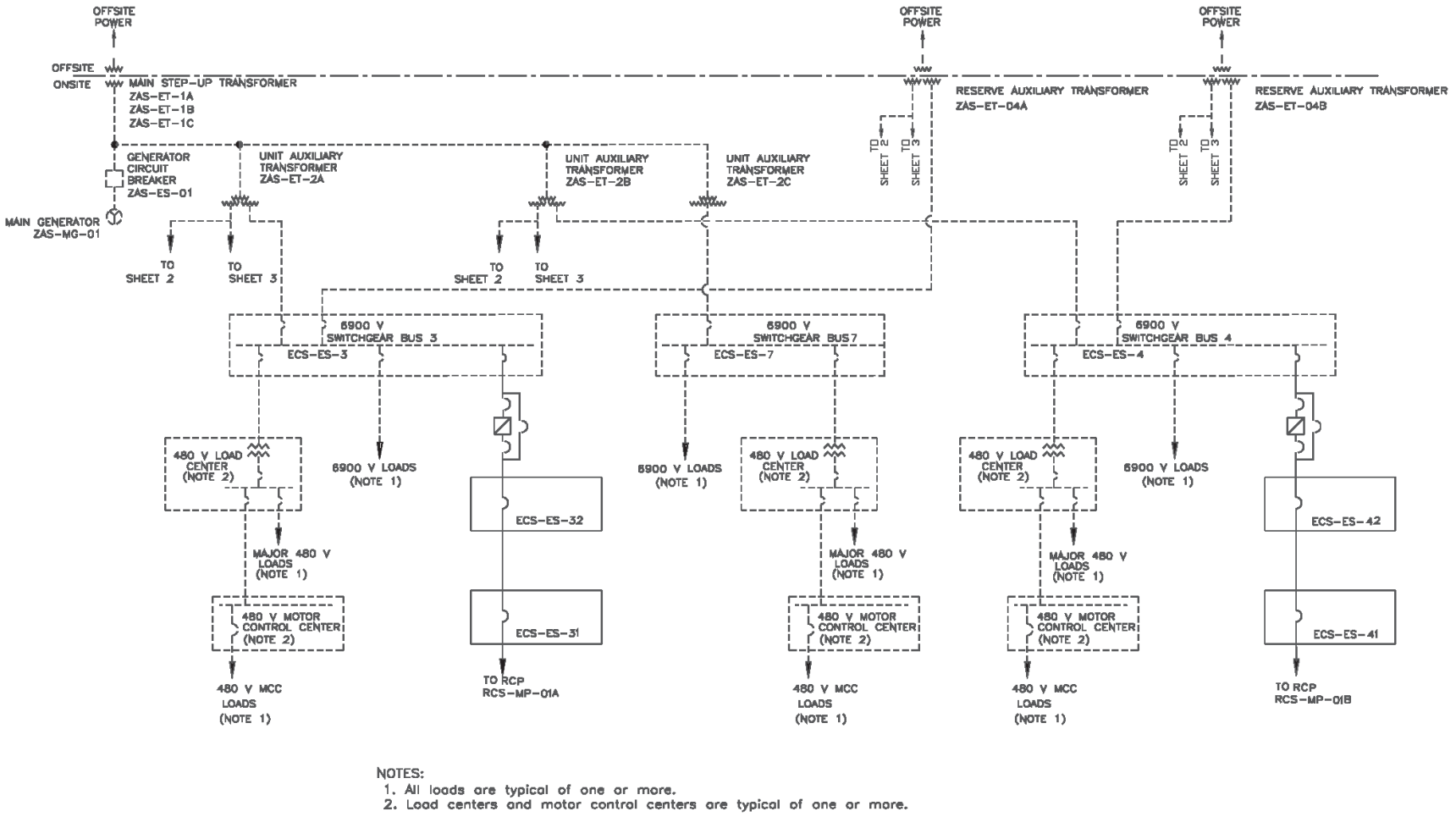

NOTES:
1. All loads are typical of one or more.
2. Load centers and motor control centers are typical of one or more.

Figure 2.6.1-1 (Sheet 1 of 4)
Main ac Power Syste

C.3.8.4 Waterproof Membrane

Table C.3.8-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
880	C.3.8.04.01	1. The friction coefficient to resist sliding is ≥ 0.55.	Testing will be performed to confirm that the mudmat-waterproofing interface beneath the Nuclear Island basemat has a coefficient of friction to resist sliding of ≥ 0.55.	A report exists and documents that the as-built waterproof system (mudmat-waterproofing interface) has a coefficient of friction of ≥ 0.55 as demonstrated through material qualification testing.

C.3.8.5 Concrete Fill

Table C.3.8-5
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
881	C.3.8.05.01	1. First lift of concrete fill placed under the nuclear island basemat, containment building, shield building, and auxiliary building meets durability requirements of ACI 201.2R-08, Table 6.3 for Class 2 sulfate exposure.	Delivery tickets will be prepared according to ACI 311.5 and inspected to ensure that the first lift of concrete fill (minimum thickness of 2.5 feet) meets durability requirements of ACI 201.2R-08, Table 6.3 for Class 2 sulfate exposure.	The first lift of concrete fill (minimum thickness of 2.5 feet) meets durability requirements of ACI 201.2R-08, Table 6.3 for Class 2 sulfate exposure.
882	C.3.8.05.02a	2. Concrete fill placed under the nuclear island basemat, containment building, shield building, and auxiliary building is designed, constructed, and tested as specified in ACI 207.1R-05.	(a) Testing will be performed in accordance with ACI 311.5 to determine the mean compressive strength of the concrete fill.	(a) The mean 28-day compressive strength of the concrete fill is equal to or greater than 1500 psi.
883	C.3.8.05.02b	2. Concrete fill placed under the nuclear island basemat, containment building, shield building, and auxiliary building is designed, constructed, and tested as specified in ACI 207.1R-05.	(b) Inspection will be performed to ensure that methods used to control thermal cracking are in accordance with ACI 207.1R-05.	(b) Methods used to control thermal cracking are in accordance with ACI 207.1R-05.

Add the following information to the information provided in the referenced DCD Tier 1 Section 2.6.1, as new item 4.g under the Design Description section:

4.g) The ECS provides an alarm in the MCR and automatic protection actuation if an undervoltage condition is detected on any one or more AC phases of either switchgear ECS-ES-1 or ECS-ES-2.

Add the following information to the information provided in the referenced DCD Tier 1 Section 2.6.1, as new item 4.g) in Table 2.6.1-4:

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
4.g) The ECS provides an alarm in the MCR and automatic protection actuation if an undervoltage condition is detected on any one or more AC phases of either switchgear ECS-ES-1 or ECS-ES-2.	i) Testing of the as-built ECS will be conducted by simulating an undervoltage condition on ECS-ES-1 and ECS-ES-2 to confirm that an MCR alarm is generated when one or more ECS bus phase voltages is below setpoint on either switchgear ECS-ES-1 or ECS-ES-2.	i) Undervoltage relays on ECS-ES-1 and ECS-ES-2 provide alarm when one or more AC phases on the 6.9 kV buses are below setpoint.
	ii) Testing of the as-built ECS will be conducted by simulating an undervoltage condition on ECS-ES-1 and ECS-ES-2 to confirm that loss of one or more ECS bus phases automatically actuates the electrical protection function logic.	ii) Undervoltage relays on ECS-ES-1 and ECS-ES-2 initiate protective action when one or more AC phases on the 6.9 kV buses are below setpoint.

Add the following information to the information provided in the referenced DCD Tier 1 following Section 2.6.11:

2.6.12 Transmission Switchyard and Offsite Power System

Table 2.6.12-1 provides a definition of the inspections, tests, and/or analyses, together with associated acceptance criteria for the offsite power system.

2.6.13 Offsite Retail Power System

No entry for this system.

The following non-system based site specific ITAAC are provided:

Pipe Rupture Hazard Analysis ITAAC

The ITAAC for Pipe Rupture Hazard Analysis are included in attached Table 3.8-2.

Piping Design ITAAC

The ITAAC for Piping Design are included in attached Table 3.8-3.

Table 2.6.1-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
587	2.6.01.04c	4.c) Each standby diesel generator 6900 Vac circuit breaker closes after receiving a signal from the onsite standby power system.	Testing will be performed using real or simulated signals from the standby diesel load system.	Each standby diesel generator 6900 Vac circuit breaker closes after receiving a signal from the standby diesel system.
588	2.6.01.04d	4.d) Each ancillary diesel generator unit is sized to supply power to long-term safety-related post-accident monitoring loads and control room lighting and ventilation through a regulating transformer; and for one PCS recirculation pump.	Each ancillary diesel generator will be operated with fuel supplied from the ancillary diesel generator fuel tank and with a load of 35 kW or greater and a power factor between 0.9 and 1.0 for a time period required to reach engine temperature equilibrium plus 2.5 hours.	Each diesel generator provides power to the load with a generator terminal voltage of 480 ± 10% volts and a frequency of 60 ± 5% Hz.
589	2.6.01.04e	4.e) The ECS provides two loss-of-voltage signals to the onsite standby power system (ZOS), one for each diesel-backed 6900 Vac switchgear bus.	Tests on the as-built ECS system will be conducted by simulating a loss-of-voltage condition on each diesel-backed 6900 Vac switchgear bus.	A loss-of-voltage signal is generated when the loss-of-voltage condition is simulated.
590	2.6.01.04f	4.f) The ECS provides a reverse-power trip of the generator circuit breaker which is blocked for at least 15 seconds following a turbine trip.	Tests on the as-built ECS system will be conducted by simulating a turbine trip signal followed by a simulated reverse-power condition. The generator circuit breaker trip signal will be monitored.	The generator circuit breaker trip signal does not occur until at least 15 seconds after the simulated turbine trip.
591	2.6.01.05	5. Controls exist in the MCR to cause the circuit breakers identified in Table 2.6.1-3 to perform the listed functions.	Tests will be performed to verify that controls in the MCR can operate the circuit breakers identified in Table 2.6.1-3.	Controls in the MCR cause the circuit breakers identified in Table 2.6.1-3 to operate.
592	2.6.01.06	6. Displays of the parameters identified in Table 2.6.1-3 can be retrieved in the MCR.	Inspection will be performed for retrievability of the displays identified in Table 2.6.1-3 in the MCR.	Displays identified in Table 2.6.1-3 can be retrieved in the MCR.