MAFES Dawg Tracks

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Safety Tips: Avoid Electrical Accidents

Electrical shock is the leading cause of workplace fatalities. Almost every day there are reports of at least 1 electrocution, 10 disabling injuries and 100 electrical shocks.

There are 4 main electricity-related injuries. These are:

- **Electrocution** – Self- explanatory.
- **Shock –** This occurs when contact is made with a live wire or equipment that isn't grounded, allowing the current to flow through the body.
- **Electrical Burns –** This type of burn is the most serious, painful and disfiguring of all burns. They typically occur on the feet and hands where the current enters and exits the body.
- **Secondary Burns** – These usually result from a shock which throws the victim to the ground or off a ladder causing an indirect injury.

SELF PROTECTION FROM ELECTRICAL INJURY-

To reduce the risk of an electrical injury, it is important to understand and get familiar with the hazards that may exist in the work area. Some of the most common are discussed below:

- **Inadequate Wiring –** This hazard occurs when a conductor is too small to safely carry the current flowing through it. An example is a power tool used with an extension cord that isn't rated high enough to safely move the current. It can overheat and cause a fire.
- **Overloads –** The results of this potential hazard is when too many devices are plugged into a circuit, overloading it. The current overheats the wiring, possibly causing a fire. If the wire insulation melts, arcing may occur and cause a fire in the area where the overload exists and even inside a wall.
- **Ground Faults –** Electrical currents flows in a circuit. If there is a fault-opening in the circuit and this circuit isn't grounded, you can become a part of the circuit by touching a wire or holding the energized piece of equipment, like a saw or drill.
- **Overhead Power lines -** A point unfamiliar with me and most other folks is that overhead power lines are usually not insulated.
- **Live parts –** Some types of electrical equipment are "live," meaning you can come into direct contact with the current. These areas should be guarded against accidental contact. The entrances to these areas should be identified with conspicuous warning signs.
- **Inappropriate use of temporary wiring –** Temporary wiring is more susceptible to being damaged than permanent wiring due to aging or rough edges next to doors and windows, staples or other fasteners used to hold it in place, abrasion from adjacent materials, and other activities in the area. Improper use of flexible cords can cause shocks, burns or fire.

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PREVENTING SHOCKS-

- ✓ Inspect electrical equipment before using it to be sure the insulation is in good condition.
- ✓ Check the plugs to be sure that they have a good, tight connection.
- ✓ Use only wiring that is approved for outdoor use or wet areas and plug into Ground Fault Circuit Interrupters (GFCIs).
- ✓ Don't contact anything electrical with wet hands or while in a wet area. Wear rubber gloves and rubber boots for protection.
- ✓ Don't contact anything electrical with anything metal and don't wear metal jewelry or a metal hard hat around electricity.
- ✓ Don't use metal tools, including metal ladders, around electricity. Use insulated, nonconductive tools around power sources.

ELECTRICAL FIRE PREVENTION-

- In areas that have flammable liquids, vapors or combustible dust, use only electrical equipment identified and certified for safe use. Be sure the equipment doesn't spark or get hot enough to ignite the flammables.
- Don't overload outlets, circuits, or motors.
- Don't let grease, dirt or dust build up on machinery.
- Dispose promptly of oily rags, paper, sawdust, etc. Don't let them come in contact with electric lights or equipment.

ACCIDENT PREVENTYION WITH ELECTRICAL EQUIPMENT-

- Don't use electrical cords to raise or lower equipment.
- Don't fasten cords with staples, nails or anything that could damage the insulation.
- Prevent damage by untangling cords and not running them along the floor or in the aisles.
- Use extension cords only if necessary and when rated high enough for the job and use only waterproof rated cords outdoors.
- Keep machines and power tools properly lubricated.
- Don't go off "half-focused" and stick your hand into a space that might house highly energized equipment.
- Work on energized equipment only if you are trained and well qualified. OSHA defines qualified persons as those trained to identify exposed live parts, their voltage and the safety procedures to use with them.
- Lock and tag out electrical equipment before repairing or servicing it. Only qualified persons can perform lockout/tag out procedures.
- Obey restrictors on electrical circuit access. Keep out of electrical control panels and circuit breakers/fuse boxes unless authorized.

BEFORE YOU START-
BE SAFETY SMART!
SAFE TODAY ====
==== ALIVE
TOMORROW