

	COMPANY HEALTH AND SAFETY PROGRAM	
	Document No. 8.11	Date: August 16, 2006
	Hand and Power Tools Standard	Revision: 0

1.0 PURPOSE

The purpose of this standard is to set guidelines and safe practices for the use of hand and power-actuated tool equipment by HES employee's. This standard has been developed in response to providing safe operating conditions and through the requirements set in 29 CFR 1910.242 -.244 and 1926.300 -.306.

2.0 SCOPE

This plan applies to all departments and projects of HES and affected contractor(s) working directly for HES.

3.0 POLICY

It is the policy of HES to initiate safe tool handling practices by adopting guidelines and standards for the protection of personnel. The Hand and Power Tool Standard is a standing guide for affected personnel.

4.0 GENERAL REQUIREMENTS

- All hand and power tools and similar equipment must be maintained in a safe condition.
- If power operated tools are designed to accommodate guards, they must be equipped with guards when in use.
- Guarding must meet the requirements as set forth in American National Standards Institute, B15.1-1953 (R1958), Safety Code for Mechanical Power-Transmission Apparatus.
- One or more methods of machine guarding must be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, and flying debris. Machine guarding may include: barrier guards, two-hand tripping devices, or electronic safety devices.
- Personnel using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dusts, fumes, mists, vapors, or gases will be provided with the particular PPE necessary to protect them from the hazard.

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- All hand-held powered drills, tappers, fastener drivers, horizontal, vertical, and angle grinders with wheels greater than 2 inches in diameter, disc sanders, belt sanders, reciprocating saws, saber saws, and other similar operating powered tools must be equipped with a momentary contact “on-off” control and may have a lock-on control provided that turnoff can be accomplished by a single motion of the same finger that energizes the tool.
- All other hand-held powered tools, such as circular saws, chain saws, and percussion tools without positive accessory holding means, must be equipped with a constant pressure switch that will shut off the power when the pressure is released.
- Compressed air must not be used for cleaning purposes except where reduced to less than 30 p.s.i. and then only with effective chip guarding and PPE.

5.0 HAND TOOL REQUIREMENTS

- Hand tools should be used only for their designed purpose to prevent damage and personnel hazards.
- Wrenches, including adjustable, pipe, end, and socket wrenches must not be used when jaws are sprung to the point that slippage occurs.
- Impact tools, such as drift pins, wedges, and chisels, must be kept free of mushroomed heads.
- The wooden handles of tools must be kept free of splinters or cracks and must be kept tight in the tool.

6.0 POWER-OPERATED HAND TOOL REQUIREMENTS

- Electric power operated tools must either be of the approved double-insulated type or grounded in accordance with 29 CFR 1926 Subpart K.
- The use of electrical cords or hoses for hoisting or lowering tools will not be permitted.
- Safety clips or retainers must be securely installed and maintained on pneumatic (percussion) tools to prevent attachments from being accidentally expelled.
- Manufacturer’s safe operating pressure for hoses, pipes, valves, filters, and other fittings must not be exceeded.

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- Airless spray guns of the type which atomize paints and fluids at high pressures (1,000 pounds or more p.s.i.) must be equipped with automatic or visible manual safety devices which will prevent pulling of the trigger and release of the paint or fluid until the safety device is manually released. A diffuser nut plus a nozzle tip guard may also be used.
- All fuel powered tools must be stopped and off while being refueled, serviced, or maintained, and fuel handled accordingly.
- If fuel powered tools are used in enclosed spaces, the applicable requirements for concentrations of toxic gases and use of PPE will be adhered to in accordance with 29 CFR 1926 Subpart D and Subpart E.
- The fluid used in hydraulic powered tools must be fire-resistant fluids approved under Schedule 30 of the U.S. Bureau of Mines, Department of the Interior, and will retain its operating characteristics at the most extreme temperatures to which it will be exposed.
- Power tools must be tested daily before loading to ensure that safety devices are in proper working condition. Testing methods will be in accordance with the manufacturer's recommendations.
- Any tool found not in proper working order, or that develops a defect during usage will be immediately removed from service and not used until repaired.
- Neither loaded or empty tools are to be pointed at any employee. Hands will be kept clear of the open barrel end.
- Loaded tools must not be left unattended.
- Driving into materials easily penetrated must be avoided unless the 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.
- Tools must not be used in an explosive or flammable atmosphere unless they are intrinsically safe (explosion proof).
- All tools must be used with the correct shield, guard, or attachment recommended by the manufacturer.

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7.0 ABRASIVE WHEELS AND TOOL REQUIREMENTS

- Grinding machines must be equipped with safety guards in conformance with the requirements of American National Standards Institute, A10.3-1970, Safety Requirements for Explosive-Actuated Fastening Tools.
- Safety guards must be strong enough to withstand the effects of a bursting wheel.
- Safety guards must be so mounted as to maintain proper alignment with the wheel, and the guard and its fastenings must be of sufficient strength to retain fragments of the wheel in case of accidental breakage.
- All abrasive wheels must be closely inspected and ring tested before mounting to ensure that they are free from cracks or defects.
- Grinding wheels must fit freely on the spindle and not be forced on. The spindle nut must be tightened only enough to hold the wheel in place.
- All employees using abrasive wheels must be protected by eye protection equipment in accordance with the requirements of 29 CFR 1926 Subpart E.

8.0 WOODWORKING TOOL REQUIREMENTS

- All portable, power-driven circular saws must be equipped with guards above and below the base plate or shoe. The upper guard must 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. The lower guard must cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. Once the tool is withdrawn from the work, the lower guard must automatically and instantly return to the covering position.

9.0 JACK REQUIREMENTS

- The manufacturer's rated capacity must be legibly marked on all jacks and must not be exceeded.
- All jacks must have a positive stop to prevent overtravel.
- When it is necessary to provide a firm foundation, the base of the jack must be blocked or cribbed. Where there is a possibility of slippage of the metal cap of the jack, a wood block must be placed between the cap and the load.

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- Hydraulic jacks exposed to freezing temperatures must be supplied with an adequate antifreeze liquid.
- Jacks must be inspected prior to use.
- Jacks that are “out of order” must be tagged accordingly, and not used until repairs are completed.

10.0 AIR RECEIVER REQUIREMENTS

- Air receivers must never be buried underground or in an inaccessible location.
- A drain pipe and valve must be installed at the lowest point of every air receiver to provide for the removal of accumulated oil and water. Automatic traps may be installed in addition to drain valves.
- Each air receiver must be equipped with an indicating pressure gauge and with one or more spring-loaded safety valves.
- No valves of any type are to be placed between the air receiver and safety valve.

11.0 TRAINING

Employees will be made aware of and understand the information presented in this hand and power tools standard. Supervisors will instruct personnel under their supervision on the proper use of equipment accordingly.

Employees who have had no training or experience with a particular tool being used should request instruction if they have never used the tool before. Misuse of tools may lead to extremely dangerous situations and possible injury.

