



APPENDIX F. HAND TOOLS & POWER TOOLS SAFETY POLICY

Purpose

The purpose of this Program is to provide VSC Fire & Security, Inc. (hereinafter VSC) employees with information on the safe use of hand and power tools.

VSC owned tools & equipment are never to be loaned out to other trades or contractors.

Training

All affected employees who are required to use hand and power tools will be trained by a competent person and will demonstrate the ability to use the tool properly *before* being allowed to perform work requiring its use.

Recordkeeping

VSC's Risk Management & Safety Department (hereinafter "Risk-Safety") will maintain training records of all employees who have been trained on this safety program. Information Recorded: employee name, training topic with course content, date of training, certification (where applicable), and date of future training to maintain certification.

Hand Tools

When you are using hand tools, such as hammers, chisels, wrenches, and other non-hand powered tools, there are individual safe practices that apply to each tool. References on hand tools and manufacturer publications provide directions for safe use of the specific tool. Below are some general user and safety practices that you should be aware of, regardless of whether the tool is supplied by VSC or the employee:

- Select the right tool for the job. Every hand tool has a specific purpose, so proper selection will prevent misuse and injury.
- Wear appropriate PPE as indicated in the manufacturer's "Operator's Manual", or as described in [Appendix A, "Personal Protection Equipment \(PPE\) Safety Policy"](#) of the VSC Health & Safety Program.
- Do not wear jewelry that can become entangled in any part of the tool.
- Know the hazards of the tool. For example: the tip of a screwdriver is hardened, and when it is used for chiseling or prying, it can fragment easily.
- Tools will not be modified in any way without the manufacturer's written approval. This includes "cheater bars" used on pipe wrenches.
- Use tools correctly. Always wear eye protection when using any manual tool. Leather or Kevlar work gloves may also be appropriate to avoid injuries to the hands, including blisters, or lacerations and puncture wounds.
- Keep tools in good repair through proper maintenance. Inspect tools regularly to be sure that they are in good condition. If the tool is damaged it must be tagged to render it inoperable and be taken "out of service" immediately. Repair or discard broken, worn, or damaged tools before attempting to use them as they can cause injury. For example, broken handles on hammers may cause the head to fly off and hit someone.
- The user is responsible to inspect all Tools & Equipment prior to each use!

Employee Personal Tool Policy

Use of employee personal hand tools is on a voluntary basis. All usage must comply with this "Personal Tool Policy". Employees who bring personal tools to the workplace must sign an acknowledgement agreeing to abide by the terms stated in this "Personal Tool Policy".

- Only tools included in the [Permitted Personal Hand Tools](#) table below are permitted.
- Tools not permitted per the table below are to be provided by VSC.
- VSC is not responsible for reimbursement or replacement of damaged or stolen personal tools. This includes when tools are used to perform job tasks by the employee who owns the tool, when used by

a co-worker, or when stored in company vehicles, at job sites, or on VSC property.

It is the responsibility of employee that all personal hand tools comply with the following safety requirements:

- Tools will be inspected daily, by the user, prior to use to ensure no defects, unsafe conditions or modifications exist.
- VSC Foreman and Supervisory staff are required to inspect employee personal hand tools according to the same guidelines followed for tools provided by VSC.
- All tools must be maintained in a safe condition.
- All tools are to be used according to the manufacturers' guidelines.
- Tools must be used with all safety features intact as provided by the manufacturer. This includes, but is not limited to, shields, guards, attachments, designed to protect the user from injury or harm.
- No unauthorized modifications are permitted. This includes attachments, cheater bars or other changes to the tool expressly prohibited by the manufacturer.
- When a tool develops a defect or breaks during use, the user must immediately cease use of the tool until it is properly repaired for continual safe use.
- Damaged or defective tools will be tagged "out of service" and immediately removed from the workplace – NO EXCEPTIONS.
- Damaged tools will be repaired only in accordance with the manufacturer's specifications.
- If a tool cannot be repaired for continued safe use, it is the responsibility of the employee that owns the tool to ensure that the tool is properly disposed of away from the job site and VSC company property.

Permitted Personal Hand Tools:

Tool	Type/Style
<i>Wrench</i>	<i>Crescent</i>
<i>Socket</i>	<i>Socket Wrench & Sockets</i>
<i>Screwdriver</i>	<i>Standard Phillip or Flat</i>
<i>Drills & Sockets</i>	<i>Battery or power operated drills</i>
<i>Handheld Punch & Handle</i>	
<i>Hammer</i>	
<i>Knife</i>	<i>Utility or pocket with retractable locking blade feature.</i>
<i>Pliers</i>	
<i>Wire Cutters</i>	

Portable Power and Battery-Operated Tools

Users of portable power tools are required to be properly trained to ensure their safety. Users need to understand the hazards of the tool, how it operates, and the power supply. Users need to know what protection is built in, how to protect themselves from hazards during use, and how to maintain the tools. In addition, users are to follow these general guidelines:

- Wear appropriate PPE as indicated in the manufacturer's "Operator's Manual", or as described in Appendix A, "*Personal Protection Equipment (PPE) Safety Policy*".
- Eye and hand protection should always be worn when operating power tools. However, gloves are not to be worn when using power tools with rotating parts as the glove and hand can be pulled into the tool causing injury.
- Never use any tool without inspecting it before use.
- Tools will not be modified in any way without the manufacturer's written approval.
- Check tool battery for corrosion / leaks and damage.
- Properly store batteries away from chemicals and direct sunlight.
- When charging battery do not place charger near flammable chemicals, in areas where it can be stuck by equipment, foot traffic or become a trip hazard.
- Only use impact rated socket in drills when installing couplings.

Portable power tools are divided into five primary groups according to the power source or type:

1. Electric.

2. Pneumatic.
3. Gasoline.
4. Powder Actuated.
5. Abrasive Wheel Machinery.

Electric Tools

Electric tools are the most common type of powered tool and include such tools as drills and power saws. The chief hazard from electrically powered tools is electric shock. To reduce the chance of shock, several safety features are included in many electric power tools:

- Double insulated tools provide more reliable shock protection without third-wire grounding. Conventional electric tools have a single layer of functional insulation and are metal encased. Double insulation can be provided by encasing the entire tool (or at least part of the tool that is handled) in a nonconductive material such as plastic, which is also shatterproof. Never use a tool that has a constant run lock. You must have a pressure release switch that shuts the tool off as soon as you release the trigger. Trigger locks are NOT allowed on electric tools.
- VSC follows a Ground Fault Circuit Interrupters (GFCI) program, NOT an assured grounding program.
- Grounding of portable electric tools and the use of GFCI provides the most convenient way of safeguarding the operator. If there is any defect or short circuit inside the tool, the current is drained from the metal frame through a ground wire and does not pass through the operator's body. When a GFCI is used the current is shut off before a serious shock can occur. Remember, a GFCI power cord should be used with electric tools and connected at a GFCI source of power whenever possible. However, the third-wire ground of the tool will not totally protect the operator from shock.
- Tools will not be modified in any way without the manufacturer's written approval.
- Inspect the tool's electrical cord for cuts or any damage.
- Damaged cords are to be severed from the tool, the tool is to be labeled "out of service" and returned to the shop for repair.
- Only a qualified authorized electrician or manufacture is allowed to repair internal components or perform any service requiring the disassembly of electrical tools and equipment.
- Repairs to cords and electrical plugs must be done as per manufactures specification and without the use of electrical tape on cords.

Pipe Threader / Power Machines

- Only trained authorized employees are allowed to operate 300 & 500 power machines. Training on power machine must be done under direct supervisions by a qualified person.
- Power Machines must be inspected for damage or defects prior to transporting to the job site.
- Foot pedal must have guard and non-slip foot pad.
- Oil catch basin must be place beneath machine and emptied daily. Do not allow basin to overflow.
- Properly dispose of used threader oil.
- Clean up debris from around machine as job progresses. Do not allow trip hazards of cut pieces of pipe to accumulate on the floor.
- Repairs to machine must comply with procedures described in "Electrical Tools" section of this policy.
- When manually carrying power machine onto job site ask for help, use material handling equipment, or use the machine dolly attachment (see figure below)



Use equipment dolly to prevent back injury when transporting power machine.

Pneumatic Tools

Pneumatic tools are powered by compressed air at pressures of up to 90 psi. Pneumatic impact tools have four major hazards:

- The hazard from flying concrete, wood chips, or nails. Operators and others in the vicinity should wear safety glasses.
- The hazard from pointing a nail gun at yourself or another person which can result in serious injury or death.
- The hazard of elevated noise levels from pneumatic tools. These noise levels should be evaluated to determine if hearing protection is required. OSHA dictates that at 85 decibels, hearing protection should be offered to the employee, and at 90 decibels hearing protection is mandatory.
- The hazard from hose separation at the connecting point of the tool to the source of the pneumatic pressure may result in serious injury. All hoses must be secured by pinning or use of a hose gag.

Tools will not be modified in any way without the manufacturer's written approval.

Gasoline Powered Tools

- Employees may use gasoline-powered tools.
- Operators of gasoline power tools must be trained in their proper use according to the manufacturer's instructions.
- Operators shall be familiar with fuel hazards, as well as other hazards associated with the tool.
- All tools of this nature will be inspected before each use and have an annual inspection performed and documented by a competent person.
- Each inspected and approved tool will be either color coded by the inspector or have an inspection device attached to the tool.

Powder Actuated Tools

- Only employees who have been trained in the operation of the powder-actuated tool in use are allowed to operate a powder-actuated tool. Training must be by a qualified trainer authorized by VSC Risk-Safety. ***If you do not have a valid certificate of training, you are NOT permitted to operate a powder-actuated tool!***
- Powder-actuated tools will be issued only to employees who have a current license for the specified tool.
- Powder-actuated tools will be tested prior to use to ensure that all safety devices and guards are functioning properly.
- The fastener shall not be loaded until ready for the shot.
- The tool shall not be left unattended.
- NEVER point either an empty or loaded tool at any person.
- Keep both hands and feet clear of the open-end of the barrel.
- When a misfire occurs, the operator shall hold the tool firmly against the work surface for a period of 30 seconds and then follow the manufacturer's instructions.
- Personnel, other than the operator of the tool, must stay clear of the area where the tool is being used.
- A sign measuring at least 8x10 inches, using boldface type no less than 1" in height shall be posted within 50 feet of the area where the tool is being operated. The following wording must be legible on the sign:
CAUTION POWDER ACTUATED TOOL IN USE!
- Powder-actuated tools shall be tagged and removed from service if any of the following defects are present:
 - Tool has visible signs of worn or damaged parts.
 - Tool has missing or malfunctioning parts or accessories.
 - The operator's instruction manual is missing.
 - The power load and fastener chart are missing.
 - Tool misfires more than one time during use.

Abrasive Wheel Machinery

Abrasive wheels shall be used only on machines provided with safety guards as defined below:

- The safety guard shall be mounted so as to maintain proper alignment with the wheel, and the strength of the fastenings shall exceed the strength of the guard.

- Grinding machines shall be equipped with flanges.
- Abrasive wheel machinery guards shall meet the design specifications of the American National Standard Safety Code for the Use, Care and Protection of Abrasive Wheels, ANSI B7.1-1970, which is incorporated by reference as specified in Sec. 1910.6.

General Hand Tool/Power Tool Guidelines

- Always wear the PPE required for the job.
- Do not wear loose fitting gloves when working with tools that have rotating or moving parts as the gloves can be pulled into the machinery resulting in injury.
- When appropriate to wear gloves, wear Kevlar or class II cut resistant glove.
- Always wear eye protection. Choose either safety glasses, goggles and/or face shields in accordance with the tool manufacturer's recommendations.
- All guards shall be in place before operating the tool! When power operated tools are designed to accommodate guards, they shall be equipped with such guards. Employees will not modify or alter the guards in anyway.
- Avoid loose-fitting clothes and jewelry that might become entangled in the work.
- Select the right tool for the job. Do not use tools that are not intended for the job.
 - For example, do not use a slot screwdriver as a chisel, pry bar, or wedge; do not use a wedge, punch, or wrench as a hammer; do not use an improperly sized or type of screwdriver for the type of screw head involved.
- Use tools designed to allow your wrist to stay straight. Avoid using tools with your wrist bent.
- Tools designed with two handles must be held with both hands.
 - For example, never attempt to operate a portable band saw with one hand while holding the item being cut with the other hand.
- Keep tools in good condition. Keep them clean, dry and stored properly after each use.
- Prior to each use, inspect tools for defects! Replace or repair defective tools.
 - For example, screwdriver points should not be badly worn, and the handles should be in good condition; Replace cracked, splintered, or broken handles on files, hammers, and screwdrivers; Handles of tools such as hammers, and axes should fit tightly into the head of the tool.
- Keep cutting tools sharp and cover sharp edges with suitable coverings to protect the tool and prevent injuries from unintended contact.
- Tools subject to impact and striking (example: chisels, star drill, punches) will “mushroom” (the head opposite the point becomes deformed overtime from striking it) and burr. This deformed end can chip or shatter sending sharp metal fragments airborne causing injury to the user or others in the area.
- Keep the pointed end of the tool ground, dressed, and sharpened to avoid this risk of injury.
- Core saws and drills used on concrete surfaces must comply with **VSC Appendix V Crystalline Silica Control Policy.**

