

FORT WAINWRIGHT FIRE & EMERGENCY SERVICES

ELECTRICAL SAFETY



Did you know electrical safety hazards rank among top 5 most common write-ups during inspections? Nationally, they account for 52% of all office fires.

Contact the Fort Wainwright Fire Prevention Office for further guidance. 907-353-9134 or 9133, 9140, 9141

Fire Inspectors: Vockert, Hosier, Chapman, Bryant and Hemmings

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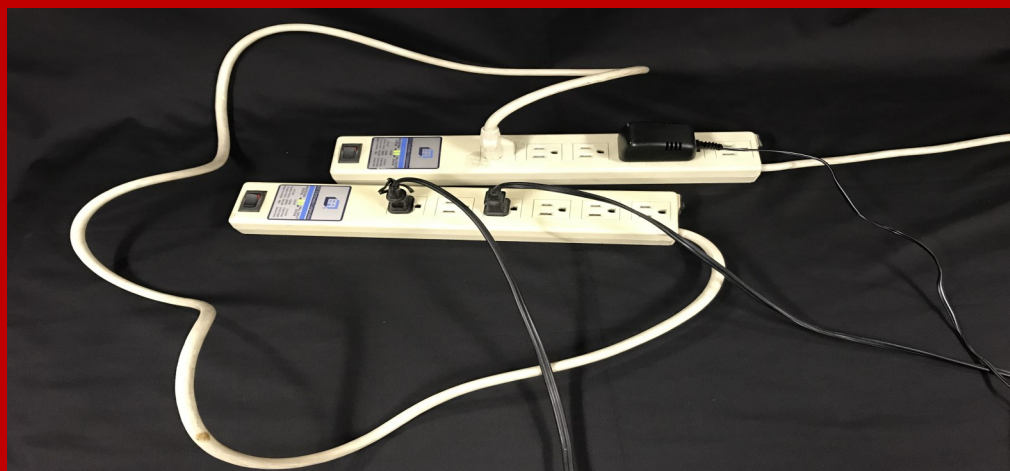
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Fire Prevention Office

1049 Chena Road Apt. 9

Fort Wainwright AK., 99703



Example of a surge-to-surge (daisy-chained) configuration

Electrical hazards are one of the **TOP 5 MOST COMMON WRITE-UPS**. During facility fire inspections we find on average 400 electrical hazards each year. This is an extremely high number and this safety handout was developed to inform supervisors, building managers and occupants on common hazards in an effort to reduce the fire risk associated with them. The most common causes of electrical fires are from improper use and overloading of extension cords, power strips, power taps, and surge protectors. Below are some common electrical hazards to look out for.

MOST COMMON ELECTRICAL HAZARDS FOUND DURING FIRE INSPECTIONS

- ◆ Extension cords being used as permanent wiring
- ◆ Heat producing appliances plugged into surge protectors (coffee pot/Keurig, microwave, space heater, hot plate)
- ◆ Surge protectors being daisy-chained/piggy-backed (surge protector plugged into another surge protector, see picture above)
- ◆ Multi-plug adapters without surge protection
- ◆ Electrical cords ran through walls, doorways, under carpet/rugs, or taped to the floor.
- ◆ Electrical wires nailed or stapled to the building surface (Christmas lights)
- ◆ Frayed or exposed wiring
- ◆ Space heaters (unattended, within 3 ft of combustible materials, or located under desks)
- ◆ Missing cover plates on receptacles, switches, and outlet boxes
- ◆ Electrical panels (3 ft clearance maintained around panel, properly labeled, and secured fire alarm breaker switch to prevent accidental use)

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ADD IT UP!

Electrical outlets and most surge protectors are rated at 15 amps (1875 watts) and can be easily overloaded.



Computer	= 2.0 amps (250 watts)
Monitor	= 1.5 amps (190 watts)
Speakers	= 0.12 amps (15 watts)
Desk lamp	= 0.32 amps (40 watts)
Scanner	= 1.2 amps (150 watts)
Printer	= 9.4 amps (1,175 watts)

TOTAL = 14.54 amps (1,820 watts)



OTHER CONSIDERATIONS

Electrical appliances and wires shall be UL, ETL, or SA listed. Electrical cords will not be spliced and users shall inspect cords frequently for signs of fraying, cracking, wearing, or damage. Ground Fault Circuit Interrupters (GFCI) are required in damp areas (i.e. bathrooms, kitchens, garages, outdoors, crawl space, etc.). When plugging in electrical devices/appliances, be sure to check the connection is secure.



Receptacle damage from a loose connection.



**Keurig/Coffee Makers use
~12.5 amps **Must be plugged directly into wall outlet****

**Microwaves use ~8-13 amps
Must be plugged directly into wall outlet**



**A 725-watt refrigerator uses 6 amps.
Must be plugged directly into wall outlet**



Power Strip vs. Surge Protector

Can you tell the difference between a power strip and a surge protector? The main difference between them is surge protectors are designed to protect devices from voltage

spikes. Conversely, power strips do not provide any type of protection and are simply an extension of your electrical receptacle. To tell the difference, you have to look at the packaging or the device itself. A true surge protector will be labeled as such, contain an indicating light and are usually rated in joules, the amount of energy it can absorb before it fails.

**Space heaters use 12.5 amps
Must be plugged directly into wall outlet, be UL listed and have tip-over protection**



Electrical appliances that do not require continuous operation will be unplugged when not in use and this check should be accomplished when running your daily closing checklist. The facility manager should always make sure their facility is in a fire-safe condition at the end of each shift/day.

This document was established as a quick reference guide and is not all inclusive. Please contact the Fire Prevention Office for assistance or if you any questions.