

## SECTION 16450 SECONDARY GROUNDING

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Power system grounding.
- B. Electrical equipment and raceway grounding and bonding.

#### 1.2 SYSTEM DESCRIPTION

- A. Provide a service ground at the service entrance.
- B. Connect load center feeder ground conductors to service ground at main service entrance.
- C. Connect branch circuit equipment wires to ground bus at load centers.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Service Ground Conductor: Bare copper, stranded conductor.
- B. Load Center Feeder Ground Conductor: Copper conductor.
- C. Branch Circuit Ground Conductors: Insulated (green) copper conductor.
- D. Ground Rods: 5/8-inch diameter, by 8-feet long, copper clad steel rods with bronze ground clamps.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Provide service ground system in accordance with Article 250 of NFPA 70. Connect service-grounding equipment to made electrodes as well as to the cold water service entrance pipe.
- B. Provide a separate grounding conductor in load center feeders and in all branch circuits provided under this contract. Terminate each end on a grounding lug, bus, or bushing.
- C. Provide grounding for service riser pole in accordance with all applicable *Central Maine Power Company* requirements.
- D. Provide grounding for each service transformer at transformer pad in accordance with all applicable *Central Maine Power Company* requirements.

3.2 FIELD QUALITY CONTROL

- A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.
- B. Measure ground resistance from system neutral connection at service entrance to convenient ground reference point using suitable ground testing equipment. Resistance shall not exceed 10 ohms.

END OF SECTION