HAND TOOL
AND
PORTABLE POWER TOOL
SAFETY

City of Burlington

ADOPTED BY THE
CITY OF BURLINGTON
CENTRAL SAFETY COMMITTEE

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GENERAL INFORMATION

The number and technical nature of tasks performed by employees of the City of Burlington guarantees that the types of hand and powered tools employees use is almost impossible to list. Further, OSHA regulates hand and powered tool use in the Logging, Commercial Diving, Shipyards, Marine Terminals, Longshoring and Construction industries as well as General Industry. Though there is sometimes a regulatory cross-over between these industries, for the sake of the safety of the employees of the City of Burlington, General Industry will be the primary regulatory field considered in this Safety Program, though special circumstances may arise from time to time requiring regulatory references in fields other than General Industry.

For the purposes of this Hand and Portable Power Tool Safety Program, OSHA regulatory references shall focus on:

- **29 CFR 1910 (Subpart P)**
  - Authority to establish regulatory requirements
- **29 CFR 1910.241**
  - Definitions (more than 20)
- **29 CFR 1910.242**
  - General requirements
  .242(a) states the employer’s responsibility for the safe condition of tools and equipment used by employees, even those furnished by the employees;
  .242(b) addresses use of compressed air for cleaning.
- **29 CFR 1910.243**
  - Addresses guarding of portable powered tools and establishes regulations for: portable, power-driven circular saws; hand-held powered drills, tappers, fastener drivers, grinders, belt Sanders, reciprocating saws, saber, scroll and jig saws, planer Sanders, routers, planers, laminate trimmers, nibblers and shears.
  Also establishes regulations for electrical grounding, pneumatic tools, tool retainers, air hoses, abrasive wheels, types 16, 17, 18, 18R and 19 cones, plugs and threaded hole pot balls (abrasive grinding devices), cup wheels, revolving cup guards, vertical and other portable grinders, explosive actuated fastening tools, and powered lawn mowers.
- **29 CFR 1910.244**
  - Addresses other portable tools and equipment, specifically jacks and abrasive blast cleaning nozzles.

Additionally, OSHA refers to:

- **ANSI B-71.1 (1980)**, which addresses safety specifications for power lawn mowers, lawn and garden tractors, and lawn tractors; and
- **29 CFR 1910.212**, which addresses general requirements for all machines.

Finally, 2 OSHA publications are recommended for additional insight into what OSHA considers important when using hand and portable power tools. They can be accessed at the following web sites:

INTENT OF HAND TOOL AND PORTABLE POWER TOOL SAFETY PROGRAM

It shall be the practice and policy of the City of Burlington to protect all employees from work-related injury or illness and to comply with all regulatory requirements concerning the safe use of all hand and portable power tools.

RESPONSIBILITIES

It shall be the responsibility of each MANAGER at any level to address hazards associated with the use of such tools and to cause appropriate training of affected employees prior to their use of equipment in order to enable them to safely use the tools required in the performance of their jobs. Should an employee demonstrate a lack of sufficient knowledge to safely use a tool, it shall be the responsibility of the supervisor to re-train the employee in the specific areas in which the employee has demonstrated insufficient knowledge, and to produce and retain on file written documentation of the training.

It shall further be the responsibility of each MANAGER to administer appropriate disciplinary action to any employee who fails or refuses to comply with approved safe work practices, up to and including termination of employment, under authority of City of Burlington ordinance Sec. 2-399(1)(k).

It shall be the responsibility of each EMPLOYEE, having been trained to safely use the hand and portable power tools required by his/her job, to comply with appropriate safe work practices to prevent work-related injury or illness to himself or others.

AUTHORITATIVE SOURCE

OSHA recognizes that the authoritative reference source for safe use of hand and portable power tools is the manufacturer’s published operator’s manual. It shall be the practice of the City of Burlington to recognize the manufacturer’s operator’s manual as the minimum safety standard in operation of hand and portable power tools, reserving however the right to establish safe operating practices that exceed those of either OSHA or the manufacturer, in order to protect employees from potential injury or illness.

PPE:

It shall be the policy and practice of the City of Burlington to first seek to eliminate or minimize recognized job hazards through administrative and/or engineering means. But where administrative and/or engineering means fail to sufficiently protect employees from injury or illness, the City of Burlington will provide appropriate Personal Protective Equipment (PPE) to employees at no cost to the employee and will train the employee in it’s correct use. (The City of Burlington does not currently pay for prescription safety glasses but provides, at no charge, “overspec” safety glasses that fit over prescription glasses.)

Having equipped employees with appropriate PPE and having trained them to correctly use it, the City of Burlington will then require employees, as a condition of continued employment, to correctly use and maintain the equipment they’ve been issued or that has been made available to them. Further, supervisors and other managers shall enforce appropriate use and maintenance of PPE, retrain employees when the need is demonstrated, and administer appropriate
disciplinary action for failure or refusal to comply with regulatory and statutory ordinances up
to and including termination of employment, under authority of City of Burlington ordinance
Sec. 2-399(1)(k).

A partial list of the kinds of personal protective equipment needed by City of Burlington
employees who use or operate hand or portable power tools includes:

- **Eye protection**
  Safety glasses; chemical splash goggles; welding helmet with appropriate
  shades and lenses; portable pedestrian screens

- **Face protection**
  Full face shield; welding helmet

- **Head protection**
  Hard hat, where the job hazard indicates the need;
  Bump cap, where the job hazard indicates the need

- **Hearing protection**
  Where noise levels equal or exceed 90 dB, or
  When the employee has experienced a Standard Threshold Shift (hearing loss),
  use of hearing protection where the noise level equals or exceeds 85 dB
  (Protective devices must have an NRR that equals or exceeds noise levels.)

- **Respiratory**
  Appropriate to the job hazard;
  (No respirator may be worn until the employee has received a medical
  evaluation, the appropriate respirator has been designated, and fit testing and
  training have been completed. Employees may not provide or use their own
  personal respiratory protection unless approved by the City of Burlington
  Certified Occupational Health Nurse.)

- **Trunk (body) protection**
  Impact resistant vests; aprons (chemical, welding, bloodborne pathogens);
  long-sleeved shirt; long trousers; leg chaps (chainsaw, etc.); shin guards

- **Hand**
  Cloth, leather, rubber, or other as required by the job hazard

- **Foot**
  Steel toe shoes/boots, rubber boots, and other protective devices as appropriate
  to the job hazards

To assist in training, OSHA’s Publication 3080, the web site for which is referenced above,
addresses the hazards of hand tools and the dangers of power tools. It also talks about guarding,
operating controls and switches, electric tools, portable abrasive wheel tools, pneumatic tools,
liquid fuel tools, powder-actuated tools and hydraulic power tools.

This publication states that there are “Five basic safety rules that can help prevent hazards
associated with the use of hand and power tools.” They are:

1. Keep all tools in good condition with regular maintenance;
2. Use the right tool for the job;
3. Examine each tool for damage before use and don’t use damaged tools;
4. Operate tools according to the manufacturers’ instructions; and
5. Provide and use properly the right PPE.
Hand Tool and Portable Power Tool Program

TEST

True False
☐ ☐ Only persons who have been trained in their proper use should use power tools.
☐ ☐ Carrying, lowering, or pulling a power tool out of the receptacle by its cord can damage the cord or tool and make it unsafe for use.
☐ ☐ Power tools should be checked for defective switches, cords, plugs and proper grounding before and after each use.
☐ ☐ Tools should be cleaned annually.
☐ ☐ Defective tools should not be used and should be reported to the immediate supervisor.
☐ ☐ Appropriate personal protective equipment (PPE) is required any time a hand tool or a power tool is being used.
☐ ☐ Rotating or moving parts of equipment are guarded to prevent physical contact with the operator.
☐ ☐ The manufacturer’s recommended safety precautions for any tool must be followed.
☐ ☐ All cord-connected, electrically operated tools and equipment must be effectively grounded unless they are of the approved double insulated type.
☐ ☐ Using the “right tool for the right job” can help prevent injuries.
☐ ☐ Portable fans must be fully guarded with screens having openings of no larger than ½-inch.
☐ ☐ Supervisors and other managers of the City of Burlington are required to address hazards involved with each hand tool or powered hand tool and help employees protect themselves from those hazards.
☐ ☐ Employees of the City of Burlington are required to correctly use and maintain all PPE issued to them in order to prevent injury or illness.
☐ ☐ Supervisors and other managers of the City of Burlington will re-train an employee who has demonstrated insufficient knowledge in the safe use of hand and power tools in such a way that could cause injury to himself or others.
☐ ☐ It shall be the responsibility of each MANAGER to administer appropriate disciplinary action to any employee who fails or refuses to comply with approved safe work practices, up to and including termination of employment, under authority of City of Burlington ordinance Sec. 2-399(1)(k).