

SECTION 26 08 00  
COMMISSIONING OF ELECTRICAL SYSTEMS  
Construction Specifications

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to the Work of this Section.
- B. Specific commissioning requirements are given in the following sections of these specifications. It is the contractor's responsibility to coordinate all HVAC systems testing with the GC and all other trades performing related testing services. The division 26 contractor shall provide all T24 required testing by what T24 calls "Certified Acceptance Test Technician". All such tests shall be provided to the districts CxA for inclusion into the CxA reports and submitted according to T24 requirements.
  - 1. 01 91 00, "General Commissioning Requirements"
  - 2. 22 08 08, "Commissioning of Plumbing Systems."
  - 3. 23 08 08, "Commissioning of HVAC Systems."
  - 4. 25 55 00, "Facility Management System"
  - 5. ASHRAE Guideline 0-2013 or superseding ASHRAE guideline
  - 6. Title 24/2016 Section 120.8 or superseding CA Title 24 requirement

1.2 SUBMITALS

- A. General:
  - 1. Comply with Section –Submittal Procedures.
  - 2. See submittal requirements in Section 01 91 00–General Commissioning Requirements
- B. Prior to pre-functional testing:
  - 1. Provide a T24 Testing Plan for approval by the CxA
  - 2. Provide all Third Party Tests, including tests provided under other Division 26 sections, for inclusion into the CxA documentation

1.3 COORDINATION

- A. Close coordination with the FMS provider is required to coordinate testing and commissioning requirements with the provider of the Facility Management System 25 55 00 as required to provide the necessary commissioning services for all metering equipment.
- B. Close coordination with the FMS provider is required to facilitate the devices specified in 25 55 00. Even if provided by the FMS contractor, they are to be installed by the electrical Contractor. All metering equipment provided by the FMS contractor may require assistance by the electrical contractor for the testing and verification of the metering device.

## PART 2 PRODUCTS

### 2.1 TEST EQUIPMENT

- A. All standard testing equipment required to perform startup and initial checkout and required functional performance testing shall be provided by the Trade Contractor for the equipment being tested.
- B. Datalogging equipment or software required to test equipment will be provided by the contractor, if required, but shall not become the property of the Owner.
- C. All testing equipment shall be of sufficient quality and accuracy to test or measure system performance compliant with Public Utility standards.

## PART 3 EXECUTION

### 3.1 TESTING PREPARATION

- A. General Procedures are described in Section 01 91 00 – General Commissioning Requirements.
- B. Contractor shall perform all pre-functional performance tests with the tests approved by the CxA. The CxA and the owner shall be advised of all tests as required in this section and by the general commissioning requirements in 01 91 00.
- C. Pre-functional Checklists shall be completed and provided to the CxA for the following Electrical systems. These tests shall be provided even if the CxA does not provide related Functional performance tests for these systems:
  - 1. Contractor to develop, fill out and sign approved pre-functional checklists according to 01 91 00 requirements for the following equipment and systems:
    - a. Fire protection system (in conjunction with Fire Marshall Division)
    - b. Fire alarm/detection system (in conjunction with Fire Marshall Division)
    - c. Emergency power system (including emergency generator, automatic transfer switch and fuel oil system)
    - d. Power generation Equipment such as Fuel Cells, PV or other utility or island tied power generation equipment
    - e. Lighting control systems (interior and exterior)
    - f. Switchgear, transformers, panelboards and/or motor control centers
    - g. Lightning protection and/or surge suppression system
    - h. Elevator systems
- D. Prerequisites for Functional Testing:
  - 1. Contractor shall certify that Electrical systems, subsystems, and equipment are completed, third party tested, and started based on the tests verified and approved by the CP
  - 2. Contractor shall certify that the Facility Management systems pre-functional testing has been complete per 25 55 00. Coordinate with the 25 55 00 contractor if their work is not thru the Electrical contractor.

3.2 FUNCTIONAL PERFORMANCE TESTING

- A. General procedures are described in the Division 01 Section "General Commissioning Requirements." 01 91 00
- B. Contractor shall execute all functional performance tests provided by the Commissioning Provider. No functional tests shall be performed without the CxA present.
- C. The details of the functional performance tests shall be reviewed and refined during the construction phase by the CxA. The final test will be provided to the contractor at least 5 business days before the test is conducted.

3.3 ELECTRONIC DOCUMENT REQUIREMENTS

- A. All working documents shall be provided in electronic format whenever feasible. Hard copies are only permissible if soft copies of the documents are not available.
- B. In addition to the hard copy requirements required in this section, at least all final documents shall be provided un pdf format, organized and tabulated identical to any hard copies provided. Coordinate media requirements with the owner at the time of submission

END OF SECTION