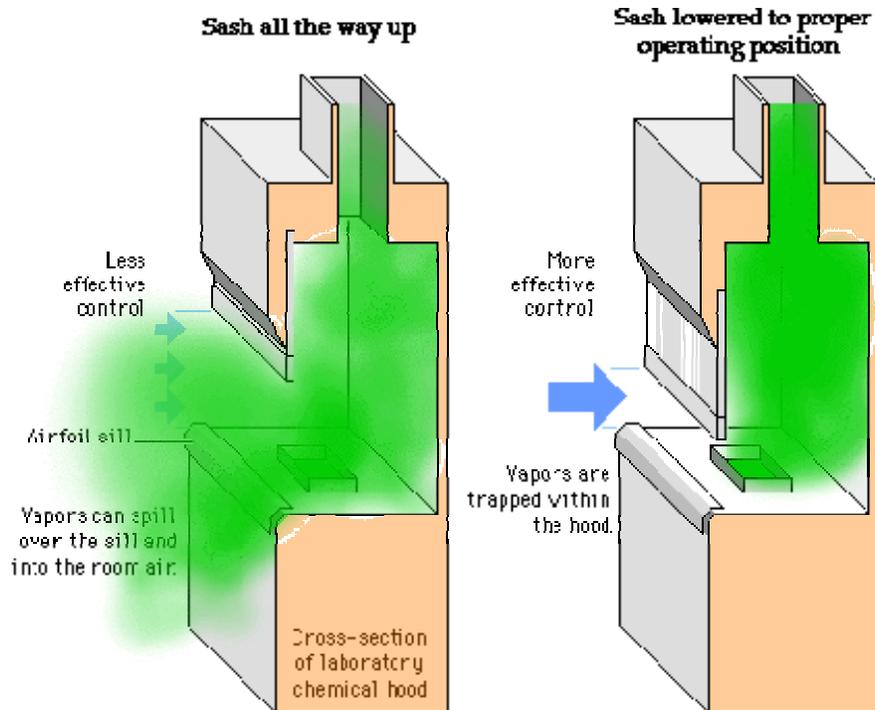


**PHYSICS DIVISION**  
**ESH BULLETIN 04-12**  
**HOOD SAFETY**  
**September 22, 2004**

**Enclosure or Fume Hoods**

Enclosure or fume hoods surround the contaminant sources as much as possible. Contaminants are kept inside the enclosure by air flowing in through openings in the enclosure. General guidelines recommended for hood users include:

- Determine that the fume hood can offer adequate protection from the materials being handled. Consider the need for a glove box.
- Remember that the use of a fume hood does not necessarily preclude the need for other protective measures (i.e., gloves, respiratory protection, etc.).
- Use secondary containment (trays, etc.) with highly toxic materials such as carcinogens. Ensure that the secondary containers do not block the airflow.
- The sash should be kept as low as possible during hood operations; except during apparatus setup and momentary adjustments. Sash height:
  - Maximum = label
  - Minimum = 14"
- Do not lean into hoods during hood operation.
- The Quality Department sash marking for health protection should not be exceeded during hood use. When not using the hood, the sash should be lowered to 2-4 inches from the bottom of the hood.
- All operations and sources of exposure should be kept at least 6 inches back from the face of the hood. A stripe on the bench surface is a good reminder.
- Ensure the bottom baffle slot is at least 2 inches wide and top baffle slot is 1/2-3/4 inch wide.
- Limit equipment and chemical storage in the hood to minimum requirements only. Hoods should not be used for chemical storage.
- If equipment in hood does not have legs, consider placing it on 3-inch blocks or racks to allow airflow underneath.
- Observe air flow indicators prior to use, as an indication that the hood is working. If the hood is not working, discontinue use of the hood and contact the Lab Space Manager or Division Facility Operations Manager.
- Do not remove the hood sash or panels except when necessary for apparatus setup: replace sash or panels before operating.
- Do not remove, block, or seal airfoils. Ensure that the slot under the airfoil is not blocked or sealed off (this ensures proper distribution of airflow to the back slot).
- Minimize foot traffic past the face of the hood.
- Do not place electrical receptacles or other spark sources inside the hood when flammable liquids or gases are present. No permanent electrical receptacles are permitted in the hood unless additional electrical disconnects are located within 50 feet of the hood and are accessible and clearly marked.
- If there is a chance of explosion or eruption, use an appropriate barricade.
- High face velocities (>150 ft/min) may not be beneficial in reducing exposures.



### Fume Hood Checklist

1. Quality Department airflow sticker is present and adequate.
2. Secondary container is present and does not block the airflow.
3. The sash is at or below sash mark for health protection:
  - Maximum = label
  - Minimum = 14"
1. Equipment and chemical storage is not excessive.
2. Airfoil is not removed nor blocked.
3. No permanent electrical receptacles are in hood unless additional disconnect exists.
4. Face velocity is not in excess of 150 fpm.
5. Flow indicator is present.
6. Other protective measures are used where recommended.
7. Worker inspects hood daily.
8. Worker informs supervisor or facility manager when hood fails.
9. Worker identifies hood signs and their significance.
10. Worker identifies important components of hood and their purposes.
11. Worker does not lean into hood during operation.
12. Worker conducts all operations 6" back from the face of the hood.
13. Worker knows the limitations to the variance to flow.