

**TITLE: ELECTRICAL SAFETY****Document Number: *****Issue Date:**

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1 Purpose

The purpose of this document is to establish the procedures for working with hand tools and other electrical equipment.

2 Responsibilities

It is the responsibility of all employees to follow the procedures outlined below when working with hand tools. It is the responsibility of the (insert title) to ensure that electrical hazards are controlled on the jobsite.

3 Policy Content

3.1 GENERAL INFORMATION

Avoid damp and wet areas when using electrical tools.

Avoid dirt, oil and grime buildup on machinery or tools. Also, keep your general work area free of oil, dirt and grime.

Be sure to first disconnect, lockout/tagout or unplug before cleaning electrical equipment or tools. Always follow the manufacturer's maintenance instructions.

Make sure there are no obstructions limiting air circulation near the ventilation openings of electrical equipment. Obstructed air circulation can cause motors and circuits to overheat.

Check pieces of heavy electrical equipment and their enclosures for permanent grounds. If permanent grounds are not found, ground exposed parts of all fixed equipment, which could become energized.

Don't remove safety shields from electrical equipment. These are designed to protect you from accidental contact with energized parts.

3.2 POWER TOOL SAFETY

Power tools and cords should be inspected routinely. If they cause shocks, smoke, emit strange odors, spark or otherwise operate in a suspicious manner, they should be removed from service and immediately repaired or replaced.

Check for grounding. Make sure all 3-wired tools and appliances with flexible cords are properly grounded.

Be careful where you touch. Some parts of power tools are energized, even when not in operation.

Turn off power tools before unplugging; turn switches off before plugging in.

Observe tagout and lockout procedures for heavy electrical equipment.

Any piece of electrical equipment which malfunctions or behaves suspiciously should be immediately shut off at its disconnect and a red warning tag or a lock placed on the switch to prevent its use until repaired by a qualified technician.

3.3 ELECTRICAL EXTENSION CORDS

Check the amperage rating for an extension cord and make sure it is greater than, or equal to, the tool you will be using. You can determine this by comparing the rating labels on both the cord and tool you intend to use.

Routinely inspect cords for broken or frayed insulation. Immediately repair or replace unsafe cords.

Do NOT cut off ground prongs. This eliminates the protection grounded cords afford to you.

Only use extension cords on a temporary basis, never as a substitute for permanent wiring.

Always keep slack in extension cords. A taut cord can put tension on plugs and receptacles and increase the potential for connections to pull loose.

Don't run extension cords across doorways or other heavy traffic areas.

Pay attention to avoid any situation which might cut the insulation on an extension cord, exposing bare wiring or causing it to overheat.

Never unplug an extension cord by pulling on the cord. Always unplug the cord by firmly grasping its plug.

Avoid pinch points such as doors or windows. Doors and windows can be accidentally closed, cutting insulation and exposing bare wiring.

Don't staple or nail extension cords to walls.

Don't allow cords to come into contact with oil or other corrosive materials.

Before using an extension cord outside or in a wet area, confirm that the cord is rated for outdoor use and make sure the cord is connected to a Ground Fault Circuit Interrupter.

3.4 GROUND FAULT CIRCUIT INTERRUPTERS(GFCI)

One of the most important protections in the workplace are Ground Fault Circuit Interrupters. GFCIs work by detecting slight variations in current. If a short occurs, a GFCI will trip in a fraction of a second.

Ground Fault Circuit Interrupters should be installed where water is present (such as in bathrooms and kitchens), or where easy contact with the ground can be made. However, even with GFCIs, you must still exercise extreme caution around water.

Never modify or bypass a GFCI. Test GFCIs periodically to see that they are working properly. Do this by pressing the red "Test" button on each GFCI.

There are three types of GFCIs: Circuit-breaker and receptacle types, which should be installed by qualified electricians, and portable types, which do not require special knowledge to install.

Circuit breaker-type GFCIs are installed directly into an electrical panel to replace ordinary circuit breakers.

Receptacle-type GFCIs resemble ordinary electrical outlets and can be tested and reset at the outlet.

Portable GFCIs can be plugged directly into any receptacle and do not require special knowledge to install.

3.5 PREVENTING ELECTRICAL FIRES

Overloaded equipment and circuits frequently cause electrical fires. This can cause insulation to burn, create sparks, and leave exposed wires.

Prevent oil and dirt buildup on electrical appliances. This situation can cause electrical equipment to overheat and short circuit.

When buildup does occur, shut off electrical equipment and unplug its power supply. Use only clean dry rags and brushes and follow manufacturer's instructions.

Don't overload electrical equipment by attempting to do heavier jobs than the equipment was intended for.

Keep area around electrical equipment clear of combustibles such as sawdust, paper, cardboard, and flammable liquids.

Shut off all electrical equipment that produces odd sounds, odd smells or sparks. Have it checked by a qualified technician. Follow lockout/tagout procedures.

Know where the nearest fire extinguishers are and how to use them.

Know locations of emergency exits and fire escapes and know the escape routes from your work area. Fire escape plans should be posted and exits clearly marked.

4 References

None

5 Appendices

None