

# Environmental Health and Safety Manual (EHS)

## EHS 104: Laboratory Use of Hazardous Chemicals

Effective: 5/1/1990

Revised: 3/31/2014

### Purpose

To protect laboratory employees from exposure to hazardous chemicals in the workplace, to ensure proper handling and storage of potentially hazardous chemicals, and to comply with the requirements of the Arizona Division of Occupational Safety & Health regulations related to use of hazardous chemicals in a laboratory

### Sources

*29 Code of Federal Regulations, § 1910.1450*

*Occupational Exposures to Hazardous Chemicals in Laboratories*

### Applicability

All ASU employees, facilities and operations

### Policy

All laboratories as defined in this policy will register with the Environmental Health and Safety Department (EHS), update that registration annually, maintain inventory records of potentially hazardous materials, and comply with the requirements of the *ASU Chemical Hygiene Plan (CHP)*.

### Responsibilities of Environmental Health and Safety

EH&S develops, implements, and maintains the university's CHP, provides and/or ensures the availability of laboratory employee safety training, conducts and/or ensures laboratory safety inspections to determine compliance status, and promotes regulatory compliance and a safe laboratory environment.

### Responsibilities of the Departments and Units

Departments and units must register all laboratories as defined in this policy, maintain inventories of hazardous chemicals, and identify laboratory employees who may be exposed to hazardous chemicals and require these employees to attend laboratory chemical safety training prior to initial assignment and to comply with the CHP.

The provisions of the CHP must be implemented within individual laboratories to fulfill the requirements mandated under the Occupational Safety and Health Administration's (OSHA) *Occupational Exposures to Hazardous Chemicals in Laboratories* standard (*29 Code of Federal Regulations § 1910.1450*).

## Responsibilities of Employees

Laboratory employees who use chemicals during the performance of their duties must use safe work practices, use appropriate personal protective equipment, attend laboratory safety training (see the Environmental Health and Safety Training Schedule), and comply with all provisions of the CHP.

## Definitions

### Laboratory

A facility or room where the use of potentially hazardous chemicals, biological agents, or sources of energy (i.e., lasers, high voltage, radiation, etc.) used for scientific experimentation, research, or education occurs.

### Hazardous Chemical

A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term “health hazard” includes chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic systems, and agents that damage the lungs, skin, eyes, or mucous membranes. Appendices A and B of the *Hazard Communication Standard* (29 CFR 1910.1200) provide further guidance in defining the scope of health hazards and determining whether or not a chemical is to be considered hazardous for purposes of this policy.

## Procedures

The department’s dean, director, or chair, principal investigator, or designee obtains and reviews the current ASU *Chemical Hygiene Plan* (CHP) available on the EHS Web site and ensures compliance with all applicable requirements.

The department’s dean, director, or chair, principal investigator, or designee registers each laboratory under his or her control with EHS annually, ensures that laboratory employees complete required training, and addresses all laboratory safety inspection findings.

## Cross-References

For more information, see:

1. [EHS 103](#), “Hazard Communication Program”
2. [EHS 105](#), “Personal Protective Equipment”
3. [EHS 108](#), “Environmental Health and Safety Training”
4. [EHS 205](#), “Storage of Hazardous Chemicals”
5. [EHS 403](#), “Chemical Release Emergency Response”

and

6. [EHS 405](#), “Laboratory Check-in/Check-out.”

See also the *Police Department Policies and Procedures Manual*—[PDP 104-01](#), “Laboratory Emergencies.”