



Fire and Electrical Safety

In this newsletter: The cost of a fire includes the damaged work environment, personal possessions, disrupted work, and lost research and professional records. Even a small fire can be horribly disruptive for staff and faculty.

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The New Mexico State Fire Marshals are continuing to inspect UNM buildings. In the next few weeks they will complete the Medical School area, and the buildings north of Lomas. The most common problems that are being noted are housekeeping, extension cords, ceiling tiles, and electric service.

Housekeeping

Housekeeping issues are the most commonly noted citation. This includes papers, lots of papers, boxes of papers, or stacks of papers. (This may be referred to as "overstorage" or "accumulation of combustible materials".) The fire marshals look for material that would contribute significantly to a fire, making evacuation difficult.

They also look for combustible material that is stored too high. Combustible material may not be stored closer than 24 inches to the ceiling in unsprinklered rooms and closer than 18 inches in sprinklered rooms. Burning high-stacked materials cause the ceiling to be compromised more quickly and allow the fire to spread faster and hotter.

This category also includes stacks of old equipment stored in hallways, flammable solvents that should be stored in fire cabinets, excess materials on loading docks blocking exits, and overfilled trash cans.

Extension Cords

Extension cords may not be used for more than 90 days. Extension cords are not a substitute for building wiring. After 90 days, a decision should be made whether permanent wiring should be installed.

Many extension cords that have been found are cheap. They are low quality, and heat up during use, indicating that they are being overloaded.

Also, chains or strings of extension cords, and extension cord clusters or branches have been found. (These connected strings of extension cords are commonly called Daisy Chains.) It is permitted to have a surge protector connected directly into the outlet, and then connecting cords to the surge protector. It is not permitted to use a surge protector to start strings of extension cords.



Strings of extension cords and extension cords connected to extension cords or power strips are not allowed under fire codes.

Heat producing appliances such as coffee pots, microwaves, and space heaters should be plugged directly into a wall outlet. An extension cord or power strip should not be used to provide power for these type of appliances.

Space Heaters

Space heaters should have the tip over protection. If the space heater is tipped over, it should automatically turn off. Beware of economical and second hand heaters that do not have this feature.

Ceiling Tiles

Ceiling tiles are frequently damaged or removed in the course of maintenance and repair work. Sometimes they break and drop from the metal frame holding them into place. In any case, ceiling tiles are the first line of defense against fire and smoke damage. The tiles are made of non-combustible mineral fibers and a continuous ceiling helps to make

a hallway safe to use in the event of an emergency evacuation.

Holes in Wall, Floor, or Ceiling

The fire marshals want the holes to be sealed to prevent the spread of smoke and gasses throughout a building in the event of a fire. Holes and openings in the building levels allow smoke to draft through the building and create significant amounts of damage. Usually these problems are fixed by PPD.

Electric Outlets, GFCI

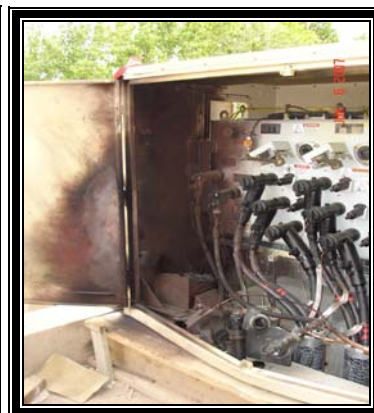
Electric outlets wear out from use and should be replaced periodically. When outlets fail they are subject to arcing and will usually not deliver full electric current to appliances. Also, electric outlets in the vicinity of water sources such as sinks and water faucets should be GFCI type. A GFCI outlet prevents an electric current from shocking someone by interrupting the circuit before the threshold current passes through a person.

Electric panels

A three foot clearance is needed in front of electric panels, for good reason. Electrical appliances and wiring is generally used until it fails. That means that circuit breakers, as they age, tend to trip and arc.

It is not a good idea to reset tripped breakers, and the Physical Plant would prefer that you don't. There are dangers. An arcing breaker can explode. The copper contacts arc and create a blast of molten copper and heat that travels at the speed of sound. It causes flash burns to the face. PPD would like to know why a breaker is tripping and do an analysis. We have had 2 electric panes on UNM property explode.

Custodial supplies, wet mops, and toilet paper should not be stored in electrical closets. The electrical closet should not be used for extra storage of old records.



These pictures show custodial supplies stored in an electrical closet, an undesirable situation. The middle picture shows an electric panel that exploded recently, here at UNM. The right picture shows an electric closet being used for storage. Staff should not have access to mechanical rooms. Machinery starts automatically, and because of service work, it is never known if the area is safe to enter.