

PART 1 - GENERAL

1.1 RELATED WORK

- .1 Section 26 05 00: Electrical General Requirements.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- .1 Clamps for grounding of conductor, size as required to grounding electrodes.
- .2 Rod electrodes, copper clad steel, 21 mm diameter, 3 m long.
- .3 System and circuit, equipment, grounding conductors, bare stranded copper, un- tinned, soft annealed, size as indicated.
- .4 Insulated grounding conductors: green, type RW90 in all conduits. Minimum size: #14 AWG or as indicated in Table No. 16 of C.E.C., whichever is larger.
- .5 Non-corroding accessories necessary for grounding system, type, size, material as indicated, including but not necessarily limited to:
 - .1 Grounding and bonding bushings.
 - .2 Protective type clamps.
 - .3 Bolted type conductor connectors.
 - .4 Thermit welded type conductor connectors.
 - .5 Bonding jumpers, straps.
 - .6 Pressure wire connectors.
- .6 Copper crimp type compression connectors, (long barrel, two hole).
- .7 Copper crimp type compression connectors (cable to cable, cable to ground rod, etc.)

2.2 MANUFACTURERS

- .1 Acceptable manufacturers: FCI - Burndy Corporation, Erico Inc., Thomas & Betts, Ilasco.

PART 3 - EXECUTION

3.1 INSTALLATION GENERAL

- .1 Install complete permanent, continuous, system and circuit, equipment, grounding systems including, conductors, connectors, accessories, as indicated, to conform to requirements of Departmental Representative, and local authority having jurisdiction over installation.
- .2 Install connectors in accordance with manufacturer's instructions.
- .3 Protect exposed grounding conductors from mechanical injury.
- .4 Make buried connections and connections to electrodes using exothermic welding process or inspectable copper crimp type compression connectors.
- .5 Use mechanical connectors for grounding connections to equipment provided with grounding lugs.
- .6 Soldered joints not permitted.
- .7 Make grounding connections in radial configurations only, with connections terminating at single grounding point. Avoid loop connections.
- .8 Provide insulated copper bonding conductor in all conduit runs.

3.2 ELECTRODES

- .1 Bond separate, multiple electrodes together.
- .2 Use copper conductors, size as indicated, for connections to electrodes.
- .3 Install grounding triad near the electrical service entrance and connect to electrical grounding system with copper conductor, size as indicated on the drawings.

3.3 SYSTEM AND CIRCUIT GROUNDING

- .1 Install system and circuit grounding connections to neutral of secondary systems.

3.4 EQUIPMENT GROUNDING

- .1 Install grounding connections to typical equipment included in, but not necessarily limited to following list: Service equipment, conduit support system, transformers, frames of motors and generators, switchboards, transfer switches, control panels, distribution panels, fuel tanks.
- .2 Install grounding connection(s) to generator frame and neutral in accordance with manufacturer's instructions and applicable CEC requirements.

3.5 FIELD QUALITY CONTROL

- .1 Perform tests in accordance with Section 26 05 00 – Electrical General Requirements.
- .2 Perform ground continuity and resistance tests using method appropriate to site conditions and to approval of the Departmental Representative and local authority having jurisdiction over installation.
- .3 Perform tests before energizing electrical system.

END OF SECTION