

University of Alaska Anchorage	Section EHS/RMS
ADMINISTRATIVE SERVICES MANUAL	Part Policy
Policies and Procedures	Statement 3
Title <i>LABORATORY SAFETY STANDARDS</i>	Effective Date 10/09/09

*Safety
Responsibilities*

It is the responsibility of all UAA departments that operate laboratories as defined in this section to develop and implement a laboratory safety policy. A well-designed policy includes a chemical hygiene plan, employee training, a provision for medical consultations and examinations. The Environmental Health and Safety Department is available for consultation in the development of this policy.

Scope

This policy applies to all departments that use laboratory chemicals on a laboratory scale. However, it will not apply where the only laboratory use of a hazardous chemical provides very limited potential for employee exposure (medical and dental labs using prepackaged test kits and dipsticks and biology labs that occasionally use reagents). However, the [Bloodborne Pathogens Standard](#) may apply and [Hazard Communication Standard](#) will be applied for those areas not covered under the Laboratory Safety Standard. Additional information is available in the [Laboratory Safety Management Procedure](#). Please consult with EHS if you need clarification of the applications.

Prudent laboratory practices ensure the presence of a qualified individual onsite during academic or research activities in laboratories. This includes direct supervision of new and inexperienced employees.

In most instances, the laboratory standard will preempt existing substance specific standards (i.e., benzene, formaldehyde, ethylene oxide, lead, hazard communication, etc).

Definitions

The following terms are critical to understanding the scope and applicability of the standard.

Laboratory is a facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

Laboratory Scale is work with substances in which containers used for reactions, transfers and other handling of substances are designed to be

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easily and safely manipulated by one person. This excludes workplaces whose function is to produce commercial quantities of materials.

*Chemical
Hygiene Plan*

This is the focal point of the laboratory safety standard and deserves major attention. The plan must protect employees from health hazards associated with hazardous chemicals in the laboratory; keep exposures below the limits specified in the standard; and be readily available to employees. It should include each of the following elements:

1. Procedures for prior approval before starting lab operations. chemicals.
2. Chemical hygiene officer appointed to implement the plan.
3. Standard operating procedures for work with hazardous chemicals including emergency procedures related to a chemical exposure and/or spill.
4. Criteria and control measures to reduce exposure to hazardous chemicals.
5. Fume hoods use and inspection along with and other protective equipment.
6. Special employee protection provisions for particular hazardous substances.

UAA has established a comprehensive written [Chemical Hygiene Plan](#) that can be modified for department use. In addition, a [Chemical Standard Operating Procedure \(SOP\) Form](#) has been developed. That form needs to be completed for each chemical and or process covered under the Chemical Hygiene Plan. While departments and colleges are not required to use the plan and form as written, all aspects of them must

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be reflected in any alternate plans adopted for use. The chemical hygiene plans developed by each department are subject to annual review for effectiveness and compliance by EHS/RMS.

*Employee
Training and
Information*

All employees must be trained and informed about the chemical hazards in the work area. This must be provided upon initial assignment to a work area and prior to any new potential exposure situations. Training and information will include the following:

1. Content of the lab safety policy and procedures: general work practices and safe work habits.
2. Content, location and availability of the chemical hygiene plan.
3. Permissible or recommended exposure limits for OSHA regulated substances or other toxic non-regulated substances.
4. Symptoms associated with exposure to chemicals in their work area.
5. Location and availability of reference materials on the hazards, safe handling, storage and use of hazardous chemicals used in their work area.
6. Methods and observations that may be used to detect the presence or release of hazardous chemicals.
7. Physical and health hazards of chemicals in the work area.
8. Measures employees can take to protect themselves from chemical hazards.
9. Department implemented procedures.

Medical

Employees who work with hazardous chemicals must be given the

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*Consultation
and Examination*

opportunity to receive [medical attention and follow-up examinations](#) by or under the direct supervision of a licensed healthcare provider. Contact EHS/RMS (786-1351 or ayssg@uaa.alaska.edu) for additional information. These exams must be provided without cost to the employee under the following circumstances:

1. Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the lab.
2. Where monitoring reveals an exposure level routinely above the action level or 50% above the permissible exposure limit for an OSHA or DOL regulated substance.
3. Whenever an event such as a spill, leak or explosion takes place in the workplace and results in the likelihood of a hazardous exposure.