

Reason: Virtually no footer contractors carry grounding clamps. Therefore, most expose a piece of rebar and the electrician attaches an acorn clamp to connect a 4 gauge grounding electrode conductor. This connection is compliant with the highlighted section of E3611.1. This connection is often then buried in the floor concrete for neatness and because of length. This requirement should only apply if a non-compliant clamp is used.

Section E3611.5 is indirect conflict with E3608.1.2 and E3611.1 – see below.

E3608.1.2 Concrete-encased electrode. Metallic components shall be encased by at least 2 inches (51 mm) of concrete and shall be located horizontally within that portion of a concrete foundation or footing that is in direct contact with the earth or within vertical foundations or structural components or members that are in direct contact with the earth.

E3611.1 Methods of grounding conductor connection to electrodes. The grounding or bonding conductor shall be connected to the grounding electrode by exothermic welding, listed lugs, listed pressure connectors, listed clamps or other listed means. Connections depending on solder shall not be used. Ground clamps shall be listed for the materials of the grounding electrode and the grounding electrode conductor and, where used on pipe, rod or other buried electrodes, shall also be listed for direct soil burial or concrete encasement.

E3611.5 Rebar type concrete-encased electrode. Where a grounding electrode conductor or bonding jumper is connected to a rebar extended from the location of a rebar-type concrete-encased electrode installed in accordance with Section E3608.1.2, the point of connection to the rebar extension shall be in an accessible location that is not subject to corrosion of the rebar. The rebar extension shall not be exposed to contact with the earth without corrosion protection.