

WOODWORKING MACHINE SAFETY

(For assistance, please contact EHS at (402) 472-4925, or visit our web site at <http://ehs.unl.edu/>)

This SOP is a supplement to the EHS SOP titled, ***Hand and Portable Powered Tool Safety***, which discusses tool and machine safety in general. This SOP summarizes federal Occupational Safety and Health Administration (OSHA) General Industry standards applicable specifically to woodworking machines.

- All belts, pulleys, gears, shafts, and moving parts must be guarded in accordance with the specific requirements.
- Dull, badly set, improperly filed, or improperly tensioned saws must be immediately removed from service, before they begin to cause the material to stick, jam, or kick back when it is fed to the saw at normal speed. Saws to which gum has adhered on the sides must be immediately cleaned.
- All knives and cutting heads of woodworking machines must be kept sharp, properly adjusted, and firmly secured. Where two or more knives are used in one head, they must be properly balanced.
- Bearings must be kept free from lost motion and well lubricated.
- Arbors of circular saws must be free from play.
- Sharpening or tensioning of saw blades or cutters must be done only by persons of demonstrated skill in this kind of work.
- Emphasis is placed upon the importance of maintaining cleanliness around woodworking machinery, particularly as regards the effective functioning of guards and the prevention of fire hazards in switch enclosures, bearings, and motors.
- All cracked saws must be removed from service.
- The practice of inserting wedges between the saw disk and the collar to form what is commonly known as a "wobble saw" is not permitted.
- Push sticks or push blocks are provided at the work place in several sizes and types suitable for the work to be done.
- The knife blade of jointers must be installed and adjusted so that it does not protrude more than one-eighth inch beyond the cylindrical body of the head.
- Whenever veneer slicers or rotary veneer-cutting machines have been shut down for the purpose of inserting logs or to make adjustments, operators must make sure that the machine is clear and other workmen are not in a hazardous position before starting the machine. Operators must not ride the carriage of a veneer slicer.

Exposure to wood dusts can result in eye and skin irritation, dermatitis, respiratory system effects (including hypersensitivity, asthma, suberosis, granulomatous pneumonitis, or acute airway obstruction), and cancer in humans. Therefore, the risk of exposure to wood dusts should be minimized through appropriate control measures.

OSHA has established a Permissible Exposure Limit (PEL) of 15 milligrams per cubic meter (mg/m³) of air for total dust and 5 mg/m³ for the respirable fraction of wood dust. These limits are easily exceeded in woodworking operations, particularly in the absence of appropriate controls.

- Utilize local engineering controls to minimize exposures, including enclosures, tools equipped with dust collection devices, and local ventilation/dust collection systems, and maintain these systems so that they function effectively.
- Avoid dry sweeping of dusts. Use a vacuum system or wet method.
- Do not use compressed air to clean wood pieces or surfaces.
- Avoid inadvertent transport of dusts on equipment or wood pieces. Clean them before they are removed from the work area. Keep the general work area clean of dust accumulations.
- Sanding generates large amounts of dusts that are difficult to effectively capture. If you conduct sanding operations, contact EHS to evaluate your need for respiratory protection. Also contact EHS if you conduct other types of woodworking operations without the benefit of engineering controls.
- Do not eat or drink in woodworking areas.
- Use protective outer garments to avoid contaminating clothing and transporting dusts out of the work area. Eye protection is also required when conducting work that could result in creation of wood chips or dust.
- Wash hands and exposed skin thoroughly after working with wood in dust producing operations.