

# FUME HOOD GUIDELINES

The protection provided by laboratory fume hoods is dependent upon two important factors:

- **Proper use of the fume hood, and**
- **Maintenance of adequate airflow through the hood.**

## PROPER USE

- Continually monitor air being drawn into the hood by attaching a kim wipe or light-weight strip of paper to the bottom of the sash.
- Operate the fume hood at the proper sash height
  - This sash height should be the lowest working sash height for the user to ensure optimum protection when conducting operations in the fume hood. A low sash height maximizes air velocity through the hood face and may provide additional protection from unexpected splashes or chemical reactions.
- Avoid using the fume hood for storage of bottles and equipment, especially along the back wall. Any apparatus that must be housed within the hood should fit completely inside the hood. Elevate the apparatus on blocks (at least 2 inches tall) to allow air to flow freely around and beneath.
- Manipulations within the fume hood should be performed at least 6 inches inside the face of the hood or as far towards the back of the fume hood as possible. This minimizes the possibility of contaminants escaping from the hood.
- Fully close the fume hood sash and turn off the fan (if possible) when the hood is not in use. The fan should remain on if volatile materials are being temporarily stored in the fume hood.
- Things which cause air turbulence across the face of the fume hood such as fans, air conditioning units, or excessive movement should be avoided.
- Exhaust hoods do not provide adequate protection for all operations involving toxic materials. A higher level of containment should be used for procedures where minor contamination can be serious. If you are in doubt about the level of containment needed for your operation, ask your Principal Investigator, or contact the Environmental Health and Safety Office (EHSO) at (808) 956-7937.

## MAINTENANCE OF ADEQUATE AIRFLOW

EHSO conducts annual surveys of fume hoods to ensure adequate airflow is maintained through the hood face. Face velocities should be between 80 and 120 feet per minute (fpm) with a sash height of 18 inches. Fume hoods that operate below 80 fpm are considered inadequate and should not be used for protection from toxic or volatile materials.

**If your fume hood is inoperable or have questions about your fume hood, contact the Environmental Safety Specialist at (808) 956-7937.**