



UNDER THE MICROSCOPE

The Dartmouth College laboratory safety newsletter

Contact EHS for specific questions,
646-1762 or e-mail ehs@dartmouth.edu



Hazard Awareness for Laboratory Visitors

Oversight

Responsibility for lab safety lies with the Principal Investigator (PI). The PI must communicate the specific hazards which any visitor (undergraduate, contractor, etc.) unfamiliar with the lab, may encounter in the course of their visit or work.

All relevant laboratory policies and procedures need to be reviewed.

Training

As part of communicating hazards, the PI must provide appropriate training and personal protective equipment (if needed) before the visit or work begins.

The training needs to be specific to the hazards involved (Safety Data Sheets for chemicals, types of biological hazards which may be encountered or if radioactivity is used and how to minimize any exposure).

Other potential hazards such as heat, pressure, electrical safety and cryogenic dangers need to be discussed.

All training needs to be documented (what was discussed, when, where and with whom) and kept on file in the lab or with the PI.

Emergencies

If an accident occurs or there is concern of a possible exposure, report the incident promptly by filling out an accident report and contacting EHS for assistance.

Fire or medical emergency – Dial 911
Chemical, biological or radioactive incident : 646-1762

EHS after hours emergency pager : 603-442-1058

Contractor Handout

Basic safety guidelines for contractors/visitors working in laboratories: *PIs – Use this sheet as an informational hand out*

In addition to possible hazardous materials and equipment, some labs may contain sensitive experiments that could be destroyed by exposure to light, temperature changes, or contamination from the outside environment.

Coordinate your work with the PI or lab manager to protect yourself, the occupants, and their research. Explain the work that will be performed, especially any actions that could affect lab operations.

Give advanced warning for the following possibilities:

- Utility shutoffs, so sensitive materials/experiments can be protected with alternative power sources
- Work with equipment that may generate heat or sparks, so flammable materials can be removed
- Work that may generate airborne particles or vapor that could contaminate experiments or cause indoor air quality problems
- Wait for lab personnel to clear the work area of hazardous materials and contamination before beginning work.
- Do not move research equipment or chemicals without direct assistance or approval from laboratory personnel.
- Contact your supervisor and wait for instructions if lab personnel are unavailable to move equipment or chemicals from your work area. Do not start work until specifically cleared to do so.

Take these steps to protect yourself from hazards when working in an occupied laboratory:

- Wear appropriate personal protection equipment at all times, including gloves, eye protection, and a lab coat or coveralls
- Do not eat, drink, or apply cosmetics in a lab.
- Wash your hands after leaving a lab.
- Expect extra precautions for work in “clean rooms.” Clean rooms are special facilities where animals, experiments, or equipment are highly susceptible to everyday germs, dust, and dirt. You may be asked to wear coveralls, a gown, a mask, or other protective gear to protect research from possible contamination.
- Locate the nearest fire extinguisher, or keep an ABC extinguisher by your work area. An ABC extinguisher is located near the exit door of most labs.
- Do not work near hazardous waste containers or work surfaces labeled with biohazard, radioactive, carcinogen, or other specific warning signs.

Fume Hoods

Researchers often perform chemical processes within a chemical fume hood enclosure.

The fume hood captures hazardous gases, vapors, and fumes generated by the work and removes them via the building's ventilation system.

Follow these guidelines for work inside a fume hood:

- ① Do not disturb or remove equipment or materials from a fume hood.
- ② Wait for laboratory staff to remove equipment and supplies from the fume hood and decontaminate the inside surface. The PI or lab manager will determine whether the fume hood has been used for work with heated perchloric acid before ANY work can be done.
- ③ Wear disposable gloves (nitrile) and eye protection. Disposable coveralls are recommended. Immediately dispose of the gloves after use.
- ④ Be alert for the possibility of asbestos-containing materials. Hard gray panels on the inside of older hoods may be made of transite, which contains asbestos. Removal of transite or other asbestos must be coordinated with EHS.

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