

## 10.0 CHAPTER 10 – WHOLE BUILDING SAFETY

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As laboratories are obviously just a portion of a whole building, the PI and lab workers should familiarize themselves with aspects of the building which are not necessarily restricted to their own labs, but which can impact their work or their neighbors' work. Included among such building issues are the following:

- Access
- Ventilation (including air supply, exhaust and distribution)
- Plumbing
- Emergency Equipment

### 10.1 Access

Corridors, stairways and exits are important to all persons in the building. Of special interest in the biohazard laboratory is control of access to the laboratory; doors must be kept closed while all BSL-2 or greater work is in progress.

### 10.2 Ventilation

All UCSB laboratories are constructed with single-pass air (100% exhaust through the roof to the outside) and sufficient air volume to exchange the air several times per hour. Laboratories are also designed to be negatively pressured with respect to areas of lower hazard, such as corridors and offices.

It is the policy of the IBC that all work which requires BSL-2 or higher containment be conducted in laboratories which are negatively pressured with respect to their surroundings. As a rule, this includes work involving human or primate tissue culture.

### 10.3 Plumbing

- About one liter of water should be poured down each of the drains regularly (once per month) to ensure that the traps do not dry out.
- Vacuum systems must be fitted with HEPA filters to prevent biohazardous materials from being sucked into the system.
- Industrial water is normally used in laboratories. If, however, domestic water is plumbed into a laboratory, a valve that prevents backflow must be installed on each line that feeds into the sinks. This is essential to protect others on campus, as well as the community at large.
- Where a hose is attached to the faucet, it must not extend below the top of the sink.

### 10.4 Emergency Equipment

Fire alarms and detection systems, fire sprinkler systems, eyewashes, douse showers and emergency shut-offs are all installed to make UCSB buildings a safer place to work. Each person should familiarize themselves with the location and use of the emergency equipment provided in their building. Since these resources are subject to communal use, all the PI's and lab workers who share the building carry equal responsibility for their proper use and operation. EH&S must be consulted by any UCSB department that is considering implementation of a new design and construction.