

OSHA AND INSECT-O-CUTOR® COMPLIANCE — ELECTRICAL STANDARDS

The USA's Occupational Safety and Health Administration (OSHA) has established general industry electrical standards based on the National Fire Protection Association Standards NFPA 70 and the National Electric Code (NEC) as published in OSHA Title 29 Code of Federal Regulations (CFR), Part 1910.302 through 1910.308 — Design Safety Standards for Electrical Systems; and 1910.331 through 1910.335 — Electrical Safety-Related Work Practices Standards.

OSHA requires that "certain approved testing organizations test and certify electrical equipment before use in the workplace to ensure it is safe". Specific Insect-O-Cutor® models are safety tested, approved and listed by **Intertek Testing Services, N.A. Inc.** (ETL® and/or ITS) and **Canadian Standards International (CSA®)**, both of which are nationally recognized testing laboratories (NRTL's). Their markings must and do appear on Insect-O-Cutor's® respective listed products.



While Insect-O-Cutor® products are designed and constructed to meet all governing standards, safe procedures in maintaining them should be followed.

Only qualified electricians who have been trained in safe procedures should maintain Insect-O-Cutor® equipment.

Note that 24 states and two territories operate their own OSHA-approved programs that must be at least as effective as OSHA's. This list is publicly available at OSHA's website www.OSHA.gov.

Also refer to **OSHA 3075 [2002]** "Controlling Electrical Hazards"; and to "Safety and Health Program Management Guidelines (**Federal Register 54(18):3904-3916**). In Canada, please refer to the Canadian Centre for Occupational Health and Safety (CCOHS) which implements similar code including N.E.C.'s.

OSHA "Definitions" applicable to 1910.302 through 1910.330 are specified in 29CFR, Subpart S, Standard Number 1910.399. Some of those are:

"Certified" — Equipment is "certified" if it (a) has been tested and found by an NRTL to meet nationally recognized standards or to be safe for use in a specified manner, or (b) is of a kind whose production is periodically inspected by an NRTL, and (c) it bears a label, tag, or other record of certification.

"Equipment" — A general term including material, fittings, devices, appliances, fixtures, apparatus, and the like, used as a part of, or in connection with, an electrical installation.

"Listed" — Equipment is "listed" if it is of a kind mentioned in a list which, (a) is published by an NRTL which makes periodic inspection of the production of such equipment, and (b) states such equipment meets nationally recognized standards or has been tested and found safe for use in a specified manner.

"Guarded" — Covered, shielded, fenced, enclosed, or otherwise protected by means of suitable covers, casings, barriers, rails, screens, mats, or platforms to remove the likelihood of approach to a point of danger or contact by persons or objects.

1910.303.(b)(1)(i)
Suitability of equipment or materials for a specific purpose, environment or application may be determined by a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation as part of its listing and labeling program.

1910.303(b)(2)
Installation and Use. Listed or labelled equipment shall be used or installed in accordance with any instructions including in the listing or labelling.

1910.303(d)
Arcing parts. Parts of electric equipment which in ordinary operation produce arcs, sparks, flames, or molten metal shall be enclosed or separated and isolated from all combustible material.

1910.303(e)
Marking. Electrical equipment may not be used unless the manufacturer's name, trademark, or other descriptive marking by which the organization responsible for the product may be identified is placed on the equipment. Other markings shall be provided giving voltage, current, wattage, or other ratings as necessary. The marking shall be of sufficient durability to withstand the environment involved.

Guarding of live parts.

1910.303(g)(2)(i)
Except as required or permitted elsewhere in this subpart, live parts of electric equipment operating at 50 volts or more shall be guarded against accidental contact...

1910.303(g)(2)(i)(C)
...By location on a suitable balcony, gallery, or platform so elevated and arranged as to exclude unqualified persons.

1910.303(g)(2)(i)(D)
...By **elevation of 8 feet (2.44 meters) or more above the floor or other working surface.**"

1910.303(h)(2)(i)
Installations accessible to qualified persons only. Electrical installations having exposed live parts shall be accessible to qualified persons only and shall comply with the application provisions of paragraph (h)(3) of this section.

1910.303(h)(2)(ii)
Installations accessible to unqualified persons. Electrical installations that are open to unqualified persons shall be made with metal-enclosed equipment or shall be enclosed in a vault or in an area, access to which is controlled by a lock. If metal-enclosed equipment is installed so that the bottom of the enclosure is less than 8 feet above the floor, the door or cover shall be kept locked."

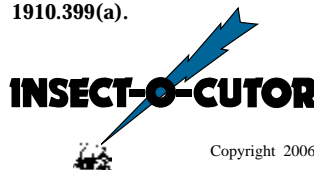
"If equipment is exposed to physical damage from vehicular traffic, suitable guards shall be provided to prevent such damage".

1910.303(h)(3)(ii)
Elevation of unguarded live parts. Unguarded live parts above working space shall be maintained at elevations...."

...Up to 7500 Nominal Voltage; 8 feet 6 inches.

1910.304(f)
Insect-O-Cutor® equipment must be properly grounded.

1910.307
Insect-O-Cutor® equipment must not be installed in any Divisions of Class I, Class II, or Class III Hazardous (classified) locations [those with presence of combustible properties such as gas, vapor, dust, or fibers in sufficient quantities to produce explosive or ignitable mixtures...]. For a full description of these locations, please see 29CFR 1910.399(a).



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