

EHS Bulletin

November 2019

Laboratory Housekeeping

Housekeeping and cleanliness, components for the success of a laboratory, are often overlooked. A principal cause of laboratory accidents is poor housekeeping.

Spills and accidents are more likely to occur in cluttered workspaces. Laboratory cleanliness and organization are a few essential, safe practices that can save money, time, and protect ourselves from bodily harm for everyone in the laboratory.

Laboratories have the potential to be very dangerous without the added danger of clutter in an unclean laboratory. Boxes and empty chairs can block aisles or emergency equipment and cause potential fire hazards. Using hoods to store chemicals, waste, old samples, or equipment can prevent the fume hood from operating correctly. Benchtops cluttered with tools and glassware are considered a spill and accident hazard. Clutter can take up a usable workspace that can prevent additional productivity.

Setting chemicals out on the benchtops is necessary for getting work done. On the other hand, leaving chemicals out overnight or for an extended period is improper and inefficient. Training laboratory workers to put chemicals in proper storage areas helps everyone find space to work. It also makes finding and making an inventory of chemicals quick and easy. Duplicate ordering can avoided if spaces are clutter free.

Keeping glassware in designated areas also helps prevent accidents. Laboratory staff should not store unclean glassware in sinks and should clean glassware as soon as possible. Proper care reduces the risk of breakage and keeps the sink readily available for washing hands and emergencies. It also allows staff to look for chips and cracks in glassware that need discarding or repair. When glassware is cleaned appropriately, incorrect results can be avoided.

Some recommendations to maintain housekeeping:

- Organize benchtops with large equipment in back, small equipment in front, and allow sufficient space to work safely
- Clear out excessive storage of old chemicals, use the EHS disposal form for removal
- Schedule regular laboratory clean-up at the end of the workday
- Schedule clean-up days to address the larger areas
- Designate a day to organize cabinets and drawers; organize chemicals by groups to avoid hazardous interactions
- Have monthly inspections of the laboratory by the PI or designated worker to find areas for improvement in cleanliness as well as general laboratory safety

Good laboratory housekeeping practices can significantly reduce the risk of accidents and exposures. They also facilitate good relations within the laboratory, improve laboratory technique, and make the laboratory a place to be proud of. Let's make sure each laboratory worker plays their part in keeping a clean and safe laboratory.

Machine Guarding

Machines make our lives easier and more enjoyable, with only the imagination limiting us to what we can design and produce. However, with the advancement of machines sometimes comes with an increased risk of injury. Some people seem to think that these risks are just part of the "gamble for the gain," or the all too often thought, "It won't happen to me." Real experiences prove those thoughts to be false, and Environmental Health and Safety would like to give you a few reminders of what is required to keep our campus safe and compliant. We want you to think about the machines you are responsible for and the machine guarding that is required.

Some helpful tips to keep in mind from OHSA:

- Cover saw blades, even when not in use
- Drill presses, even tabletop, require guarding around the bit
- Protect the person doing the work and those around them
- Fans less than 7 feet above the floor should be guarded
- Guards should have openings no larger than one half inch
- The guards on grinders are adjustable, and as the wheel wears it needs to be adjusted
- The grinder rest must be within 1/8" from the surface of the grinding wheel
- The tongue guard must be within 1/4"
- All turning parts of a lathe must be covered
- Any machine with anchor holes must be anchored, including bench tools
- Pulleys should be covered

The following items could be considered willfully negligent:

- Disabling an interlock device
- Wiring around a safety feature
- Removing any built-in guard
- Do not use power adapters, or remove the grounding receptacle from a plug
- Not following Lockout / Tagout procedures

Current Events

Bloodborne Pathogen Training 2nd Monday of the month, 9-10 am or 2-3 pm EHS Conference Room, 003 UHS Required annually for members under OSHA's standard. Registration: Email name to chemicalsafety@okstate.edu

Respiratory Protection

1st Tuesday of the month, 8:30-9:30 am

FM North Building, Room 101c

Required annually for members who wear respiratory protection.

Registration: Email name to ohsp@okstate.edu

Fire Safety w/ Hands-on Extinguisher Training 2nd Friday of the month, 9:00-10:00 am EHS Conference Room, 003 UHS Come join us for fire safety education featuring the BullsEye laser training device.

Registration: Email name to ohsp@okstate.edu

Monthly Employee Training
3rd Thursday of the month, 9:30-11:30 am
EHS Conference Room, 003 UHS
Topics: Hazcom; Fire Safety; Slips, Trips, and Falls;
Office Safety; and Back Safety
Registration: Email name to ohsp@okstate.edu

For more information or questions about machine guarding, see the EHS website at https://ehs.okstate.edu/machinery-safety.html, by phone at (405) 744-7241 or email at ohsp@okstate.edu.