

COMMON WORK RESULTS FOR ELECTRICAL

1. GENERAL

1.1 Related Sections

- .1 Division 23.

1.2 References

- .1 Manitoba Electrical Code.

1.3 Definitions

- .1 Electrical and electronic terms: unless otherwise specified or indicated, terms used in these specifications, and on drawings, are those defined by IEEE SP1122.

1.4 Design Requirements

- .1 Operating voltages: to CAN3-C235.
- .2 Language operating requirements: provide identification nameplates and labels for control items in English.

1.5 Submittals

- .1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop drawings:
 - .1 Submit drawings.
 - .2 Submit wiring diagrams and installation details of equipment indicating proposed location, layout and arrangement, control panels, accessories, piping, ductwork, and other items that must be shown to ensure co-ordinated installation.
 - .3 If changes are required, notify Contract Administrator of these changes before they are made.

1.6 Operating Instructions

- .1 Provide for each system and principal item of equipment as specified in technical sections for use by operation and maintenance personnel.
- .2 Operating instructions to include following:
 - .1 Wiring diagrams, and control sequence for each principal system and item of equipment.
 - .2 Start up, operating, and shutdown procedures.
 - .3 Safety precautions.

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- .4 Procedures to be followed in event of equipment failure.
- .5 Other items of instruction as recommended by manufacturer of each system or item of equipment.

2. PRODUCTS

2.1 Materials and Equipment

- .1 Material and equipment to be CSA certified. Where CSA certified material and equipment are not available, obtain special approval from authority having jurisdiction before delivery to site and submit such approval as described in PART 1 - SUBMITTALS.

2.2 Equipment Identification

- .1 Identify electrical equipment with labels as follows:
 - .1 Nameplates: lamicoid as shown on drawings, lettering accurately aligned and engraved into core, mechanically attached with self tapping screws on equipment and boards and secured with ty-wraps on cables.
 - .2 Sizes as shown on drawing.

2.3 Wiring Identification

- .1 Identify wiring with permanent indelible identifying markings, on both ends of phase conductors of feeders and branch circuit wiring.
- .2 Maintain phase sequence and colour coding throughout.
- .3 Colour coding: to CSA C22.1.
- .4 Use colour coded wires in communication cables, matched throughout system.

3. EXECUTION

3.1 Demolition and Installation

- .1 Disconnect and remove existing cables, switches, junction boxes for existing two boilers and circulation pumps. Dispose of all disconnected equipment.
- .2 Remove cables back to panelboard. Prepare new typewritten panelboard legend sheet with unused breakers marked as "SPARE".
- .3 Install new power feeds and equipment as indicated on drawings and described herein. Complete installation in accordance with Manitoba Electrical Code except where specified otherwise.

3.2 Nameplates and Labels

- .1 Ensure manufacturer's nameplates, CSA labels and identification nameplates are visible and legible after equipment is installed.

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3.3 Mounting Heights

- .1 Mounting height of equipment is from finished floor to centreline of equipment unless specified or indicated otherwise.
- .2 If mounting height of equipment is not specified or indicated, verify before proceeding with installation.

3.4 Cleaning

- .1 Clean and touch up surfaces of shop-painted equipment scratched or marred during shipment or installation, to match original paint.
- .2 Clean and prime exposed non-galvanized hangers, racks and fastenings to prevent rusting.

END OF SECTION