

POLICIES FOR THE SCIENCE & ENGINEERING BUILDING LABORATORIES

I. INTRODUCTION:

The Science & Engineering Building (SEB) has been architecturally designed and furnished to a strict building standard and with a theme of Science on Display and collaboration. To promote the display of science, the building is fitted with large windows in the laboratories, illuminated public corridor display boards, and areas within the lobby to allow public display of the research going on within the building. The SEB has been built to the specifications for Leadership in Energy and Environmental Design (LEED), silver certification. Components of this include large windows, which allow ample ambient light into laboratory, office, and public areas, as well as building standards commensurate with LEED approved furnishings. SEB seeks to provide guidance and support to its researchers, faculty, and staff on the safe, ethical, and effective use of the facilities. Following proper laboratory procedures is the primary way to ensure safe and energy efficient operation of the laboratories.

II. DEFINITIONS:

SCIENCE ON DISPLAY: Philosophy of teaching, learning, and integrating the study of science and engineering into the very experience of walking through the building.

FIXTURES: Something securely fixed in place or attached to the building as a permanent finishing, apparatus, or appliance.

LEED (Leadership in Energy and Environmental Design): Green Building Rating System, developed by the U.S. Green Building Council (USGBC), which provides a suite of standards for environmentally sustainable construction. Technical criteria for LEED certification are reviewed by USGBC membership for approval and compliance.

HOOD SASH: The sash is the front of the fume hood (glass portion) that has the ability to move up or down.

VACUUM TRAP: A convenient way to trap water and excess condensable vapors that may enter the house vacuum system.

III. POLICY:

A) Assignable Space Usage:

The Science & Engineering Building has large lab spaces which will allow free movement of researchers throughout a common space. With regards to the

placement of items, consideration will always be given to the promotion of collaboration and academic freedom, although the use of the laboratories must accommodate the following:

- 1) Life Safety Code: Fire Code Regulations prescribe that access to exits be maintained free from obstructions.
- 2) Maintenance: Routine cleaning, access to utilities and servicing of equipment cannot be compromised by the location and use of equipment and furnishings.
- 3) Aesthetics: The appearance and cleanliness of the laboratories affects the working environment, efficiency, organization, as well as public and professional perceptions of the University, and can not be unduly compromised. Labs must be kept clean and relatively uncluttered.

B) Placement of Laboratory Equipment, Furnishings, and Postings:

- 1) The SEB laboratory windows placement has been designed to provide an uncompromised view by the public, professional colleagues, and infiltration of ambient light into the interior spaces. Equipment placement must allow unobstructed viewing into the laboratory and infiltration of ambient light. Tall equipment, cabinets, rolling benches with shelving, postings, or any component that blocks the view or light through the laboratory windows conflicts with the Science on Display philosophy, LEED requirements, and aesthetics of the building and therefore will not be allowed.
- 2) Equipment placed in the laboratories must comply will all ADA Regulations. Near doorways, when placing equipment on the hinge side, the doorway shall be allowed to open 90 degrees or greater, to allow the doorway to have a minimum clear opening of 32 inches, measured between the face of the door and the opposite stop. When placing equipment on the handle side, a minimum maneuvering clearance of 18 inches must be maintained from the door stop. All corridors or isles must be maintained a minimum width of 36 inches.
- 3) Wall hangings of any kind in laboratories are not permitted without the permission of the SEB Assistant Director. SEB has several areas of special wall construction which cannot be compromised.
- 4) In order to preserve the integrity of the doors, drilling of nails, screws, or push pins into any door is unacceptable under any circumstances.

C) Placement and Hook-up of Laboratory Equipment and Fixtures:

In circumstances where equipment that exceeds simple plug-in of a duplex outlet, or which hooks to the building mechanical systems, and or the installation of fixtures are considered for placement in the laboratories, the following procedures are applicable: SEE SEB MOD Request Policy for more detail

1) Application for use of such space is to be made in writing use the SEB MOD Request procedure by the Principal Investigator or other appropriate administrative authority to the SEB Assistant Director. After appropriate discussions between the PI and the SEB Assistant Director, the application will be forwarded to the appropriate committees for review, comment, and approval if applicable.

2) If the placement is approved, then the SEB Assistant Director shall then prepare a recommendation in accordance with the general guidelines of public safety, conformance with all relevant building and fire codes, building maintenance, building standards, and aesthetics.

3) Approved applications are subject to ongoing assessment to ensure compliance. The space itself shall remain under the jurisdiction of the SEB Administration. All approvals are conditional and carry no permanent or continuing commitment.

D) Furniture:

The SEB has been furnished to a LEED building standard. The furnishings have been selected for low volatile organic compounds (VOCs), consistency in style, and quality. Furniture users must accommodate the following:

1) Chairs, desk, bookcases, cabinets, benches, or any other item that can be classified as furniture are not to be removed or added without advanced authorization from the SEB Assistant Director. Any furniture that may be considered for removal must be coordinated through the SEB Assistant Director for its physical removal from the lab or office. Office furniture is not allowed in lab spaces and vice versa.

2) Furniture considered for addition to a laboratory must fit within the building standard. Upon request of furnishings, the requestor will be provided an approved list of items and their associated cost. The SEB Assistant Director will then work with the requestor to get the items ordered. For any requested item not found on the approved furniture list, consideration of the building standard and LEED requirements will be followed during the procurement process.

E) Elevators:

The Freight Elevator must be used to transport carts, chemical and biological specimens, gas cylinders and tanks, and equipment. The Passenger Elevators is never to be used to transport these items as it solely for the use passengers.

F) Hood Sash Management

Laboratory fume hoods are designed to protect laboratory personnel by preventing contaminants such as chemical vapors, dusts, mists and fumes from escaping into the laboratory environment. They also provide lab personnel with a safety physical barrier to chemicals and their reactions. SEB hoods are equipped with a state of the art variable volume system which manages the air flow through the hood while still providing an adequate face velocity to protect the user. This system has the potential to save UNLV up to \$6,000 per hood per year if the sash is managed properly. The less conditioned air the hood pulls from the building directly relates to big energy saving. Closing the hood sash after use, or keeping the sash as low as possible while working will not only provide an extra level of safety, but will save big money off UNLV's operating budget. It is imperative that hood sash be closed or kept low during use in order to save energy, save money, and keep everyone in the laboratory safe.

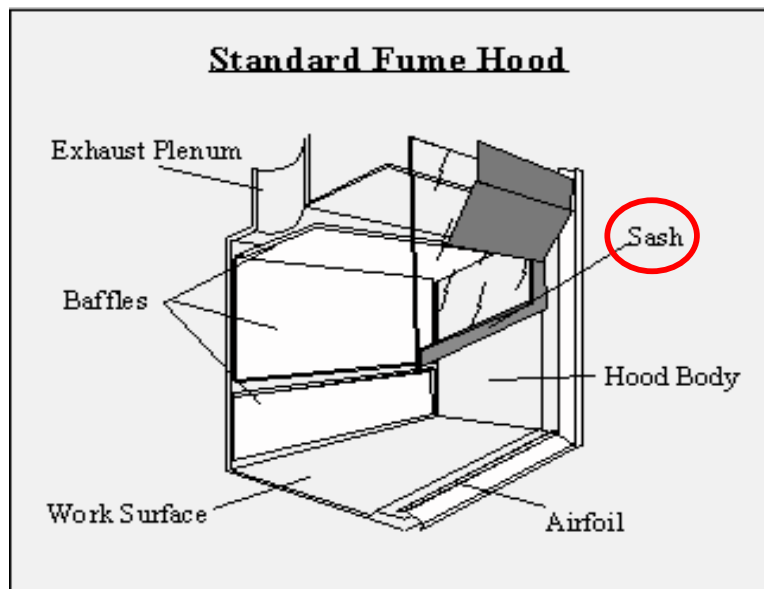


Figure 1 Basic features of a standard fume hood.

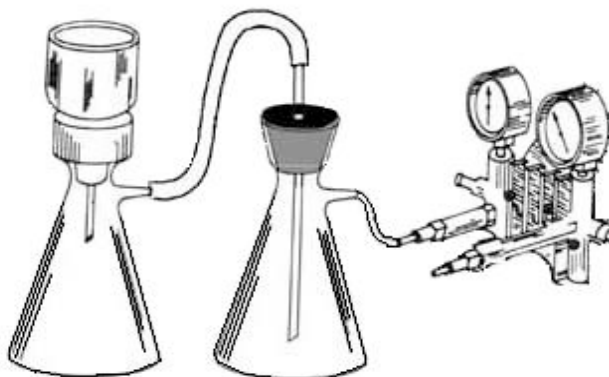
Materials (supplies, equipment, etc.) in the fume hood typically reduce hood efficiency. Therefore, it is prudent to remove all materials not required for the task at hand.

G) Vacuum Trap Use

When using a vacuum source, it is essential to place a trap between the experimental apparatus and the vacuum source.

The vacuum trap

- Protects the pump and the piping from the potentially damaging effects of the material
- Protects people who must work on the vacuum lines or system, and Prevents vapors and related odors from being emitted back into the laboratory or system exhaust



FILTRATION FLASK

F) Custodial Services:

Any laboratory group who chooses to refuse regular UNLV custodial services within their laboratory will be responsible to maintain their restricted area with regard to general upkeep and aesthetics. The appearance and cleanliness of the laboratories affects the working environment, efficiency, organization, as well as public and professional perceptions of the University, and must be maintained to the highest standard within SEB. Supervised custodial services may be a consideration for laboratories which require limited to no access by UNLV facilities and whose appearance conflicts with SEB's image and science on display philosophy.

Approval Date: 06/21/10

Last Amended: 01/21/11

Authority: SEB Committee