

UNIVERSITY OF MINNESOTA DULUTH
Equipment-Specific
Standard Operating Procedures (SOP)

General Safe Work Practices for Laboratory Fume Hood

Fume hoods may not adequately protect the worker from **highly toxic** volatile or airborne contaminants with TLV/PEL in the low-part-per-billion range unless stringent controls and practices are in place. Therefore, Laboratories should consult with Environmental Health and Safety prior to conducting any work that involves the use of highly toxic substances (see list in the Lab Safety Plan <http://www.d.umn.edu/ehso/safety/chap6.html>)

For ordinary exposures, properly designed hoods with proper exhaust ventilation can provide adequate protection. However, appropriate work practices are necessary in order for the fume hood to perform correctly. Fume hoods with a low face velocity may not provide complete safety for laboratory workers against all events that may occur in the hood, requests to repair the hood should be sent to FM prior to using it.

The following work practices are generally required; more stringent practices may be necessary under specific circumstances.

- Always monitor fume hood exhaust (face velocity) using the static pressure gauge on the hood or other appropriate indicators to ensure that exhaust flow is adequate.
- Conduct all operations that may generate air containments at or above the appropriate TLV/PEL inside the hood.
- Keep all apparatus at least 6 inches back from the face of the hood. A stripe on the bench surface is a good reminder.
- Do not put your head in the hood when contaminants are being generated.
- Do not use the hood as a waste disposal mechanism; all containers in the hood must be closed tightly when not in use.
- Do not store chemicals or unnecessary apparatus in the hood. Store hazardous chemicals in approved safety cabinets.
- Keep the hood sash closed as much as possible. Work with sash at 18inch height or lower.
- Keep the slots in the hood baffle free of obstruction by apparatus or containers.
- Minimize foot traffic in front of the hood.
- Keep all laboratory doors closed when fume hood is in use.
- Do not place electrical receptacles or other spark sources inside the hood when flammable liquids or gases are present. No electrical receptacles are permitted in the hood.
- Work behind horizontal sliding sash if one exist, and if there is a chance of explosion, eruption, or splashes, etc.
- If for a specific research the hood sash must stay closed, or partially closed for the operation, the hood should be labeled so, and the appropriate closure point clearly indicated.

Additional information for the use and management of fume hoods may be found in your department Laboratory Safety Plan see: <http://www.d.umn.edu/ehso/safety/chap4.html>

Employee Signature

This to certify the employees named below have been trained on this SOP, understands the hazards and safe work practices for safe fume hood operation as detailed above.

Employee Name	Employee Id #	Department