

**Part 1 GENERAL**

**1.1 DESCRIPTION**

- .1 Purpose:
  - .1 Verify operation and functional performance of all systems and equipment installed by Division 26 for compliance with "Design Intent" as described in the "Commissioning Manual" which shall be provided by the Contractor.
  - .2 Document all tests and inspections.
  - .3 Verify application of operation and maintenance manuals, as-built (record) documents, spare parts listings, special tools listing, and other items as may be specified herein for support of above systems and equipment.
  - .4 Co-ordinate and direct training to personnel for operation and maintenance of noted systems and equipment.
- .2 General:
  - .1 Furnish labour and material to accomplish complete commissioning as specified herein.
- .3 Commissioning Authority:
  - .1 The Departmental Representative shall act as the "Commissioning Authority".
- .4 Costs: Include all costs for manpower, travel, accommodations, meals, incidental expenses, etc. in the base tender price. Canada shall not pay any additional costs for "Commissioning".

**1.2 QUALITY ASSURANCE**

- .1 Provide for the complete commissioning periods, qualified tradesmen fully familiar with all mechanical aspects of the project.

**1.3 DOCUMENTATION**

- .1 Prior to the start of commissioning, assemble for the use of the commissioning team:
  - .1 Complete contract documents, including plans and specifications showing authorized revisions.
  - .2 As-Built record documents.
  - .3 Reviewed shop drawings.
  - .4 Test reports.
  - .5 Equipment start-up and certification reports.
  - .6 Records of required code authority inspections.

**1.4 SUBMITTALS**

- .1 Submit to the Commissioning Authority prior to Substantial Completion:
  - .1 A Training Plan describing the extent of training to be provided, expected duration, personnel involved and schedule.

## **1.5 RESPONSIBILITY OF OTHERS**

- .1 General Contractor:
  - .1 Verify completeness of the building envelope and other items which effect the proper operation of the systems.
  - .2 Assure the participation and cooperation of other divisions (mechanical, etc.) required for the commissioning process.
- .2 Mechanical Sub-Contractor and Manufacturers:
  - .1 Provide labour, material and equipment required within the scope of their specialty to facilitate the commissioning process.
  - .2 Perform tests and verification procedures required by the commissioning process when requested by the Commissioning Authority and directed by the Contractor.
- .3 Commissioning Authority:
  - .1 Provide management direction to the commissioning team during final field verification and commissioning.
- .4 Department Representative:
  - .1 Schedule personnel to participate in the commissioning process.
  - .2 Advise Commissioning authority regarding changes in building occupancy or usage.

## **Part 2 PRODUCTS**

### **2.1 INSTRUMENTATION**

- .1 Instrumentation for commissioning shall be provided by agency performing prior tests.

## **Part 3 EXECUTION**

### **3.1 COMMISSIONING**

- .1 Commissioning shall begin after all equipment and systems along with related equipment, systems and structure and areas are complete.

### **3.2 PRE-COMMISSIONING CHECKS**

- .1 Prior to advising Commissioning Authority that the systems are ready for final commissioning, perform and document pre-commissioning checks.
- .2 General:
  - .1 Painted finishes touched up where damaged.
  - .2 Installation complete, cleaned up and temporary tags, stickers and coverings removed.
  - .3 Safety and operating control setpoints are as designed and control sequences are as specified.

**END OF SECTION**