FS/HAAF GARRISON SAFETY OFFICE

Outsmart the Darkness: Your Weekly Safety Spotlight"

Electrical Fire Prevention

Electrical malfunctions and improper use of electrical appliances are one of the leading causes of fires in the workplace. A large portion of these fires can be avoided with proper training and diligence by complying with electrical codes and best practices. Through understanding of the causes of these types of fires, employees will be safer and be able to avoid these major causes of electrical fires in the workplace.

Common Causes of Electrical Fires

Improper Use of Electrical Appliances and Circuits

- Overloaded circuits and extension cords—Plugging too many devices into a signle outlet or using extension cords not adequately rated for the current load can cause wires and cords to overheat, melt and start fires
- Use of space heaters, fans or power tools incorrectly or near flammable materials greatly increases the fire risk
    - Space heaters, large appliances, coffee pots, water kettles or any device with a large current or power requirement should be plugged directly into a wall outlet
    - If a power strip or multiplug is used in a duplex outlet (standard 2 outlet wall receptacle, the remaining outlet should not be used for other devices and especially not another multi outlet cord or splitter

Faulty or Malfunctioning Electrical Systems

- Aging infrastructure, frayed cords and defective appliances create ignition hazards leading to a fire
- GFCI outlets should be tested and inspected to ensure proper operation. When operating as intended, these devices will terminate energy to a device when a fault is detected
- Appliances and devices with a third prong for ground should not be used if the ground prong is missing or damaged
- Environmental hazards such as moisture in pools, gyms or outdoor work areas can compromise insulation in electrical wires and lead to exposed energized wiring causing electrical shock or fire

Prevention Tips

Inspection Prior to Use

- Check cords, plugs and equipment regularly for cracks, exposed wires, wear or loose connections
- Check plugs and outlets for signs of damage or wear and ensure proper operation

Electrical Basics

- Never daisy-chain extension cords or overload outlets with high-draw equipment
- Do not run cables under rugs, mats or through doors or windows where they can be damaged
- Respect Wattage limits– match devices to outlet and circuit capacity
- Report hazards to supervisor or safety office if you see sparks, flickering lights or overheated equipment

You have an electrical fire, Now What?

Extinguishing the fire safely

- If the fire is in the Incipient stage (beginning, ignition phase before it starts growing), you can attempt to extinguish. Other wise, evacuate the area and report.
- **DO NOT** use water—water conducts electricity and can cause electric shock
- Utilize a Class C fire extinguisher designed for use on electrical circuits (If energy has been shut off to the device or circuit, a Class A extinguisher can be used for ordinary combustibles)
- Shut off the power safely—If it is safe to do so, disconnect equipment or cut power at the circuit breaker box before fighting the fire
- Evacuate and Report if the fire cannot be controlled