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**SAFETY IS AN INVESTMENT IN YOUR FUTURE.**

Everything starts with Safety at IEC

**Electrical Safety – Listing & Labeling Requirements**

Toolbox Talk # 5059

It is not unheard of for someone, be it accidentally or intentionally, to utilize an electrical device or component for a purpose for which it is not designed. But how do we know what we can use them for, and conversely, what we cannot? According to OSHA electrical safety standards, we must only use electrical devices and components according to their “listed instructions”.

Most electrical devices and components are tested for very specific purposes by an independent testing lab, such as the one at Underwriters Laboratories, also known as UL. If approved by the testing lab, the device gets labelled and specific instructions for its proper use are listed by the lab. But here are a couple of examples of UL listed electrical equipment being misused on the jobsite:

• Power Strips – These devices are called “relocatable power taps” in the UL book. Sometimes power strips are equipped with an internal breaker that serves as a surge protector. The instructions listed in the UL White Book for power strips and surge protectors states they are only intended for indoor use, and never for use on construction sites and similar locations. They are intended to be directly connected to a permanently installed branch-circuit receptacle outlet only, and not intended to be series connected (aka daisy chained) to other relocatable power strips or to extension cords. In addition, they are not intended to be permanently secured to building structures, tables, work benches or similar structures, nor are they intended to be used as a substitute for fixed wiring (see handout for some examples of misuse). Last but not least, they are only rated for 20 amps or less of power in total, meaning they are typically intended for use only with a few smaller appliances (such as computers and printers) and not for connecting to higher amperage tools or appliances like microwave ovens and heaters (or refrigerators, or hammer drills, or grinders).

• Electrical Outlet Boxes – It is not uncommon to find a standard metallic electrical outlet box, like those you normally see affixed to the wall for power cords to plug into, attached to the end of an extension cord being used on a construction site, in a manufacturing shop, or even in an office or warehouse (see handout for examples). But according to the instructions found in the Underwriters Laboratories White Book, a standard metallic electrical outlet box must be utilized and installed in accordance with Article 314 of The National Electrical Code. That NEC code states that standard metallic outlet boxes are to be mounted onto a solid structure or similar surface (like a wall or electrical chase-way), or as part of an approved pendant system. But nowhere does that code discuss attaching a standard metallic outlet box onto the end of an electrical cord to provide temporary power on the job site. Don’t do that!

These are only two examples of electrical equipment or devices being used for purposes for which they are not intended, per their listing instructions. If you do see electrical devices being misused at the jobsite, please notify your supervisor or safety rep so the hazard can be corrected as quickly as possible.

Please read and understand this important document and sign on the reverse side that you have done so.

YOUR SIGNATURE ON THE REVERSE SIDE INDICATES THAT YOU HAVE READ AND UNDERSTAND THE CONTENTS OF THIS DOCUMENT.

Phone 614-473-1050 email: JVan@IECCentralOH.org website: [www.ieccentraloh.org](http://www.ieccentraloh.org)

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Attendance – Toolbox Talk

Company / Employer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Topic: Electrical Safety – Listing & Labeling Requirements

# I have read and understand Toolbox Talks, topic as shown, on date indicated.

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