

## OSHA Requirements for “The Use of Power Strips” (and extension cords)

***29 CFR §1910.304(b)(2), Outlet Devices: “Outlet devices shall have an ampere rating not less than the load to be served.”***

“Power strips” (as they are most commonly referred to) “Surge/Spike Protectors” or “Portable Outlets,” typically consist of several components, such as multiple electrical receptacles, on/off power switch, circuit breaker, and a grounded flexible power cord. One nationally recognized testing laboratory, Underwriters Laboratories (UL), refers to power strips as ***Relocatable Power Taps (RPTs)*** and, in its “General Information for Electrical Equipment Directory” (sometimes called a UL white book or UL Directory), describes RPTs as a ***“relocatable multiple outlet extensions of a branch circuit to supply laboratory equipment, home workshops, home movie lighting controls, musical instrumentation, and to provide outlet receptacles for computers, audio and video equipment and other equipment.”***

Power strips may contain other electronic components intended to provide electrical noise filtering or surge protection. UL defines and lists such devices in UL 1283, *Standard for Electromagnetic Interference Filters* and UL 1449, *Transient Voltage Surge Suppressors (TVSS)*; TVSSs are dual-listed by UL and meet the requirements of UL 1363, *Relocatable Power Taps*.

OSHA’s standard at ***29 CFR §1910.304(b)(2)***, Installation and use, requires that ***“Listed or Labeled equipment shall be installed and used in accordance with any instructions included in the listing or labeling.”*** Manufacturers and nationally recognized testing laboratories determine the proper uses for power strips. For example, the UL Directory contains instructions that require UL-listed RPTs to be **directly connected to a permanently installed branch circuit receptacle; they are not to be series-connected to other RPTs or connected to extension cords.** UL, also specifies that RPTs are not intended for use at construction sites and similar locations.

Power strips are designed for use with a number of low-powered loads, such as computers, peripherals, or audio/video components. Power loads are addressed by ***29 CFR §1910.304(b)(2), Outlet Devices: “Outlet devices shall have an ampere rating not less than the load to be served.”*** Power strips **are not** designed for high power loads such as heaters, refrigerators and microwave ovens, which can easily exceed the recommended ampere ratings on many power strips. They must also meet requirements of ***§1910.305(g)(1), “Use of flexible cords and cables.”*** For example, the flexible power cord is not routed through walls, windows, ceilings, floors, or similar openings.