

1.1 GENERAL

- .1 This Section covers items common to Sections of Division 26. This section supplements requirements of Division 01.

1.2 CODES AND STANDARDS

- .1 Do complete installation in accordance with the latest version of the
 - .1 Canadian Electrical Code CSA C22.1 plus latest issued amendments applicable,
 - .2 Provincial and Municipal Codes and Regulations and applicable parts of CSA Std. C22.2 and
 - .3 National Fire Code of Canada, 2015.
 - .4 Code, Statute, regulation, By-Law standards provided having most stringent requirements shall apply.
- .2 Abbreviations for electrical terms: to CSA Z85.

1.3 CARE, OPERATION, AND START-UP

- .1 Instruct operating personnel in the operation, care and maintenance of equipment.
- .2 Arrange and pay for services of manufacturer's factory service engineer to supervise start-up of installation, check, adjust, balance and calibrate components, for electrical systems.
- .3 Provide these services for such period, and for as many visits as necessary to put equipment in operation, and ensure that operating personnel are conversant with all aspects of its care and operation.

1.4 VOLTAGE RATINGS

- .1 Operating voltages: to CAN3-C235.
- .2 Motors, electric heating, control and distribution devices and equipment to operate satisfactorily at 60 Hz within normal operating limits established by above standard. Equipment to operate in extreme operating conditions established in above standard without damage to equipment.

1.5 PERMITS, FEES AND INSPECTION

- .1 Submit to Newfoundland and Labrador authority having jurisdiction necessary number of drawings and specifications for examination and approval prior to commencement of work.
- .2 Pay associated fees.

1.6 INSTALLERS QUALIFICATIONS

- .1 Installer required to be Newfoundland and Labrador licensed electrician.

1.7 MATERIALS AND EQUIPMENT

- .1 Provide materials and equipment in accordance with the drawings and tender documents.

- .2 Equipment and material to be CSA certified. Where there is no alternative to supplying equipment which is not CSA certified, obtain special approval from the Departmental Representative.

1.8 FINISHES

- .1 Clean and touch up surfaces of shop-painted equipment scratched or marred during shipment or installation, to match original paint.

1.9 WIRING IDENTIFICATION

- .1 Identify wiring with permanent indelible identifying markings, either numbered or coloured plastic tapes, on both ends.
- .2 Maintain phase sequence and colour coding throughout.
- .3 Colour code: to CSA C22.1.
- .4 Use colour coded wires in communication cables, matched throughout system.

1.10 WIRING TERMINATIONS

- .1 Lugs, terminals, screws used for termination of wiring to be suitable for either copper or aluminum conductors.

1.11 MANUFACTURERS AND CSA LABELS

- .1 Visible and legible after equipment is installed.

1.12 CONDUIT AND CABLE INSTALLATION

- .1 Install conduit and sleeves prior to pouring of concrete. Sleeves through concrete: schedule 40 steel pipe, sized for free passage of conduit, and protruding 50 mm.
- .2 Maintain separation of all intrinsically safe circuit conductor from other conductors in accordance with C22.1-02 and manufacturers recommendations.

1.13 CO-ORDINATION OF PROTECTIVE DEVICES

- .1 Ensure circuit protective devices such as overcurrent trips, relays and fuses are installed to required values and settings.

1.14 HAZARDOUS LOCATIONS

- .1 The electrical installation shall be in accordance with Section 18 and 20 of the Canadian Electrical Code C22.1, latest edition for hazardous areas. All electrical equipment, materials and installations shall be rated and installed for the area classification.
- .2 Review all existing equipment that is to be re-used and insure that it is rated for the area classification and is suitable for re-use. Advise the Departmental Representative of any exceptions.
- .3 All non-intrinsically safe electrical wiring entering and exiting hazardous areas shall be rated oil and gas resistant. Contractor shall use TWN75, THHN or THWN insulated wiring only.

1.15 IDENTIFICATION OF INTRINSIC SAFETY CIRCUITS AND EQUIPMENT

- .1 Identify all wiring, raceways and equipment that are intrinsically safe as required.

1.16 SHOP DRAWINGS

- .1 Submit electrical shop drawings for: emergency contactor and emergency stop button.

1.17 SCOPE OF WORK

- .1 Refer to Section 01 11 00 and design drawings for scope of work and project phasing.

END OF SECTION