

Evolution Maintenance, Inc

Hand and Portable Power Tool Program

Effective Date:

Revision #:

OSHA

Reference Standard

Occupational Safety and Health Administration, Subpart P Hand and Portable Powered Tools including:

- 29 CFR 1910.242, Hand and Portable Powered Tools and Equipment, General;
- 29 CFR 1910.243, Guarding of Portable Powered Tools; and
- 29 CFR 1910.244, Other Portable Tools and Equipment.

Purpose

This procedure establishes minimum safety procedures for the selection, inspection and use of hand and portable power tools. This procedure applies to company owned and issued tools as well as employee owned tools.

Scope

This procedure applies to all company employees, contractors, vendors, and other individuals performing work on company property or visiting a work site.

Responsibilities

- Management is responsible for the development and periodic review of this program. Management is also responsible for appropriate employee training.
- Management and supervisors are responsible for enforcement of this program.
- Employees, Contractors and vendors must comply with all procedures outlined in this policy.

Definitions

Constant Pressure Switch: a mechanism that shuts off the power when the pressure is released.

GFCI (Ground Fault Circuit Interrupter): a fast-acting circuit breaker designed to shut off electric power and prevent a grounded current from establish an alternative path through an individual. The breaker compares the amount current going and coming from the equipment and circuit conductors. If the amounts going and coming are different, the breaker interrupts the current.

Lock mechanism: a mechanism that bypasses constant pressure controls enabling a tool to continue operation even when pressure is released.

Operator: person operating a power tool or an individual assisting a person operating a power tool.

Power Tools: tools with electric, explosive, hydraulic or pneumatic power sources.

PPE: personal protective equipment as defined by 29 CFR 1910 Subpart I, including clothing, helmets, goggles, and other garments or equipment designed to protect the body from injury, impact, and other job-related hazards.

Procedure

Prevention and Safety

- Operators must be trained and authorized to operate power tools;

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- Operators must refrain from using power tools in an explosive or flammable environment;
- Operators must inspect and test all tools and their parts (including guards and safety mechanisms) before operation;
- Operators must avoid using equipment that has been damaged or modified in transit, storage, or otherwise;
- Operators must be satisfied, after inspection of the tool, that the tool is clean, that all moving parts will operate as designed, and that the tool is free of obstructions;
- Operators must inspect the work area for hazards before igniting or operating a power tool;
- Operators must take precautions to protect others from power tool usage hazards such as:
 - Using Caution Tape, Traffic Cones or other barricades to isolate the area;
 - Posting warning signs;
 - Erecting temporary barriers;
 - Holding pre-job conferences with personnel in the work area; and
 - Scheduling work for hours when others are not present in the work area.
- Operators must only use approved tools. To be OSHA approved, power tools must:
 - Be equipped with ignition and activation mechanisms that require manual and intentional operation;
 - Be equipped with a dual ignition mechanism, if applicable (consult OSHA regulations for details and exceptions);
 - Be equipped with guards to protect the operator against accidental contact with the tool;
 - Be equipped with guards to prevent ejection of the tool, of its parts or of debris during operation;
 - Be equipped with guards that automatically and instantly cover the tool when the tool is not in use, if applicable (consult OSHA regulations for detailed guard information on specific tools);
 - Be equipped with guards that must be set in place before operators can activate the tool, if applicable (consult OSHA regulations for detailed guard information on specific tools);
 - Be equipped with a constant pressure switch or a shutoff mechanism that deactivates the tool or automatically and instantly sets guards to cover the tool when the tool seems to not be performing its intended work;
 - Be designed so the location of the ignition and operation controls minimizes the possibility of accidental operation;
 - Be designed to allow for an easy examination of the tool to determine the presence of foreign objects (or matter) on the tool;
 - Be designed to allow for an easy examination of the tool and to determine the existence of damaged or otherwise altered tool components;
 - Be designed to display prominently and permanently any warnings or instructions operators must follow to ensure the safe ignition, operation, and deactivation of the tool; and
 - Be designed, if applicable, to allow operators to select the appropriate power level to accomplish the desired work without applying excessive force.

For convenience, some tools may operate with a lock mechanism to prevent an automatic shutoff, provided that such mechanism can be deactivated by a single motion of the finger(s) that turned it on. Consult OSHA regulations for detailed information on allowed lock mechanisms.

Training

- Operators must receive training before being assigned to jobs requiring the use of power tools;
- Operators must receive training when new or different tools are introduced into the facility;
- Operators must receive training when procedures for operating existing tools change;
- Operators and repair personnel must have access to instruction manuals; and
- Power tool owners must maintain updated instruction manuals for power tools.

Power Tool Operation

- All operators and assistants must wear PPE while using tools as required by working conditions.
- Operators must not load power tools far in advance. Operators should load power tools immediately before use.
- Operators must select the appropriate power level for the desired work. Operators must not use excessive force on very hard or brittle materials.
- Operators must install on the tools the guards and safety equipment recommended by the manufacturer.
- Operators must consider body placement when handling a tool. Operators must:
 - Never use hands or other body parts to support a work piece;
 - Keep body parts out of the path of the power tool and the debris created while operating the tool; or
 - Avoid using force that may cause them to fall or lose balance while operating the tool.
- When a tool becomes defective during use, the operator must cease to use it immediately, must follow the manufacturer's instructions to unload the tool, and must discontinue its use until the tool is satisfactorily repaired.

Specific Tool Requirements

- When using electric tools, operators must:
 - Keep cords out of aisles and traffic areas where they could be damaged by traffic and/or cause pedestrians to trip;
 - Keep cords away from heat sources and equipment that could cause mechanical damage;
 - Make sure the tool is plugged into a GFCI receptacle or extension cord equipped with a GFCI;
 - Make sure that their hands, the tools, and all cords are dry and kept away from wet environments; and
 - Make sure that cords are rated for the same amperage as the tool.
- When using pneumatic tools, operators must:
 - Be sure to use compressed air to power the tools instead of oxygen, nitrogen or other gasses;
 - Be sure that compressed air fittings are different and easily distinguished from other gas fittings available in the facility to prevent mistaking another gas for compressed air; and
 - Never direct compressed air to other chemicals (compressed air can act as an oxidizer and increase the burning rate of combustible and flammable liquids).
- When using internal combustion tools, operators must:
 - Operate the tool in areas with adequate ventilation;
 - Shut off and allow motors or engines to cool down prior to refueling; and

- Store fuel in approved containers in a secure location, away from ignition sources or hazards that may trigger spills.
- When using a tools with a chuck, operators must:
 - Make sure the chuck is tight prior to use; and
 - Remove the chuck key from the chuck prior to use.
- When using a jack, operators must follow the specific instructions set out by OSHA regarding the usage of jacks. These instructions address the rating of the tool, the load worked on, and the prevention of slippage. Please consult OSHA regulations for detailed information. (see 29 CFR 1910.244(a))

Maintenance, Storage, and Repairs

- Operators must inspect repaired tools at regular intervals.
- Operators must store power tools in a location that protects the tools and their components from damage and other hazards.
- Operators must store power tools in a location that prevents theft or unauthorized personnel from gaining easy access to the tools.
- Operators may use compressed air for cleaning only if reduced to less than 30 psi and only while using effective guards and PPE.
- Authorized personnel must repair tools according to the manufacturer's specifications.

Prohibited Practices

- Never leave a loaded tool unattended, particularly in areas where it may be stolen or become accessible to unauthorized personnel.
- Never point or aim a tool toward another person.
- Never remove company tools from a worksite or from storage without proper authorization.
- Never modify or alter company tools without proper authorization.

Revision History Record:

Revision Number	Section	Revised By	Description
0	NA	NA	Original document.