



## **Power Hand Tool Safety Policy**

### **GENERAL**

The UNCW Environmental Health & Safety Department (EH&S) is authorized by UNCW Policy 05.600 ([http://uncw.edu/policies/documents/05\\_600\\_EHandSPolicy\\_5Feb2010.pdf](http://uncw.edu/policies/documents/05_600_EHandSPolicy_5Feb2010.pdf)) to develop and manage comprehensive environmental, health and safety programs. Additionally, they are tasked to identify and address regulatory requirements. In that spirit, this Power Hand Tool Safety Policy has been developed to protect employees by ensuring that all employees understand safe Power hand Tool use and practice before employees perform servicing and maintenance activities. This policy is intended to meet the Occupational Safety and Health Requirements for General Industry outlined in 29 CFR 1910.241.

### **SCOPE**

This policy applies to all university employees regardless of status or type of employment. It may be used as minimum guidelines for contractors and/or vendors that are expected to maintain their own safety program.

### **APPLICATION**

This written policy outlines responsibilities, training, specific procedures and inspections with regard to Power Hand Tool Safety.

### **RESPONSIBILITIES**

Each department shall be responsible for the implementation of the Power Hand Tool Safety Policy as needed as well as retention and maintenance of equipment manuals. Employees shall have training in understanding the significance of implementing the procedures. Employees will use the Power Hand Tool Safety procedures when working on or with Power Hand Tools, etc. Department Supervisors shall be responsible for training record keeping and record retention.

### **TRAINING**

The EH&S Department shall provide general training every three (3) years and the department shall provide department-specific training as needed so employees understand the purpose and function of the program (knowledge, skills, application, use, maintenance) and shall include the following:

Training shall include:

1. How to select the proper tool for the job
2. How to use these tools properly
3. Procedures for inspection of tools
4. Procedures for storage of tools
5. Procedures for repair of faulty tools

6. The importance of planning jobs ahead so that the correct tools are available

**Retraining:**

Retraining shall reestablish proficiency and introduce new or revised methods

1. There shall be retraining with any change in job assignments, change in machines, equipment or process that presents a new hazard or a change in procedures
2. Retrain when inspection reveals a need, or whenever the employer sees a need
3. Retraining shall be completed no less than every three (3) years

**SPECIFIC PROCEDURES**

OSHA recognized five categories of powered operated hand tools.

1. Electric power operated tools
2. Pneumatic power tools
3. Fuel powered tools
4. Hydraulic power tools
5. Power-actuated tools

Each employer is responsible for the safe condition of tools and equipment used by employees. This includes tools and equipment which may be furnished by employees.

**General Safe Work Practices**

1. Wear safety glasses with side shields or other equivalent eye protection when using hand or portable power tools.
2. Use the right tool of the job
3. Inspect tools before use.
4. Lockout and/or Tag out defective tools. Do not use damaged tools
5. Know how to use each tool properly
6. Carry tools properly and store them in a safe manner

**Electric Tools**

1. All electric power tools shall be effectively grounded except the double insulated and cordless type
2. Electric cords shall be inspected periodically and kept in good condition. Heavy-duty plugs that clamp to the cord should be used to prevent strain on the current-carrying parts if the cord is accidentally pulled
3. Electric saw guards should be checked frequently to be sure it operates freely and encloses the teeth completely when it is not cutting
4. Refer to Lockout/ Tag Out Procedures for defective equipment

**Abrasive Wheels and Tools**

1. Power- all grinding machines shall be supplied ample power to maintain the spindle speed at safe levels under all normal operating conditions.
2. Guarding:

- i. Must be equipped with safety guards approved by the ANSI of the use, care and protection of abrasive wheels
- ii. Safety guards shall be strong enough to withstand the effect of a bursting wheel.
- iii. Guards shall be mounted such to maintain proper alignment with the wheel. The guard and its fastenings shall be of sufficient strength to retain fragments of the wheel in case of accidental breakage.
- iv. The maximum angular exposure of the grinding wheel periphery and sides shall not exceed the recommendations set forth in 29 CFR 1910.215(b) (4).  
([http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9839](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9839))
- v. All abrasive wheels shall be closely inspected and ring-tested before mounting to ensure that they are free from cracks and defects.

### **Pneumatic Power Tools**

1. Shall be secured to the hose or whip by some positive means to prevent the tools from becoming accidentally disconnected
2. Safety clips or retainers shall be securely installed and maintained on pneumatic impact tools to prevent attachments from being accidentally expelled.
3. All pneumatically driven nailers, staplers and other similar equipment provided with automatic fastener feed, which operate at more than 100 psi shall have a safety device on the muzzle to prevent the tool from ejecting fasteners, unless the muzzle is in contact with the work surface
4. Compressed air shall not be used for cleaning tools or personal purposes unless the pressure is reduced to 30 psi at the outlet nozzle
5. The use of hoses for hoisting or lowering tools shall not be permitted
6. Refer to Lockout/ Tag Out Procedures for defective equipment

### **Fuel Powered Tools**

1. All fuel powered tools shall be stopped while being refueled, serviced or maintained and fuel shall be transported, handled, and stored in approved & labeled safety cans.
2. Leakage or spillage of flammable or combustible liquids shall be disposed of promptly and safely.
3. Refer to Lockout/ Tag Out Procedures for defective equipment

### **Hydraulic Power Tools**

1. The fluid used in these power tools shall be fire-resistant and shall retain its operating characteristics at the most extreme temperatures to which it will be exposed
2. The manufacturer's safe operating pressures for hoses, valves, pipes, filters, and other fitting shall not be exceeded

### **Explosive Actuated Tools**

1. The tools shall be tested each day before loading to see that safety devices are in proper working condition.
2. Any tool found not in proper working order or one that has developed a defect during use shall be removed from service immediately and not used until properly repaired.

3. The stool shall be designed so that it cannot be fired unless it is equipped with a standard protective shield or guard.
4. The firing mechanism shall be designed so the tool cannot fire during loading or preparation to fire or if the tool is dropped while loaded.
5. Tools shall not be loaded until just prior to the intended firing time. Neither loaded or empty tools are to be pointed at any employees.
6. Loaded tools shall not be left unattended.

## **INSPECTION**

1. Make periodic tool inspections for guards, frayed wires, etc.
2. Conduct quarterly inspections as a minimum. Record all inspections made.
3. Remove defective tools from service when noted during inspection. Tag it with "DANGEROUS - DO NOT USE". Do not use until tool is repaired.
4. Dispose of any tool that cannot be repaired.

## **OCCUPATIONAL NOISE EXPOSURE**

As set forth in 29 CFR 1910.95, the employer shall administer a continuing, effective hearing conservation program, as described in paragraphs (c) through (o) of this section, whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response) or, equivalently, a dose of fifty percent. For purposes of the hearing conservation program, employee noise exposures shall be computed in accordance with appendix A and Table G-16a, and without regard to any attenuation provided by the use of personal protective equipment.

([http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9735](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9735))