

HOOD ALARMS

Chemical fume hoods as well as Class I and Class IIB biological safety cabinets exhaust air from the laboratory to outside the building. These hoods are equipped with an alarm system to alert laboratory personnel when airflow is inadequate. The alarm system includes a pressure gauge, an audible alarm, and a visual (light) alarm.

When a major reduction in airflow occurs, the gauge will show a change in pressure, the alarm light will glow, and the audible alarm will activate. By design, the audible alarm is loud and annoying. Whenever the warning alarm is activated, providing it is safe to do so, terminate any operations in the hood that pose risk factors (e.g., de-energize mantle heaters, shut off gas flows, etc.) Pull the sash to its lowest position to increase efficiency of reduced-airflow containment. If hood operations that pose risk factors cannot be terminated, evacuate all room occupants and post a sign on doorways that prohibits entrance. Call the Trouble Desk (x1068) and explain the problem. Facilities Maintenance personnel will investigate the cause of the low airflow and correct the problem. The visual and audible alarms will remain on until the problem is corrected. If the hood cannot be brought back to an appropriate exhaust rate, put a sign on the hood reading "DO NOT USE THIS HOOD" to direct others from inadvertently working under potentially hazardous conditions.

All work with hazardous materials should be discontinued until acceptable airflow is restored. If the hood exhaust will be inoperative for a long period of time, Facilities Maintenance staff should be asked to close the blast-gate damper in the duct over the hood to prevent reversal of airflow through the duct into the laboratory. (The reduced air pressure that is maintained in laboratories may cause a backflow; although an unlikely event, negative pressure could cause hazardous materials to be drawn back into the laboratory.)

In 2004, the facility completed a campaign to upgrade chemical fume hood alarm systems. The modified systems include a highly visible orange strobe for a visual alarm. In addition, the audible alarm defect toggle switch was replaced with a timer that automatically resets to alarm status several minutes after activation of the defect switch. These changes eliminate limitations of the prior system.

In summary, anyone working with a chemical fume hood or an exhausted biological safety cabinet should ensure that audible and visual alarms indicate safe status before starting work. It should be obvious to never use a hood that is in alarm status.

If further explanation is desired, please telephone EHS at x1451.

WHEN HOOD ALARM SOUNDS

- 1) Immediately cease hazardous operations in hood, as possible.**
- 2) Pull hood sash to lowest position.**
- 3) Evacuate room if hazardous operations cannot be ceased.**
- 4) Call FME Trouble Desk x1068.**

**DANGER
LOW AIR FLOW
DO NOT USE THIS HOOD**