# MACHINE OPERATION SAFETY

# EFFECTIVE DATE: 03/15/86, REVISED: 09/14

# 1. MACHINE GUARDING AND MECHANICAL SAFETY

# A. GENERAL REQUIREMENTS

Machine guarding shall be provided to protect the operator and other employees in the machine area from injury as a result of coming into contact with moving parts in the mechanical motions of the machines.

### B. HAND TOOLS

Use the correct tool for the task at hand. Keep landscaping tools in good condition. Use tools in the manner they are intended to be used. Store tools in a safe place. A safe cutting tool is one that is sharp and clean. Tool handles should be smooth and strong. Shovels, spades, and other digging tools should have parts that are smooth and properly shaped.

#### C. ELECTRIC LANDSCAPING TOOLS

Read the operator's manual carefully before switching on the tool. If a tool is equipped with a three-hole grounded receptacle, a three-wire extension cord should be used.

Never use electrical power tools in the rain or when grass or shrubs are wet. Do not abuse the flexible electrical cord. The cord should be draped over the shoulder while the tool is in operation. Never carry a tool by the receptacle. Always use a cord heavy enough to carry proper current. Be sure to avoid cutting the cord with the tool or equipment.

When using the trimmer: (1) get into a comfortable position, (2) use both hands, (3) avoid cramped spaces, (4) take your time; do not force the work, and (5) do not overreach or lean off of a stepladder. When you leave, even for a coffee break, take the trimmer with you if there is any chance that some unauthorized person might try using them.

# D. HAND AND PORTABLE POWERED TOOLS AND OTHER HAND-HELD EQUIPMENT

(1) General requirements:

All hand and portable powered tools and equipment shall be maintained in a safe condition free of worn or defective parts.

(2) Point of operations guards:

All portable powered tools capable of receiving guards and/or are designed to accommodate guards shall be equipped with such guards so as to prevent the operator from having any part of his/her body in the danger zone during the operating cycle.

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- (3) Power cut-off and pressure control devices:
  - a. Woodworking tools -- Hand-held, power-driven woodworking tools shall be provided with "deadman" control, such as a spring actuated switch, valve, or equivalent device so that power will be automatically shut-off whenever the operator releases the control.
  - b. Electric tools (general) -- Portable electric tools which are held in the hand shall be equipped with switches of a type which must be manually held in the closed position (Refer to the Lockout/Tagout Procedure).

## E. GASOLINE POWERED EQUIPMENT

Gasoline is made for one purpose - to create an explosion, thereby releasing energy for power. When used improperly, gasoline can cause death and destruction. The following points should be followed when handling gasoline:

- (1) Never use gasoline for cleaning floors, tools, cloths or hands. Gasoline is only to be used in engines as a source of energy.
- (2) Always store gasoline in an approved closed container. Never use an open container, glass or other breakable container.
- (3) Pouring gasoline from one container to another may generate a charge of static electricity.
- (4) Gasoline spills should be cleaned up immediately to prevent accumulation of vapors. Do not allow electrical switches to be turned on until the gasoline vapors have dispersed. Electrical devices that start automatically, such as cold water fountains, may be shut off at the main switch if the main switch can be pulled safely.
- (5) If gasoline is spilled on a person, remove the saturated clothing immediately and keep the person and clothing away from sources of ignition. Wash the affected area of skin with soap and water to avoid a skin rash or irritation. If the eyes are involved, flush them with water and get the person to a doctor.
- (6) Gasoline tanks or equipment parts that are likely to contain gasoline should be drained or dismantled only out of doors or in a well-ventilated area free from sources of ignition.
- (7) Never smoke in fueling areas, fuel system servicing areas, maintenance areas, bulk fuel delivery areas or similar locations.
- (8) Never dispense gasoline into the fuel tank while the engine is running or if the motor is hot.
- (9) Never store equipment with fuel in the tank inside a building where vapors could reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
- (10) Never run an engine indoors.
- NOTE: Gasoline powered mowers and tractors should meet the standards of <u>American</u> <u>National Standard B71.1, Safety Specifications for Power Lawn Mowers, Lawn and</u> <u>Garden Tractors, and Lawn Tractors.</u>

# F. USE OF LADDERS

- (1) Prior to using a ladder, safety check it for loose, broken, or missing guides, locks, pulleys, rungs, screws and bolts. Look for split or defective rails, splinters, frayed and deteriorated rope or other damage. Discard an unsafe ladder.
- (2) Place a ladder so that the feet rest firmly on a level surface. If the ground is soft or uneven, provide a substantially level base as a support for ladder feet. This surface must not be slippery.
- (3) Extension ladders must be equipped with non-skid safety feet.
- (4) When leaving a ladder against a wall make sure its feet rest away from the wall at a distance approximately 1/4 the working length of the ladder.
- (5) Maintain sufficient overlap between sections of extension ladders:
  3 feet (3') minimum for ladder lengths up to 36 feet; four feet (4') for ladders 36 to 48 feet; five feet (5') for ladders 48 to 60 feet.
- (6) Always face the ladder and grasp it with both hands when climbing or descending. If the ladder is properly placed and it is climbed slowly and steadily, it should not sway or shift. Never climb beyond the third rung from the top of the ladder.

# 2. GROUND MAINTENANCE TOOLS

- A. Tools and machines used in grounds maintenance require that equipment be chosen for its specific purpose. This equipment must be used correctly and maintained properly.
- B. Fuel and hazardous chemicals shall be stored and used properly. Workers shall be thoroughly trained, wear proper clothing and use protective equipment as required. (For information on pesticide usage refer to the Hazardous Material Safety procedure.)