

SECTION 260800  
ELECTRICAL SYSTEMS COMMISSIONING

PART 1 – GENERAL

1.1 STIPULATIONS

- A. The Specifications Sections "General Conditions of Contract", "Special Conditions" and "Division 1 – General Requirements" form a part of this Section by this reference thereto and shall have the same force and effect as if printed herewith in full.

1.2 RELATED DOCUMENTS

A. Related Sections

- 1. Section 019100 - Commissioning Requirements.

1.2 DESCRIPTION

- A. The Electrical Systems related to the Boiler Plant to be commissioned are as follows:
  - 1. Lighting and Lighting Controls
  - 2. Electrical Power Distribution System

PART 2 - PRODUCTS

2.1 TEST EQUIPMENT

- A. The .4 Contractor shall provide all equipment necessary to fulfill the testing requirements of Division 26.

PART 3 - EXECUTION

3.1 RESPONSIBILITIES

- A. .4 Contractor. The commissioning responsibilities applicable to the .4 Contractor are as follows:

Construction and Acceptance Phase

- 1. Attend the initial commissioning meeting conducted at the start of construction, the commissioning meeting held 30 days prior to startup of the primary equipment, and all commissioning team meetings.
- 2. Provide one copy of approved shop drawings and startup reports for all commissioned equipment to the CA. Supplement the shop drawing data with the manufacturer's installation and start-up procedures. This material should be identical to the literature, which will be included in the Operation and Maintenance Manuals.
- 3. The Operation and Maintenance Manuals shall be submitted to the CA prior to the start of training (3 weeks before start-up and training and at least 60 days before substantial completion).
- 4. During the startup and initial checkout process, execute all portions of the manufacturer's start-up checklists, for all commissioned electrical equipment.
- 5. Perform and clearly document all completed startup, pre-functional checklists and system operational checkout procedures, providing a copy to the CA.

6. The CA writes, coordinates, witnesses and conducts functional performance test procedures. Contractors for each trade shall provide the necessary support to the CA to complete functional testing.
7. Address current A/E punch list items and Commissioning corrective action items before functional and/or acceptance testing.
8. Provide skilled technicians to execute starting of equipment and to perform tests in accordance with all Division 26 sections. Ensure that they are available and present during the agreed upon schedules and for sufficient duration to complete the necessary tests, adjustments and problem-solving.
9. Correct deficiencies (differences between specified and observed performance) as interpreted by the CA and A/E and retest the equipment.
10. Provide training of the Owner's operating staff using expert qualified personnel, as specified.
11. Coordinate with equipment manufacturers to determine specific requirements to maintain the validity of the warranty.

#### Warranty Period

12. Correct deficiencies and make necessary adjustments to O&M manuals for applicable issues identified in any seasonal testing.

### 3.2 SUBMITTALS

- A. Copies of electrical shop drawings will be provided to CxA, when they are submitted to the Professional, electronically through E-Builder. CxA will review shop drawings concurrently with the Professional and provide any comments to the Professional so they may be included in their comments. Copies of approved shop drawings and startup reports for all commissioned equipment will be forwarded to the CxA through E-Builder. Supplement the shop drawing data with the manufacturer's installation and start-up procedures. This material should be identical to the literature which will be included in the Operation and Maintenance Manuals.
- B. These submittals to the CxA do not constitute compliance for O&M manual documentation. The O&M manuals are the responsibility of the Contractor, though the Professional will approve them.

### 3.3 STARTUP

- A. The .4 Contractor shall follow the start-up and initial checkout procedures listed in the Responsibilities list in this section. Equipment start-up is required to complete systems and sub-systems so they are fully functional, in compliance with the Contract Documents. The commissioning procedures and functional testing do not relieve or lessen this responsibility or shift that responsibility partially to the commissioning agent or Owner.
- B. Testing is intended to begin upon completion of a system.

### 3.4 TESTS

- A. Refer to applicable Division 26 sections for a description of the process, specific details, and/or standards referenced for acceptance testing.

### 3.5 WRITTEN WORK PRODUCTS

- A. Written work products of .4 Contractor will consist of the filled out start-up, initial checkout, pre-functional checklists, and test documentation in accordance with all Division 26 sections.

END OF SECTION