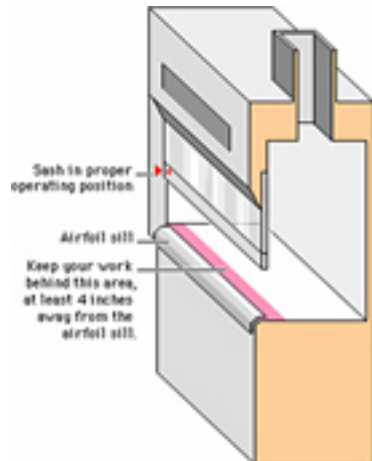


## Fume Hoods - Shut the Sash

### What is a Fume Hood?



Chemical fume hoods are safety devices that protect the worker's breathing zone from hazardous vapors and pollutants released during experimental procedures by removing those vapors and exhausting them outside.

Because there is a large volume of air being exhausted into the atmosphere, a single fume hood can use as much energy as three to four residential homes in a single day. Fume hoods are designed so that when they are not in use the sash should be shut. There is an airfoil sill at the bottom of the sash in all modern fume hoods so that even when the sash is shut, air will still be pulled from the room to exhaust any hazardous vapors.

### Shut the Sash Campaign



The Shut-the-Sash Campaign is a program being implemented by the IUEHS Office and

the IU Office of Sustainability. The goal of this program is to raise awareness in the laboratories about the importance of closing the sash when a fume is not in use.

Shutting the sash will not only improve the energy efficiency of the science buildings but is also an important safety measure. The sash should always be pulled down in front of the face to protect the breathing zone. The lower the sash, the safer the conditions.

### **Shut-the-Sash Stickers**

Each fume hood on campus will be labeled with two stickers that will act as prompts to remind laboratory workers to shut the sash when they are done working. **The green sticker** will remind workers to shut the sash. The second sticker will run vertically on the metal frame beside the sash. **The vertical sticker** has a several purposes:

- It will show the operator where the proper operating height is located.  
(Operating height is approximately 18 inches from the base of the fume hood or where the mechanical stop is located if one is present. Any sash position above that height is for set-up operations only.)
- It will remind laboratory workers to keep their sashes at proper operating height or lower.
- It will remind laboratory workers that the lower the sash, the more energy can be saved.
- It will remind the laboratory workers that lowering the sash during operation provides more safety for the person.

## Myth Busters



**Myth:** A fume hood can be used for storage of volatile, flammable, or odiferous materials when an appropriate storage cabinet is not available.

**Fact:** It is okay to keep chemicals in a fume hood that are being used during a procedure, but fume hoods are not designed for permanent chemical storage. Items placed in the hood can interfere with the air flow, causing turbulence which will allow contaminants to be drawn out of the hood into the room. Fume hoods are not flammables cabinets. They offer no protection from a fire occurring outside the hood in the laboratory.

**Myth:** A fume hood can be used as a waste disposal mechanism (e.g., for evaporation of chemicals).

**Fact:** Fume hoods exhaust vapors into the atmosphere untreated, so it is not appropriate to use a fume hood for waste disposal. Evaporation is considered treatment of hazardous materials and is not allowed by the EPA without a permit.

**Myth:** Fume hood sashes should not be shut all the way even when no one is using the hoods.

**Fact:** Fume hoods are designed for their sashes to be shut all the way. The airfoil sill at the base of the hood will still allow for air to be pulled into the fume hood even with the sash fully closed.

**Myth:** When working with highly dangerous materials, the higher the face velocity the better.

**Fact:** While it is important to have a face velocity between 80 fpm and 120 fpm, a higher face velocity will actually make the fume hood less efficient. High face velocities can create eddy (turbulent) currents that will allow for contaminants to be drawn out of the hood into the room and increase the worker's exposure.