

College of Forestry 360: Special Precautions

Safety Policy & Procedure Manual
Section 300: Laboratory Safety
Effective: 01 January 2007
Revised: 20 June 2006

PURPOSE

The purpose of this section is to ensure that all persons involved in laboratory activities understand any and all special precautions of their job assignments including those listed under this section

Background Information

Laboratory training in special precautions is regulated under Oregon Administrative Rules Oregon Occupational Safety and Health Division, Division 2, subdivision D (437-007-0300).

Applicability

All academic, research, students, and visitors in the College of Forestry

Procedure

Hazardous Work

1. Procedures in each laboratory will be evaluated by the Lab Supervisor/PI and the Laboratory Chemical Hygiene Officer, and those that are deemed hazardous (e.g., use of significant quantities [10 x LD (lethal dose) 50] as defined on MSDS's or SARA Title III chemicals, Appendix 13) or as determined by the Laboratory Chemical Hygiene Officer will be identified in the Laboratory Chemical Hygiene Plan.
2. All hazardous operations are to be performed while at least two people are present at the laboratory (or lab area if documented in the Laboratory Chemical Hygiene Plan).

Allergens, Embryotoxins and Teratogens

1. Areas where such agents are used will be identified by a standard caution sign.
2. Wear suitable gloves to prevent hand contact and wear other protective gear (e.g., lab coats) when exposed to allergens.
3. Allergens and embryotoxins will be stored in adequately ventilated areas in unbreakable secondary containers.
4. Handle reproductive toxins only in a hood with a current (within 1 year) inspection label and use protective equipment to prevent skin contact as prescribed by the Lab Supervisor/PI and the OSU Chemical Hygiene Officer.
5. The Lab Supervisor/PI and the Laboratory and OSU Chemical Hygiene Officers will be notified of significant spills and other personal exposure incidents.

Chemicals of High Acute Toxicity

1. Areas where these chemicals are stored and used will have restricted access and have [specific] warning signs naming the hazard types.
2. Vacuum pumps when used with these chemicals must have scrubbers or High Efficiency Particulate Absolute (HEPA) filters.
3. Approval of the Lab Supervisor/PI will be obtained before initiating a new procedure using these chemicals.

Chemicals of High Chronic Toxicity

1. Such chemicals will be maintained in labeled, unbreakable, chemically resistant containers and stored in a limited-access area appropriate for the chemical.

2. Areas where such agents are used shall be identified by a sign on the hood, glove box, or lab area.
3. The Lab Supervisor/PI will be knowledgeable of chemicals in use and will approve new procedures prior to implementation.
4. Vacuum pumps when used with these chemicals must have scrubbers or High Efficiency Particulate Air (HEPA) filters.
5. Any contaminated equipment or glassware will be decontaminated as soon as possible and before further use.
6. For powders, a wet mop or vacuum with a HEPA filter will be used for cleanup, and the waste will be immediately disposed of.

Animal Research

1. All chemicals used in the animal caging/holding areas must be noted in the animal use protocol approved (prior to use of chemicals) by the Institutional Animal Care and Use Committee.
2. The PI is required to work with Lab Animal Resources (7-2263) and the OSU Chemical Hygiene Officer (7-2274) to:
 - a. Develop procedures for the appropriate handling of animals, their wastes, cages, and disposal of the animal to prevent personnel exposure to the contaminant. Assure that personal protective equipment (per protocol) is worn by all persons handling these materials.
 - b. Prepare animal hazard warning signs which are to be posted in the animal housing area.
3. Notify Lab Animal Resources before each use of the chemical agent in animals (i.e., when first initiating use and when beginning again after a layoff, to assure them Lab Animal Resources staff are aware of the impending usage).
4. Administer chemical substances by injection or lavage when possible, rather than by diet. When administration by diet is used, a caging system under negative pressure or under laminar air flow directed through High Efficiency Particulate Air (HEPA) filters will be used.
5. Use procedures to minimize contaminated aerosols from food, urine and feces, including:
 - a. Use HEPA filtered vacuum equipment for cleaning;
 - b. Moisten contaminated bedding before removal from cage.

6. Wear plastic or rubber gloves and fully buttoned lab coats or coveralls in the animal room and when working with exposed animals.
7. For large scale studies with animals administered chemicals of high chronic toxicity, special facilities with restricted access must be used (call OSU Chemical Hygiene Officer at 7-2274).

Radiologicals

The OSU Radiation Safety Office (call 7-2227) is responsible for all radioactive substances and places *additional* restrictions on chemical substances or agents referred to in this Plan that are also radioactive.

Recombinant DNA

1. The OSU Biosafety Committee may place *additional* restrictions on certain experiments involving recombinant DNA.
2. The University BioSafety Officer should be contacted (7-2502) should be contacted regarding notification and approval procedures.

Infectious Agents

1. All laboratories using biological material at containment level I and containment level II must use the guidelines prescribed in the NIH/CDC handbook, *Biosafety in Microbiological and Biomedical Laboratories*. All Research Laboratories using organisms and animals at containment level III must file operating protocols with the University BioSafety Officer. (see Reference 10)
2. All laboratories using level II biological containment hoods must have hoods certified by a competent hood testing agency at least every six months (the University Purchasing Department can direct hood users to competent hood testing agencies.)
3. Infectious laboratory waste from laboratories must be autoclaved or chemically sterilized before being placed in the University waste stream.
4. Specific controls for using blood-borne pathogens are required by OR-OSHA and are detailed in Appendix 18