

MSAD 75
Safety Guidelines
Power Strip, Surge Protector, & Extension Cord Safety

Rev. 0; February 11, 2010

Background:

During a recent Safety Compliance Inspection by the Maine Department of Labor; Division of Worker Safety the district was sighted for **numerous** examples of improper use of Power Strips – Primarily “Piggy Backing” multiple power strips together creating the possibility of overloading the circuit and causing a fire. In addition to this concern people were also using extension cords in unison with a power strip which is also a violation. Every year thousands of fires result from improper use of power strips, surge protectors and extension cords.

Requirements:

OSHA Standard 26 CFR 1910.303 “Design Safety Standards for Electrical Systems (Components)” requires that electrical devices only be used in accordance with manufacturer’s guidelines and design requirements. Improper use of Power Strips can be dangerous.

Compliance:

Listed below are some safety requirements to help prevent a possible fire from starting and ensure compliance with OSHA standards and manufacturer’s guidelines:

* Use only Surge Protectors or Power Strips that have an internal tripping device. These units will trip if the power strip is overloaded or shorts out. The tripping device may be internal or integral to the on/off switch.

* Power strips[^] and extension cords are not suitable for permanent wiring installations. If permanent use is anticipated consider:

- 1) Rearranging the set up to be nearer to an existing outlet (preferred resolution – No cost to the District) or
- 2) Purchase a power strip with a supply cord of sufficient length to meet your need without the need for an extension cord (moderate cost to the District) or
- 3) Submit a WO for installation of an additional permanent outlet. (Can be costly to the District and should be done only if the other options are impracticable)

[^]Note: With the advent of multi media computer work stations power strips are acceptable for permanent use if designed for work stations used properly in accordance with manufacturers guidelines.

* If at any time the surge protector / power strip is hot to the touch remove and replace the device. The electrical load for the installation should be evaluated for possible overloading conditions (Contact Facilities)

* At no time should a Surge Protector / Power Strip be placed in a situation that will allow it to be exposed to a moist environment, excessive heat, outdoor use or used with aquariums.

* Any surge protector / power strip that has frayed wires or damaged parts should be replaced immediately.

*** Do NOT plug a Surge Protector / Power Strip into an existing Surge Protector / Power Strip. This practice is called “daisy chaining” or “piggy backing” and can lead to serious problems. Do NOT use extension cords with power strips – The additional length results in additional resistance of the assembly and can cause excessive heat and/or electrical overloading.**

* All Surge Protectors / Power Strips should be UL (Underwriters Laboratory) or ETL (Electrical Testing Laboratories) approved. (Units typically labeled 0

*** There should only be one surge protector / power strip plugged into a single duplex outlet.**

* Do not locate the Surge Protector / Power Strip in an area where the unit will be covered by carpet, furniture or any other item that will limit or prevent air circulation.

* Do not staple, tack, or tape a Surge Protector / Power Strip.

* Visually inspect all Surge Protectors / Power Strips on a regular basis to ensure that they are not damaged or show any signs of degradation. During the visual inspection, ensure that the plug is fully engaged in their respective outlets.

* When the Surge Protector / Power Strip is not in use, unplug the unit or turn off the unit power switch. (This also reduces electrical consumption and saves the District \$)

* The Surge Protector / Power Strip should always have a polarized plug with one of the blades being larger than the other or a three-prong grounded plug. Never use a three prong to two prong adaptors to power the unit.

Inspection / Adherence:

Each employee is asked, after reading the above guidance, to inspect their own work area or classroom for compliance. If you identify a problem please take the necessary steps outlined above to immediately resolve the problem. Notify your building administrator if you need assistance and/or a Work Order is necessary.

The Technology Department in concert with the Facilities Department will perform periodic inspections however; it is the employee's responsibility to comply with these Safety Guidelines at all times and to initiate any corrective actions necessary to achieve compliance.

Attached you will find photographs of four different installation within the District. Three (3) are examples of NON compliant installations (extension cords used with power strip, two (2) examples of “piggy backed” power strips) and one (1) example of a compliant installation (work station with power strip and a permanently installed outlet properly loaded).