

LABORATORY FUME HOOD USER PROCEDURES

1.0 PURPOSE

To ensure proper operation and effectiveness of the fume hoods for testing and annual certification. Cal/OSHA General Industry Safety Order 5143(a)(5) requires mechanical ventilation systems to be tested after initial installation, alterations, or maintenance, and at least annually. The annual inspection records are required to be maintained for at least five years.

2.0 SCOPE

This procedure is applicable to all staff and faculty who use a laboratory fume hood at CSUEB.

3.0 RESPONSIBILITY

3.1 Department of Environmental Health and Safety (EHS)

- 3.1.1 Develop, implement, revise, and enforce this procedure.
- 3.1.2 Respond appropriately to any emergency fume hood calls.

3.2 Department of Facilities Management – Engineering

- 3.2.1 Responsible for annual fume hood face velocity test certification per fume hood.
- 3.2.2 Fill out and submit service request to correct any deficiencies that cannot be corrected by minor system adjustment(s) during testing procedure.
- 3.2.3 Document annual fume hood face velocity test per standard campus form entitled “Fume Hood Evaluation Form.”
- 3.2.4 Provide scheduled preventive maintenance for fume hoods.
- 3.2.5 Maintain maintenance and annual certification records for at least five (5) years.

- 3.2.6 Respond immediately to fume hood fan failures to protect building occupants from manifold backflow and to restore service to users.
- 3.2.7 Inspect indicator light panels daily to verify hoods are working before users arrive. Users normally arrive at 8:00 a.m.
- 3.3 University Police Department (UPD)
 - 3.3.1 Contact the on call EHS staff person after normal working hours to report any fume hood fan failure.
 - 3.3.2 Contact an Engineer using the existing Facilities Management call back procedures, if it becomes necessary.
- 3.4 Applicable Departments with Users
 - 3.4.1 Contact EHS for any questions regarding this procedure.
 - 3.4.2 Understand and follow this procedure.
 - 3.4.3 Report any fan failures during the hours of 6:30am – 4:30pm to Facilities Maintenance, ext. 5-3794 or 5-4444.
 - 3.4.4 Report any fan failures during the hours of 4:31pm – 6:29am and all day Saturday and Sunday to the Department of Public Safety, dial 911.

4.0 PROCEDURES

- 4.1 Use Perchloric acid in a fume hood only approved for its use. The perchloric acid crystals may detonate in the hood ductwork. Contact Department of Facilities Management and EHS regarding an approved fume hood for perchloric acid use.
- 4.2 Have radioisotopes fume hood use approved by our campus Radiation Safety Officer (RSO). Contact the Department of Environmental Health & Safety @ ext. 5-4139 for further instructions.
- 4.3 Operate the hood at the proper sash height. An arrow indicating the proper sash height is located to the left of the hood.
- 4.4 Certain fume hoods must be operated during after hours (10:00pm-6:00am) at half the normal sash height. The hood fan speed is decreased for energy conservation purpose. The hood fan number is located on the

upper right corner. **See Appendix I for the list of fume hoods that operate after hours.**

- 4.5 Do not use the hood as a storage cabinet. Keep materials to a minimum inside of hood. Allow at least 3 inch space between containers or equipment. Only materials actively in use should be in the hood.
- 4.6 Do not place bulky equipment around the sidewalls of the hood. Bulky equipment should be placed towards the rear of the hood.
- 4.7 Raise large equipment at least 2 inches off work surface on legs.
- 4.8 Keep spark sources and electrical receptacles outside of hood.
- 4.9 Keep sash face clean and clear.
- 4.10 Do not block airfoils (lower front and the sides of the hood).
- 4.11 Set up work at least 4-6 inches behind the plane of the sash to avoid turbulence at sash edge.
- 4.12 Never put your head inside an operating fume hood.
- 4.13 Close sash when finished with hood work or when leaving experiments or chemicals unattended. This will allow a potential fire or explosion to be contained within the hood.
- 4.14 Flush water into the cup sink periodically. Dry traps contribute to odors.
- 4.15 Never dispose of chemicals in the cup sink.
- 4.16 **Report immediately any fume hood fan malfunction(s). The occupants of the room with the failed system are subjected to back flow from the fume hood exhaust manifold. The fume hood exhaust manifold backflow presents a potential toxic hazard exposure.**

If you have any questions regarding this procedure, contact EHS at 5-4138.