

1.1 PURPOSE

- 1.1.1 The purpose of the policy is to establish and maintain a program for TERRY R PITT CONSTRUCTION to ensure that the hazards associated with using hand and portable powered tools are recognized and the necessary safeguards, education, and PPE are provided for the protection of the worker.

1.2 GENERAL

- 1.2.1 All manufacturer safety practices must be employed while using tools. Employees must read, know, and understand all safeguards prior to using equipment. If workers do not understand safe operation of a piece of equipment, they should notify the safety department to obtain clarification.
- 1.2.2 All required PPE must be worn at all times when using equipment.
- 1.2.3 Do not wear loose clothes, ties, jewelry, or gloves that could get caught in the machinery. Keep body parts and clothes away from the point of operation.
- 1.2.4 All tools and equipment will be visually inspected prior to use and all safety devices will be installed and properly adjusted.
- 1.2.5 Tools will not be used beyond the design capacity intended by the manufacturer where such use may create a hazard to a person or persons.
- 1.2.6 Tools identified as unsafe will have controls locked or tagged to render them inoperable or will physically be removed from the place of operation.
- 1.2.7 Iron or steel hand tools may produce sparks that can be an ignition source around flammable substances. Spark-resistant tools made of non-ferrous materials should be used where flammable gases, highly volatile liquids, and other explosive substances are stored or used.

1.3 HAND TOOLS

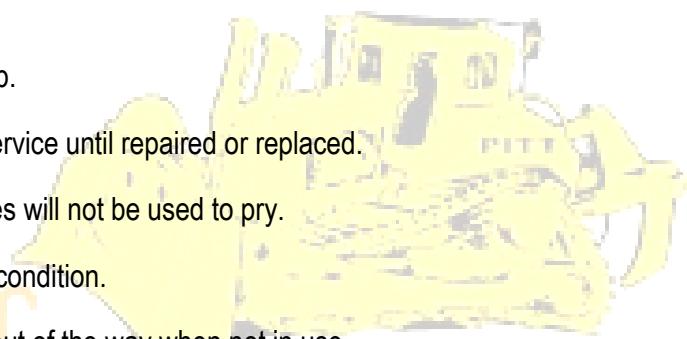
- 1.3.1 Hand tools must be inspected on a regular schedule. Inspect each tool prior to each use.
- 1.3.2 Do not use tools with loose or splintered handles.
- 1.3.3 Do not tape cracked or split handles.
- 1.3.4 Use the right tools for the job (ex. using a screwdriver for a chisel).
- 1.3.5 Do not alter tools without supervisor permission. All alterations must meet the standard.
- 1.3.6 Hand tools cannot be used as a hammer.
- 1.3.7 Tag and remove from the work area any tool that does not meet the requirements.
- 1.3.8 Tools will be maintained in a safe condition whether provided by TERRY R PITT CONSTRUCTION or

the employee.

- 1.3.9 All hand tools such as chisels, punches, etc. that develop *mushroomed* heads must be taken out of service and reconditioned.
- 1.3.10 Handles on hammers, axes, and similar equipment that are cracked or fractured should be replaced prior to use. Care should be taken to ensure the head is properly and securely attached.
- 1.3.11 Wrenches whose handles are bent or whose gripping surfaces are worn should be replaced.
- 1.3.12 Screwdrivers that are bent or whose ends are chipped should be replaced.
- 1.3.13 Tools should be stored in a secure, dry location where they will not be tampered with.
- 1.3.14 Tools should be stored in such a way that sharp edges do not present a danger when reaching into tool cribs and storage areas.
- 1.3.15 Tool cutting edges should be sharp so the tool will move smoothly and not bind.
- 1.3.16 All handles should be free of burs and splinters and should be firmly attached to the working head of the tool.
- 1.3.17 The proper tool will be used for each job.
- 1.3.18 Damaged tools will be removed from service until repaired or replaced.
- 1.3.19 Files will be equipped with handles. Files will not be used to pry.
- 1.3.20 Hand tools will be kept in safe working condition.
- 1.3.21 Hand tools will be properly stored and out of the way when not in use.
- 1.3.22 Non-insulated, conductive tools will not be used in or around live electrical wiring.
- 1.3.23 Tools with mushroom heads will not be used.
- 1.3.24 Screwdrivers will not be used as chisels or pry bars.
- 1.3.25 Valve wrenches will not be left protruding into walkways or work areas.
- 1.3.26 The wooden handles of tools will be kept free of splinters or cracks and will be kept tight in the tool. If the wooden handle becomes cracked or damaged it must be replaced with a new handle. Homemade handles will not be used.
- 1.3.27 Knives will not be used as screwdrivers or pry tools. Knives will be of the self-locking or straight blade type.

Terry F.

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CONSTRUCTION INC.



1.4 PORTABLE POWER OPERATED/ELECTRIC TOOLS

- 1.4.1 All grinders, saws and similar equipment must be fitted with appropriate machine guarding as specified by the manufacturer.
- 1.4.2 The adjustable tongue on the topside of the grinder must be properly guarded to prevent physical contact by the operator.
- 1.4.3 All corded electrically operated tools and equipment must be effectively grounded by either a grounding prong or an approved double-insulated case. Inspect all prongs to ensure they are not bent or otherwise damaged and all cases to ensure they are not cracked or damaged.
- 1.4.4 All electric cords must be in good condition; free of frays or other physical defects.
- 1.4.5 Portable electric tools must be grounded and inspected before use, including the power cord and plug. The electric cord must not have insulation showing at the plug or at the tools. There should be no cuts or breaks in the cord or electric tape to cover up bad insulation.
- 1.4.6 To protect users from shock and burns, electric tools must have a 3-wire cord with a ground and be plugged into a grounded receptacle, be double insulated, or be powered by a low voltage isolation transformer.
- 1.4.7 The grounding prong must never be removed from the plug.
- 1.4.8 Employees who use electric tools in construction areas or in wet areas must be protected by ground fault circuit interrupters.
- 1.4.9 Portable electric tools will not be lowered, lifted, or carried by their cords.
- 1.4.10 Never yank the cord to disconnect it from a receptacle.
- 1.4.11 Keep cords away from heat, oil, and sharp edges.
- 1.4.12 The power cord on portable tools will always be unplugged before changing parts.
- 1.4.13 Disconnect tools when not in use, before servicing, and when changing accessories such as blades, bits, and cutters.
- 1.4.14 Face shields will be worn when using portable grinders and cut-off saws.
- 1.4.15 Handheld power tools will be equipped with controls that require constant finger pressure to operate the tool. Positive trigger locks on handheld power tools are not permitted and, if equipped, must be removed.
- 1.4.16 Remove tool from air impact wrench before bleeding down hose.
- 1.4.17 All fuel-powered tools will be stopped and allowed to cool before refueling or servicing.
- 1.4.18 Tool safety clips or retainers will be securely installed and maintained on pneumatic and electric impact tools.

1.5 ABRASIVE WHEEL EQUIPMENT

- 1.5.1 The work rest will be within an inch of the wheel.
- 1.5.2 The adjustable tongue on the topside of grinder must be within ¼ inch of the wheel.
- 1.5.3 The grinder should be mounted in such a way that it is secure and will not shift or tip.
- 1.5.4 *ON/OFF* control switches should be clearly marked in red and readily accessible to the operator for easy deactivation of equipment in case of emergency.
- 1.5.5 The maximum RPM rating of the grinder should be clearly posted and the maximum rating of the wheel should not exceed the grinder rating.
- 1.5.6 Grinding wheels should not be cracked or otherwise damaged.
- 1.5.7 Grinders that use a coolant must be equipped with splashguards to prevent coolant from coming into contact with the operator.

1.6 PNEUMATIC AND POWDER ACTUATED TOOLS

- 1.6.1 Powder actuated tools should be stored in their own locked container when not being used.
- 1.6.2 All powder actuated tools will be left unloaded until they are actually used.
- 1.6.3 Only trained and authorized employees will use powder actuated tools. Only employees who have been trained in the safe operation of the particular tool in use will be permitted to operate a powder actuated tool.
- 1.6.4 The user must select a powder level, high or low velocity, that is appropriate for the powder actuated tool and necessary to do the work without excessive force.
- 1.6.5 The powder actuated tools will be inspected and tested before each use prior to loading to determine that they are clean, that all moving parts operate freely and are properly lubricated, that the barrel is free from obstructions, and that the safety devices are in proper working condition.
- 1.6.6 All powder actuated tools will be used with correct shield, guard, or attachment recommended by the manufacturer.
- 1.6.7 The muzzle end of the tool must have a protective shield or guard centered perpendicular to and concentric with the barrel to confine any fragments or particles that are projected when the tool is fired. A tool containing a high-velocity load must be designed not to fire unless it has this kind of safety device.
- 1.6.8 To prevent the tool from firing accidentally, two separate motions are required for firing. The first motion is to bring the tool into the firing position, and the second motion is to pull the trigger.

Hand and Power Tools

- 1.6.9 Any powder actuated tool that is not in proper working order or that develops a defect during use will be immediately removed from service and not used until properly repaired in accordance with the manufacturer's specifications.
- 1.6.10 Do not use a tool in an explosive or flammable atmosphere.
- 1.6.11 Inspect the tool before using it to determine that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions and has the proper shield, guard, and attachments recommended by the manufacturer.
- 1.6.12 Do not load the tool unless it is to be used immediately.
- 1.6.13 Do not leave a loaded tool unattended.
- 1.6.14 Keep hands clear of the barrel end.
- 1.6.15 Never point the tool at anyone.
- 1.6.16 Powder actuated tools will not be loaded until just prior to the intended firing time.
- 1.6.17 Powder actuated tools will not be pointed at any employee whether loaded or unloaded.
- 1.6.18 Hands will be kept clear of the open barrel end.
- 1.6.19 Powder actuated tools will not be used in an explosive or flammable atmosphere.
- 1.6.20 In case of a misfire, workers will use the correct method for a specific powder actuated tool to remove the misfire.
- 1.6.21 Powder actuated tool cabinets will be kept free of loose loads and other debris.
- 1.6.22 When using powder actuated tools to apply fasteners, additional procedures must be followed:
 - 1.6.22.1 Do not fire fasteners into material that allows fasteners to pass through to other side.
 - 1.6.22.2 Do not drive fasteners into very hard or brittle material that might chip or splatter or make the fasteners ricochet.
 - 1.6.22.3 Always use an alignment guide when shooting fasteners into existing holes.
 - 1.6.22.4 When using a high velocity tool, do not drive fasteners more than 3 inches from an unsupported edge or corner of material such as brick or concrete.
 - 1.6.22.5 When using a high velocity tool, do not place fasteners in steel any closer than ½ inch from an unsupported corner edge unless a special guard, fixture, or jig is used.
- 1.6.23 Fasteners used in powder actuated tools will be only those specifically manufactured for that use.
- 1.6.24 Fasteners will not be driven into spalled areas, very hard or brittle materials, or easily penetrated materials.

- 1.6.25 Pneumatic or nitrogen powered tools must be checked to see that the tools are fastened securely to the hose to prevent them from becoming disconnected. A short wire or positive locking device attaching the air hose to the tool must also be used and will serve as an added safeguard.
- 1.6.26 When using air-operated tools, make certain that the supply pressure does not exceed the working pressure of the tool.
- 1.6.27 All abrasive blast equipment will be equipped with *deadman* controls.
- 1.6.28 Air hose and connections used for air tools will be designed for the service for which they are used. All connections that require safety pins will be in place prior to turning on the air pressure.
- 1.6.29 Only heavy-duty impact-type sockets will be used on powered impact wrenches.
- 1.6.30 When compressed air is used for parts cleaning purpose, the nozzle pressure will be reduced to 30 psi.
- 1.6.31 Do not use air hoses for hoisting or lowering tools.
- 1.6.32 Do not use compressed air for cleaning clothes or part of the body.
- 1.6.33 When using pneumatic tools, a safety clip or retainer must be installed to prevent attachments such as chisels on a chipping hammer from being ejected during tool operation.
- 1.6.34 Pneumatic tools that shoot nails, rivets, staples, or similar fasteners and that operate at pressures more than 100 psi must be equipped with a special device to keep fasteners from being ejected, unless the muzzle is pressed against the work surface.
- 1.6.35 Eye protection is required, and head and face protection is recommended for employees working with pneumatic tools.
- 1.6.36 Screens must also be set up to protect nearby workers from being struck by flying fragments around chippers, riveting guns, staplers, or air drills.

1.7 HYDRAULIC POWER TOOLS

- 1.7.1 The fluid used in hydraulic power tools must be an approved fire resistant fluid and must retain its operating characteristics at the most extreme temperatures to which it will be exposed.
- 1.7.2 The manufacturer's recommended safe operating pressure for hoses, valves, pipes, filters, and other fittings must not be exceeded.
- 1.7.3 All jacks, including lever and ratchet jacks, screw jacks and hydraulic jacks, must have a stop indicator and the stop limit must not be exceeded. Also, the manufacturer's load limit must be permanently marked in a prominent place on the jack and the load limit must not be exceeded.
- 1.7.4 A jack should never be used to support a lifted load. Once the load has been lifted, it must immediately be blocked up. Put a block under the base of the jack when the foundation is not firm

and place a block between the jack cap and load if the cap might slip. To set up a jack, make certain of the following:

- 1.7.4.1 The base of the jack rests on a firm, level surface
- 1.7.4.2 The jack is correctly centered
- 1.7.4.3 The jack head bears against a level surface
- 1.7.4.4 The lift force is applied evenly
- 1.7.5 All jacks must be lubricated regularly. In addition, each jack must be inspected according to the following schedule:
 - 1.7.5.1 For jacks used continuously or intermittently at one site, inspect at least once every 6 months.
 - 1.7.5.2 For jacks sent out of the shop for special work, inspect when sent out and inspect when returned.
 - 1.7.5.3 For jacks subjected to abnormal loads or shock, inspect before use and immediately thereafter.

1.8 EQUIPMENT GUARDING

- 1.8.1 Machine guards, as appropriate, must be provided to protect the operator and others from the point of operation, in-running nip points, rotating parts, and flying chips and sparks.
- 1.8.2 Machine guards will be clean, secure, and so arranged so they do not offer a hazard in their use.
- 1.8.3 All moving chains, gears, pulleys, etc. will be properly guarded.
- 1.8.4 Guards must be installed on all tools that require a guard. All hand and portable power tools that are designed to accommodate guards must be equipped with guards when in use. Guards cannot be manipulated in such a way that will compromise protection in which was intended. Guarding will meet ANSI B15.1 standard.
- 1.8.5 Handheld power tools **MUST** be equipped with a switch that is manually held in the on position and power is shut off when the switch is released.
- 1.8.6 Emergency *STOP* buttons will be colored red and easily accessible to operator in an emergency.
- 1.8.7 All non-current-carrying metal parts of electric equipment will be properly grounded.
- 1.8.8 Sufficient clearance must be maintained around equipment to ensure safe operation, maintenance, and waste removal.
- 1.8.9 Guards will be substantially secured in place.

1.8.10 Portable powered tools will not be placed in service until all guards are in place and checked to ensure that they are secured.

1.8.11 Portable powered tools will be shut down and de-energized before any guards are removed.

1.9 MACHINE TOOLS

1.9.1 Machine tools will be guarded in accordance with the American National Standards Institute guidelines for the specific machine.

1.9.2 Machine tools will not be left running unattended.

1.9.3 Manual adjustment and gauging of work will not be done while the machine is running.

1.9.4 Hands will not be used for removing chips and shavings from machinery.

1.9.5 Material on a drill press will be securely clamped.

1.9.6 Cutting tools, drills, chuck keys, wrenches, etc., should be removed from the machine after the work is completed.

1.9.7 A *push stick* will be used when pushing short boards through table saws.

1.9.8 Pipe threaders will be equipped with a momentary contact, guarded, foot switch.

1.10 BENCH GRINDERS

1.10.1 Bench grinders, when equipped with an abrasive wheel, will be equipped with a work rest adjusted to within $\frac{1}{8}$ " of the wheel and a tongue guard adjusted to within $\frac{1}{4}$ " of the wheel.

1.10.2 Rags will not be used to hold objects while grinding or buffing.

1.10.3 Vice grip pliers or other suitable means will be used to hold small objects on grinders when hands are in close proximity to the grinding wheel.

1.10.4 Only one person will use a grinder at any one time.

1.10.5 Grinding wheels will be inspected for cracks or other defects prior to installation and use.

1.10.6 A ring test should be conducted.

1.10.7 Signs reading *Face Shield Required* are to be posted in plain view of pedestal bench grinders and drill presses.

1.11 PERSONAL PROTECTIVE EQUIPMENT

1.11.1 Proper personal protective equipment must be used at all times and will be provided by TERRY R PITT CONSTRUCTION. (ex: employees using hand tools who are exposed to hazard of falling,

flying, abrasive, splashing, or exposed to harmful dust, fumes, mists, vapors, or gases will use the proper PPE).

- 1.11.2 Noise is another hazard associated with pneumatic tools. Working with noisy tools such as jackhammers requires proper, effective use of appropriate hearing protection.
- 1.11.3 When using powder actuated tools, an employee must wear suitable ear, eye, and face protection.
- 1.11.4 A face shield will be worn when operating a powder actuated tool.

1.12 TRAINING

- 1.12.1 Training will be provided for operators of powder actuated tools.
- 1.12.2 Pre-use inspection will be completed to determine that the powder actuated tool is clean, that all moving parts operate freely, and that the barrel is free from obstructions.
- 1.12.3 When a tool develops a defect during use, the operator will immediately cease to use it and will notify the supervisor.
- 1.12.4 Tools will not be loaded until just prior to the intended firing time and the tool will not be left unattended while loaded.
- 1.12.5 The tool, whether loaded or empty, will not be pointed at any person and hands will be kept clear of the open barrel end.
- 1.12.6 In case of a misfire:
 - 1.12.6.1 The operator will be shown the proper way to remove the misfire.
 - 1.12.6.2 The operator will hold the tool in the operating position for at least 15 seconds and will continue to hold the muzzle against the work surface during disassembly or opening of the tool and removal of the powder load.
- 1.12.7 Neither tools nor powder charges will be left unattended in places where they would be available to unauthorized persons.
- 1.12.8 The area behind the site of the application will be secured when using a powder actuated tool.