Manual Section 7	Issue Date 03/17/16	Revision Date 1/15/25	Policy Number LLCP-074
	Hand & Portable Power Tools		

Purpose
Thousands of workers are injured every year due to improper use of hand and portable powered tools. Serious injury or death can be the result of electrocution, severed fingers, blindness, and a host of other types of injuries. OSHA estimates that most of these accidents can be prevented if proper safety precautions at job sites are initiated. This poses a serious problem for exposed workers and their employer. The OSHA Hand and Portable Powered Tools Standards establish uniform requirements to ensure that the hazards of using these tools are evaluated, safety procedures implemented, and that the proper hazard information is transmitted to all affected workers.

Scope
All GIS Holdings, LLC Companies and affiliates including, Blanchard Industrial, LLC, GIS Engineering, LLC, Grand Isle Shipyard, LLC., GWIS, Mack Steel, NuWave, Valvemax, Discovery Industries, Inc., and EIS, Global Inspections, LLC hereafter identified as "Company".

General
The Company will ensure that tool hazards are evaluated. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying tool selection and use deficiencies, evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

Responsibility
The Corporate HSE Director is solely responsible for all facets of this program and has full authority to make necessary decisions to ensure success of the program. The HSE Director is the sole person authorized to amend these instructions and is authorized to halt any operation of the company where there is danger of serious personal injury.

Note: The Company restricts the use of all homemade tools of any kind. Use of any tools that are field-fabricated or revised without consent of the manufacturer is strictly prohibited. A MoC is required to perform any tasks that requires the use of these types of tools.

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Written Program
The Company will review and evaluate this standard practice instruction on an annual basis, or when changes occur to 29 CFR 1910.221 - 244, that prompt revision of this document, or when facility operational changes occur that require a revision of this document. Effective implementation requires a written program for job safety, health, that is endorsed and advocated by the highest level of management within the Company and that outlines our goals and plans. This written program will be communicated to all required personnel. It is designed to establish clear goals, and objectives.

General requirements
The Company shall be responsible for the safe condition of tools and equipment used its employees, including tools and equipment, which may be furnished by employees. We will develop hand and powered tool operational procedures through the use of this document. After tool selection and evaluation, tools will be used and maintained in a safe condition. If tools are found to be broken, defective or do not meet inspection requirements; they shall be flagged with red tape and removed from service. Flagged tools shall be kept separate from in-service tools to assure they will not be used. Tools taken out of services shall be sent in for repair or replacement as soon as possible, which will also aid in assuring that the damaged tool is not used. Supervisors shall ensure that the proper types of tools are utilized at each job site.

Tool Selection, Evaluation and Condition
The greatest hazards posed by tools usually result from misuse and or improper maintenance. Tool selection sometimes is not considered a priority when arrangements are made to begin work. All employees will consider the following when selecting tools:

- Is the tool correct for the type work to be performed?
- Are guards installed properly and in good condition?
- Are grounding methods sufficient when working in wet conditions?
- Does the tool create sparks or heat? Has this been considered when working around flammable substances?
- Do impact tools such as chisels, wedges, or drift pins have mushroomed heads? The heads can shatter on impact, sending sharp fragments flying!
- Are wooden handled tools loose or splintered? This can result in the heads flying off and striking the user/coworkers!
- Are cutting tools sharp? Dull tools are more hazardous than sharp ones.
- Is the tool used on the proper working surface? Tools used on dirty or wet working surfaces can create a multitude of hazards.
- Are tools stored properly when not being used? Saw blades, knives, scissors and sharp tools should be stored so that sharp edges are directed away from aisles and coworkers.
- Is there sufficient clearance for tools requiring swinging motions such as hammers, axes, picks, etc?

GENERAL TOOL SPECIFIC REQUIREMENTS

Hammers

The face of the hammer should be flat and not too smooth. Check the handle for cracks and the head for tightness. When driving a nail, tap lightly to start it straight; drive with blows suited to the size of nail and type of wood. Turn up points of clinched nails before attempting to draw. When a nail has been partly withdrawn, place a small block under the head of the hammer for added leverage.

Adjustable Wrenches

Adjustable wrenches are generally recommended for light-duty jobs, or when the proper size fixed opening wrench is not available. Adjustable wrenches are more likely to slip, because of the difficulty in setting the correct size, and the tendency for the jaws to "work" as the wrench is being used. Never use a wrench as a hammer. Extending a wrench handle with a pipe or "cheater" may spread the jaws, increasing the possibility that the wrench will slip.

Chisels

A chisel should be large enough for the job and should be driven with a hammer of sufficient weight. Use the proper chisel for the material being cut. Chisels should be held with a steady, but relaxed, grip. Keep eyes on the cutting edge of the chisel. Chisels when struck by others should be held by tongs or other devices. Repair or replace mushroomed chisels, and cracked or broken chisel handles. Always chip away from yourself—never toward yourself.

Punches

The punch should be straight and should be suitable for the work. Points of center punches should be accurately ground at all times. Starting and pin punches should be squared. Start punches with light taps. Hold securely, especially on rounded surfaces. When knocking out rivets and pins, begin with starting the punch and finish with the pin punch. Avoid jamming tapered parts of punches in openings, or bending or breaking pin punches.

Hatchets and Axes

Be careful to avoid rebound of a hatchet or axe toward yourself and others. When striking an object on the ground, keep the object between the swing of the tool and your feet and legs. Check the handle and head connection frequently to ensure good condition. Keep your tool sharp!

Knives

Knives cause more disabling injuries than any other hand tool. The cutting stroke should be away from the body when possible. Knives should be safely stored when not in use. Keep your knives sharp and oiled. Throwing, "fencing," or trying to cut objects into smaller and smaller pieces, represent dangerous and unnecessary practices.

Screwdrivers

The screwdriver is probably the most commonly used and abused tool. Do not use a screwdriver as a chisel, pry-bar, or for any other purpose than intended. Keep the tip ground properly, and squared across. Handles should fit the shank tightly. Do not lean on a screwdriver, or push with more force than necessary to keep contact with the screw.

Files

Select the right kind of file for the job. When filing small objects, clamp securely, or use a vise. Do not use files for pry-bars, punches, etc., as file metal is usually very brittle and will snap. A handle should be used on a file whenever possible.

Hacksaws

The blade should be selected for the material being cut. The saw blade teeth should point forward. Use strong, steady strokes, directed away from you. Straight cuts cannot be made with loose blades and crooked frames. This may cause blades to bend, buckle, twist, bind, or break resulting in possible injury to the user.

Handsaws

Select the saw for the work intended. Keep the teeth and blades properly set. Protect the teeth when not in use. Hold the saw firmly, and start the cut carefully and slowly to avoid jumping of the blade. Check all material being cut for nails, knots, and other objects that may damage the saw or cause it to buckle. Be sure that the materials to be cut are adequately supported, secured, held, or wedged. If long pieces are being cut, a helper or support should be used.

Pliers

Pliers should be used only when no other tool will do the job. Never use pliers as wrenches. Pliers are considered to be a general-purpose tool, but are more often misused for purposes they were not designed. Pliers slip easily; tend to round the corners of bolts and nuts, and leave jaw marks on surfaces. Use cutting pliers only for cutting soft metals - - never hardened metals, or as nail pullers.

Box and Socket Wrenches

This is the best wrench available when a heavy pull is necessary. Their advantage is that such wrenches completely encircle any nut, bolt, or fitting and grip it at all corners. They will not slip off laterally and they minimize the potential to spring the jaws. Never use an extension or "cheater". Never strike on a wrench with a hammer; this weakens the tool and can result in breakage. Always pull a wrench, do not push it.

Pipe Wrench

Workers, especially those on overhead jobs, have been seriously injured when pipe wrenches slipped on pipes or fittings, causing the person to lose their balance and fall. The pipe wrench should have sharp jaws, which need to be kept clear. The adjusting nut of the wrench should be inspected frequently. Do not use "cheaters". The handle of every wrench is designed to be long enough for the maximum allowable safe pressure.

Crowbars

Select a bar that is suitable for the job. Makeshifts, such as a piece of pipe or an iron bar, should never be substituted for a crowbar, since they may slip and cause injury. In some cases a block of wood under the heel will prevent the crowbar from slipping and provide added leverage.

Shovels

Shovel handles should be free of splinters, cracks, and splits. The blade should be sharp and free of jagged and split edges. To reduce the chance of injury, the ball of the foot - - not the arch - - should be used to dress the shovel into stiff materials. Dipping your shovel in water occasionally will make it easier to use and free it of sticky material.

Wheelbarrows

Wheelbarrows should be selected for the job. Wheels should be strong and well secured to the frame. Keep bodies clear and free of jagged edges. Use extreme care in using ramps and walkways.

GUARDING

All fixed and portable tools that are designed to have guards shall have guards in place. Guards that have been installed or provided by the manufacturer shall not be removed for any reason except for the following:

- To allow for maintenance or component replacement after power is disconnected and isolated if necessary.

PORTABLE POWER TOOLS

Portable power tools may be powered by electricity, air pressure, hydraulic pressure, or rotating flexible shafting. Hazards associated with portable power tools are electrical shock, burns, cuts, bruises, falls, sprains, flying particles, explosions, and some occupational diseases. Safe practice in the use of portable power tools shall be observed to reduce or eliminate accidents.

Power tool precautions

Power tools can be hazardous when improperly used. These types are based on the power source they use: Electric, liquid fuel, hydraulic, pneumatic, and powder-actuated. The following precautions will be taken by employees to prevent injury.

- Power tools will always be operated within their design limitations.
- Eye protection, gloves and safety footwear are recommended during operation.
- Store tools in an appropriate dry location when not in use.
- Work only in well illuminated locations.
- Tools will not be carried by the cord or hose.
- Cords or hoses will not be yanked to disconnect it from the receptacle.
- Cords and hoses will be kept away from heat, oils, and sharp edges or any other source that could result in damage.
- Tools will be disconnected when not in use, before servicing, and when changing accessories such as blades, bits and cutters.
- Observers will be kept at a safe distance at all times from the work area.
- Work will be secured with clamps or a vice where possible to free both hands to operate tools.

- To prevent accidental starting, employees should be continually aware not to hold the start button while carrying a plugged in tool.
- When job task changes from original task, disconnect all tools from power sources, re-visit and up-grade the JSEA when necessary to accommodate changes.
- Tools will be maintained in a clean manner, and properly maintained in accordance with the manufacturer's guidelines.
- Ensure that proper shoes are worn and that the work area is kept clean to maintain proper footing and good balance.
- Ensure that proper apparel is worn. Loose clothing, ties, or jewelry can become caught in moving parts.
- Tools that are damaged will be removed from service immediately and tagged "Do Not Use". They will be reported and turned over to the Company for repair or replacement.
- Cracked saws. All cracked saws will be removed from service.
- Grounding. Portable electric powered tools shall meet the electrical requirements of the company Electrical Safety-Related Work Practices Program, and 29 CFR 1910.331 - 335.
- Compressed air used for cleaning. Compressed air shall not be used for cleaning purposes except where reduced to less than 30 p.s.i. and then only with effective chip guarding and personal protective equipment.

Methods of guarding

One or more methods of guarding shall be provided where required to protect the operator and other employees in the area from hazards such as those created by point of operation, in-running nip points, rotating parts, flying chips and sparks. Examples of guarding methods are; barrier guards, two-hand tripping devices, electronic safety devices, etc. The guard shall be such that it does not offer an accident hazard in itself. Employee's will:

- Inspect tools without guards for signs of guard removal. If it is evident that a guard is required. Tag-out the tool and obtain a replacement. Tools will not be energized during inspection.
- Inspect tools having guards for proper operation and maintenance prior to use. Tools will not be energized during inspection.
- Never remove a guard during use.

Portable circular saws

All portable, power-driven circular saws having a blade diameter greater than 2 in. will be equipped with guards above and below the base plate or shoe. The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. (Does not apply to circular saws used in the meat industry for meat cutting purposes). For authorized use the following conditions must be met.

- An upper guard must cover the entire blade of the saw.
- A retractable lower guard must cover the teeth of the saw.
- Except when it makes contact with the work material, the lower guard must automatically return to the covering position when the tool is withdrawn from the work.

Powered abrasive wheel tools

Abrasive wheels shall be used only on tools/equipment provided with safety guards.

- Exceptions. These requirements do not apply to the following classes of wheels and conditions:
- Wheels used for internal work while within the work being ground.
- Mounted wheels used in portable operations 2 inches and smaller in diameter.
- Types 16, 17, 18, 18R, and 19 cones, and plugs, and threaded hole pot balls where the work offers protection.
- Guard covers. Employees will ensure that a safety guard covers the spindle end, nut and flange projections. 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.
- Cup wheels. Cup wheels (Types 6 and 11) shall be protected by:

Safety guards as specified.

- Special "revolving cup guards" which mount behind the wheel and turn with it. They shall be made of steel or other material with adequate strength and shall enclose the wheel sides upward from the back for one-third of the wheel thickness. The mounting features shall conform to all regulations. It is necessary to maintain clearance between the wheel side and the guard. The clearance shall not exceed one-sixteenth.

General safety precautions

- Before being mounted it should be inspected closely and sound- or ring- tested to be sure that it is free from cracks or defects. To test, wheels should be tapped gently with a light non-metallic instrument. If they sound cracked or dead they could fly apart in operation and so must not be used. A sound and undamaged wheel will give a clear metallic tone or ring.
- Employees will not locate themselves directly in front of the wheel as it accelerates to full operating speed.
- Employees will always use eye protection.
- Power will be turned off when not in use.
- Hand held grinders are never placed in vises.
- Mounting and inspection of abrasive wheels.
    - Immediately before mounting, all wheels shall be closely inspected and sounded by the user using the ring test to make sure they have not been damaged in transit, storage, or otherwise. The spindle speed of the machine shall be checked before mounting of the wheel to be certain that it does not exceed the maximum operating speed marked on the wheel.
    - Grinding wheels shall fit freely on the spindle and remain free under all grinding conditions. A controlled clearance between the wheel hole and the machine spindle (or wheel sleeves or adaptors) is essential to avoid excessive pressure from mounting and spindle expansion. To accomplish this, the machine spindle shall be made to nominal (standard) size plus zero minus .002 inch, and the wheel hole shall be made suitably oversize to assure safety clearance under the conditions of operating heat and pressure.

- All contact surfaces of wheels, blotters, and flangers shall be flat and free of foreign matter.
- When a bushing is used in the wheel hole it shall not exceed the width of the wheel and shall not contact the flanges.
- Excluded machinery. Natural sandstone wheels and metal, wooden, cloth, or paper discs, having a layer of abrasive on the surface are not covered by these requirements.

Vertical portable grinders
Supervisors will ensure all employees are thoroughly familiar with, and use strict work practices in accordance with the manufacturer's instructions. Safety guards used on machines known as right angle head or vertical portable grinders shall have a maximum exposure angle of 180, and the guard shall be so located so as to be between the operator and the wheel during use. Adjustment of guard shall be such that pieces of an accidentally broken wheel will be deflected away from the operator. (See 29 CFR 1910.243, Figure P-4.)

- Other portable grinders. The maximum angular exposure of the grinding wheel margin and sides for safety guards used on other portable grinding machines shall not exceed 180 and the top half of the wheel shall be enclosed at all times.
- Bench Grinders. The upper marginal guard (tongue guard) will be adjusted downward to within 1/4 inch of the wheel and the tool rest kept adjusted closely to the wheel with a maximum clearance of 1/8 inch (29 CFR 1910.215).

Portable belt sanding machines
Supervisors will ensure that all belt sanding machines used by their personnel be provided with guards at each nip point where the sanding belt runs onto a pulley. These guards will effectively prevent the hands or fingers of the operator from coming in contact with the nip points. The unused run of the sanding belt shall be guarded against accidental contact.

Pneumatic powered tools and hoses
Supervisors will ensure all employees are thoroughly familiar with, and use strict work practices in accordance with the manufacturer's instructions. Prior to use the following requirements will be complied with.

- Tool retainer. A tool retainer will be installed on each piece of utilization equipment which, without such a retainer, may eject the tool.
- Air hoses. Hose and hose connections used for conducting compressed air to utilization equipment will be compatible with the pressure and service to which they are subjected.

Explosive actuated fastening tools

- General safety precautions: Supervisors will ensure all employees are thoroughly familiar with, and use strict work practices in accordance with the manufacturer's instructions.
  - Operators and assistants using tools shall be safeguarded by wearing eye protection.
  - Head and face protection shall be used, as required by working conditions.
  - Before using a tool, the employee will inspect it to determine to his satisfaction that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions.

- When a tool develops a defect during use, the operator shall immediately cease to use it, until it is properly repaired.
    - Tools will not be loaded until just prior to the intended firing time. Neither loaded nor empty tools are to be pointed at any workmen.
    - No tools shall be loaded unless being prepared for immediate use, nor shall an unattended tool be left loaded.
    - Misfire instructions (general).
        - Know the manufacturers instructions.
        - Hold the tool in the operating position for at least 30 seconds.
        - Try to operate the tool a second time.
        - Wait another 30 seconds, holding the tool in the operating position; then proceed to remove the explosive load in strict accordance with the manufacturer's instructions.
    - A tool will never be left unattended in a place where it would be available to unauthorized persons.
    - Fasteners will not be driven into very hard or brittle materials including, but not limited to, cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick, or hollow tile.
    - Driving into materials easily penetrated will be avoided unless such materials are backed by a substance that will prevent the pin or fastener from passing completely through and creating a flying-missile hazard on the other side.
    - Fasteners will not be driven directly into materials such as brick or concrete closer than 3 inches from the unsupported edge or corner, or into steel surfaces closer than one-half inch from the unsupported edge or corner, unless a special guard, fixture, or jig is used. (Exception: Low-velocity tools may drive no closer than 2 inches from an edge in concrete or one-fourth inch in steel.)
    - When fastening other materials, such as a 2X4 inch wood section to a concrete surface, it is permissible to drive a fastener of no greater than 7/32 inch shank diameter not closer than 2 inches from the unsupported edge or corner of the work surface.
    - Fasteners will not be driven through existing holes unless a positive guide is used to secure accurate alignment.
    - No fastener will be driven into a space filler area caused by an unsatisfactory fastening.
    - Tools will not be used in an explosive or flammable atmosphere.
    - All tools will be used with the correct shield, guard, or attachment recommended by the manufacturer.
    - Any tool found not in proper working order will be immediately removed from service and turned over to the Company. The tool will be inspected at regular intervals and shall be repaired in accordance with the manufacturer's specifications.

- High-velocity tools. Only tools meeting the design specifications of 29 CFR 1910.243 will be used by the Company. Employees contemplating purchase of high-velocity tools will consult the OSHA standard before final tool selection. The manufacturer's inspection criteria will be followed for pre-use inspection.
- Low-velocity tools. Only tools meeting the design specifications of 29 CFR 1910.243 will be used by the Company. Employees contemplating purchase of low-velocity tools will consult the OSHA standard before final tool selection. The manufacturer's inspection criteria will be followed for pre-use inspection.
- Low-velocity piston type tools. Only tools meeting the design specifications of 29 CFR 1910.243 will be used by the Company. Employees contemplating purchase of low-velocity piston type tools will consult the OSHA standard before final tool selection. The manufacturer's inspection criteria will be followed for pre-use inspection.

Power lawnmowers
Supervisors will ensure all employees are thoroughly familiar with, and use strict work practices in accordance with the manufacturer's instructions.

General requirements
- Power lawnmowers used by the Company will have power-driven chains, belts, and gears so positioned or otherwise guarded to prevent the operator's accidental contact therewith, during normal starting, mounting, and operation of the machine.
- A shutoff device will be provided to stop operation of the motor or engine. This device will require manual and intentional reactivation to restart the motor or engine.
- All positions of the operating controls will be clearly identified.
- The words, "Caution. Be sure the operating control(s) is in neutral before starting the engine," or similar wording shall be clearly visible at an engine starting control point on self-propelled mowers.
- The mower blade will be enclosed except on the bottom and the enclosure shall extend to or below the lowest cutting point of the blade in the lowest blade position.
  - Guards which must be removed to install a catcher assembly will be affixed to the mower near the opening stating that the mower will not be used without either the catcher assembly or the guard in place.
  - The word "Caution." or stronger wording, will be placed on the mower at or near each discharge opening.
  - Proper precautions will be taken when refueling mowing equipment.
  - Mowing equipment will never be left unattended while running.
  - Will constantly be mindful of persons working near the operation of the mower.

Jacks

- The operator will make sure that the jack used has a rating sufficient to lift and sustain the load.
- The rated load will be legibly and permanently marked in a prominent location on the jack by casting, stamping, or other suitable means.
- In the absence of a firm foundation, the base of the jack will be blocked. If there is a possibility of slippage of the cap, a block shall be placed in between the cap and the load.
- The operator will watch the stop indicator, which shall be kept clean, in order to determine the limit of travel. The indicated limit will never be overrun.
- After the load has been raised, it will be cribbed, blocked, or otherwise secured at once.
- Hydraulic jacks exposed to freezing temperatures shall be supplied with an adequate antifreeze liquid.
- All jacks shall be properly lubricated at regular intervals.
- Inspections. Each jack will be thoroughly inspected at times which depend upon the service conditions. Inspections will be not less frequent than the following:
    - For constant or intermittent use at one locality, once every 6 months.
    - For jacks sent out of shop for special work, when sent out and when returned.
    - For a jack subjected to abnormal load or shock, immediately before and immediately thereafter.
    - Repair or replacement will shall be examined for possible defects before installation.
    - Jacks which are out of order will be tagged-out accordingly, and reported to your supervisor, and will not be used until repairs are made.

Handheld Cutting Tools

Employees utilizing cutting implements shall receive demonstrations relating to proper care, the types of implements associated with their individual work duties, and proper sharpening of cutting implements, including knives and scissors. Job specific training for employees who use handheld cutting tools and knives in the regular conduct of duties will be conducted. The training will involve demonstrations and a reasonable amount of time to practice proper work techniques prior to employees being required to work at full capacity.

- Classroom training. Each employee will receive training on the following subjects:
    - Cutting techniques;
    - Cutting tool care and maintenance;
    - Proper cutting tool sharpening techniques;
    - Hazards of improper cutting tool handling;
    - Types of knives associated with individual work duties;
    - Maintaining sharp cutting edges on knives and other cutting implements.
        - Safe Cutting techniques include:
        - Match the type of cutting device to the task;

- Keep blades well sharpened;
- Always cut away from your body;
- Use handles that distribute the pressure over the fleshy part of the palm;
- Never use a cutting device as a screwdriver;
- Always store cutting devices separately from other tools
- Never leave a cutting device lying around;
- Ensure belt sheaths are over the hip
- Ensure gloves allow the ability to “feel” the cutting devices;
- Never exert high pressure while using a cutting device (obtain a better cutting device);

  - On-the-job training. Following the classroom training, employees shall be assigned to work with a qualified mentor who can provide on-the-job training. This on-the-job training will be monitored by the person-in-charge and/or supervisor at regular intervals.
  - Employee conditioning. In those jobs where handheld cutting devices are identified as having the potential for development of Cumulative Trauma Disorders (CTD), new or reassigned employees to those jobs shall be given the opportunity to condition muscle/tendon/nerve groups.

Switches and controls

Employees will determine the following before using a hand-held power tool.

- Circular saws, chain saws and percussion tools. All hand-held powered circular saws having a blade diameter greater than 2 inches, electric, hydraulic or pneumatic chain saws, and percussion tools without positive accessory holding means shall be equipped with a constant pressure switch or control that will shut off the power when the pressure is released. All hand-held gasoline powered chain saws shall be equipped with a constant pressure throttle control that will shut off the power to the saw chain when the pressure is released.
- All hand-held powered drills, tappers, fastener drivers, horizontal, vertical, and angle grinders with wheels greater than 2 inches in diameter, disc sanders with discs greater than 2 inches in diameter, belt sanders, reciprocating saws, saber, scroll, and jig saws with blade shanks greater than a nominal one-fourth inch, and other similarly operating powered tools shall be equipped with a constant pressure switch or control, and may have a lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.
- Other hand-held powered tools.
  - All other hand-held powered tools, such as, but not limited to, platen sanders, grinders with wheels 2 inches in diameter or less, disc sanders with discs 2 inches in diameter or less, routers, planers, laminate trimmers, nibblers, shears, saber, scroll, and jig saws with blade shanks a nominal one-fourth of an inch wide or less, will be equipped with either a positive "on-off" control, or other controls as described by paragraphs 7.1, and 7.2 of this Standard Practice Instruction.

- Saber, scroll, and jig saws with nonstandard blade holders may use blades with shanks which are non-uniform in width, provided the narrowest portion of the blade shank is an integral part in mounting the blade.
- Blade shank width shall be measured at the narrowest portion of the blade shank when saber, scroll, and jig saws have nonstandard blade holders. OSHA defines nominal in this subparagraph as ± 0.05 inch.
- Equipment used by the Company will have the operating control on hand-held power tools located so as to minimize the possibility of its accidental operation, if such accidental operation would constitute a hazard to employees.
- Applicability. Section 14.3 of this Standard Practice Instruction does not apply to concrete vibrators, concrete breakers, powered tampers, jack hammers, rock drills, garden appliances, household and kitchen appliances, personal care appliances, medical or dental equipment, or to fixed machinery.

Initial training

Training shall be conducted prior to job assignment. The Company shall provide training to ensure that the purpose, function, and proper use of tools to be used in the normal function of their jobs is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees. This standard practice instruction shall be provided to, and read by all employees receiving training. The training shall include, as a minimum the following:

- Types of tools appropriate for use.
- Recognition of applicable hazards associated with the work to be completed.
- Tool determination and additional requirements.
- Procedures for removal of a tool from service.
- All other employees whose work operations are or may be in an area where tools which could present a hazard to other than the user, will be instructed to an awareness level concerning hazards.
- Tools identification. Tools having identification numbers will be checked for legibility.
- Certification. The Company shall certify that employee training has been accomplished and is being kept up to date. The certification shall contain each employee's name and dates of training.

Definitions

Explosive-actuated fastening tool terms

- **Hammer-operated piston tool--low-velocity type**. A tool, which, by means of a heavy mass hammer supplemented by a load, moves a piston designed to be captive to drive a stud, pin, or fastener into a work surface, always starting the fastener at rest and in contact with the work surface.
- **High-velocity tool**. A tool or machine which, when used with a load, propels or discharges a stud, pin, or fastener, at velocities in excess of 300 feet per second when measured 6.5 feet from the muzzle end of the barrel, for the purpose of impinging it upon, affixing it to, or penetrating another object or material.

- **Low-velocity piston tool**. A tool that utilizes a piston designed to be captive to drive a stud, pin, or fastener into a work surface. It will not cause such stud, pin, or fastener to have a mean velocity in excess of 300 feet per second when measured 6.5 feet from the muzzle end of the barrel.
- **Stud, pin, or fastener**. A fastening device specifically designed and manufactured for use in explosive-actuated fastening tools.
- **To chamber**. To fit properly without the use of excess force, the case being duly supported.
- **Explosive powerload, also known as load**. Any substance in any form capable of producing a propellant force.
- **Tool**. An explosive-actuated fastening tool, unless otherwise indicated, and all accessories pertaining thereto.
- **Protective shield or guard**. A device or guard attached to the muzzle end of the tool, which is designed to confine flying particles.

Abrasive wheel terms

- **Mounted wheels**. Mounted wheels, usually 2 inch diameter or smaller, and of various shapes, may be either organic or inorganic bonded abrasive wheels. They are secured to plain or threaded steel mandrels.
- **Tuck pointing**. Removal, by grinding, of cement, mortar, or other nonmetallic jointing material.
- **Tuck pointing wheels**. Tuck pointing wheels, usually Type 1, reinforced organic bonded wheels have diameter, thickness and hole size dimension. They are subject to the same limitations of use and mounting as Type 1 wheels. Limitation: Wheels used for tuck pointing should be reinforced, organic bonded.
- **Portable grinding**. A grinding operation where the grinding machine is designed to be hand held and may be easily moved from one location to another.
- **Organic bonded wheels**. Organic wheels are wheels which are bonded by means of an organic material such as resin, rubber, shellac, or other similar bonding agent.
- **Safety guard**. A safety guard is an enclosure designed to restrain the pieces of the grinding wheel and furnish all possible protection in the event that the wheel is broken in operation.
- **Reinforced wheels**. The term reinforced as applied to grinding wheels shall define a class of organic wheels which contain strengthening fabric or filament. The term reinforced does not cover wheels using such mechanical additions as steel rings, steel cup backs or wire or tape winding.
- **Type 11 flaring cup wheels**. Type 11 flaring cup wheels have double diameter dimensions D and J, and in addition have thickness, hole size, rim and back thickness dimensions. Grinding is always performed on rim face, W dimension. Type 11 wheels are subject to all limitations of use and mounting listed for Type 6 straight sided cup wheels definition.
- **Type 6 straight cup wheels**. Type 6 cup wheels have diameter, thickness, hole size, rim thickness, and back thickness dimensions. Grinding is always performed on rim face, W dimension. Limitation: Minimum back thickness, E dimension, should not be less than one-fourth T dimension. In addition, when unthreaded hole wheels are specified, the inside flat, K dimension, must be large enough to accommodate a suitable flange.

- **Type 1 straight wheels**. Type 1 straight wheels have diameter, thickness, and hole size dimensions and should be used only on the periphery. Type 1 wheels shall be mounted between flanges. Limitation: Hole dimension (H) should not be greater than two-thirds of wheel diameter dimension (D) for precision, cylindrical, centerless, or surface grinding applications. Maximum hole size for all other applications should not exceed one-half wheel diameter.

Jack terms (Lever and ratchet, screw and hydraulic)

- **Jack**. A jack is an appliance for lifting and lowering or moving horizontally a load by application of a pushing force.
- **Rating**. The rating of a jack is the maximum working load for which it is designed to lift safely that load throughout its specified amount of travel.

Note: To raise the rated load of a jack, the point of application of the load, the applied force, and the length of lever arm should be those designated by the manufacturer for the particular jack considered.