

## **Occupational Safety and Health, SOG 215**

### **OPERATING POWER SAWS**

1. Scope. This standard establishes guidelines for the safe and proper operation of power saws. It was promulgated to:
  - A. Prevent accidents, injuries, or deaths that might result from the improper use or unsafe operation of a power saw.
  - B. Prevent damage to a power saw that might result from unsafe operation or improper use.
2. General.
  - A. Members who respond to an emergency scene, shall be responsible for knowing how to properly and safely operate the power saws used by the department.
  - B. Officers shall train the members under their command in the safe and proper use of the power saws assigned to their apparatus.
  - C. A safety officer shall immediately stop any unsafe or improper use of a power saw and shall take the appropriate action necessary to correct the situation.
  - D. Firefighters shall inspect each power saw carried on their apparatus after each use to ensure that they are clean, functioning properly, and safe to operate. Any power saw discovered to be unsafe or malfunctioning shall be removed from service and properly red-tagged.
  - E. Firefighters shall also be responsible for ensuring that saws are properly fueled and that spare fuel containers are full of the correct gas/oil mixture and in the proper place on the apparatus.
3. Operating Procedures
  - A. Always carry a power saw with the engine stopped or the electrical power disconnected. The blade should be carried to the front with the muffler away from your body.
  - B. Always keep both hands on the control handles, using a firm grip with your thumbs and your fingers encircling the handles.

- C. Make sure of your footing prior to operating a saw.
- D. Always turn off a saw when it is unattended.
- E. Have a plan of action before placing a saw into operation. The plan should include:
  - (1) The location and sequence of the cuts and openings.
  - (2) Wind direction-consider its effects on exposure and personnel.
  - (3) Escape routes-at least two means of egress.
- F. Always place the safety guard in the proper position for the use intended before operating the saw.
- G. Remember that power saw operations are safest when cutting on a horizontal surface near the ground level or on a vertical surface at or below waist level.
- H. Operating a power saw above chest height is extremely hazardous and should not be attempted as a normal course of action. This type of operation should be conducted only under the direct order and supervision of an officer. The officer ordering this operation shall first consider the value to be gained vs. the extreme hazard to personnel.
- I. The use of a power saw from a ladder shall only be done if no other alternatives are available.
- J. Do not operate a power saw close to a highly combustible or flammable material due to the possibility of ignition from sparks.
- K. Do not operate a power saw in flammable or explosive atmospheres.
- L. When operating a power saw, avoid placing side pressure or twisting the blade. Never force the saw. If too much pressure is applied to the blade, the hazard of blade breakage (carbide tipped) or shattering (aluminum oxide or silicon carbide discs) is increased. A blade that breaks or shatters during cutting operations may cause serious injury to the operator or bystanders.

- M. The saw cut should only be as deep as necessary. Deep cuts may weaken supporting beams and lead to collapse. The experienced operator will know when he has reached a beam by the sound and feel of the saw.
  - N. If conditions permit, scrape gravel and debris from the cutting path to reduce the danger of injury from flying chips and loose materials.
4. Safety precautions.
- A. A member who operates a power saw at an emergency incident or during a training session shall wear full protective clothing, including both ear and eye protection.
  - B. A member who operates a power saw for the purpose of inspection or maintenance shall wear ear protection and safety shoes or boots.
  - C. When operating a power saw, all clothing shall be close fitting and completely buttoned to prevent an accident due to moving belts, gears, chains, blades, etc.
  - D. Do not operate a gasoline-powered saw with a fuel leak. Remove the saw from service.
  - E. Do not restart a saw in a small-enclosed space after refueling.
5. Fueling and Maintenance.
- A. Power saws shall be kept clean and in good serviceable condition.
  - B. The cutting wheel, chain, or blade shall be examined at the beginning of each tour of duty and after each use for nicks or defects. These items should also be checked for tightness and shall be kept clean and properly lubricated. Defective items shall be replaced.
  - C. Ensure that abrasive saw blades do not become contaminated with petroleum-based products. Such contamination may dissolve the resin that is used to bond the blade; thus causing the blade to shatter when used. New blades should be stored in plastic bags to ensure cleanliness.
  - D. When fueling a power saw:
    - (1) Always turn the engine off.

- (2) Make sure to use the proper fuel mixture. Many saws require a specific fuel and oil mixture.
- (3) Wipe off the saw to remove any spilled fuel before starting it.