

UNLV Lab Specific Safety Procedures

OSHA Regulation: 25 CFR 1910.1450 (Laboratory Standard)

This regulation states that employee training shall consist of general training on the employer's written chemical hygiene plan and specific procedures to protect employees from hazardous chemicals. All employees that work in laboratories must take the general UNLV Chemical Hygiene Training. Other employees who may work with hazardous substances, for example, maintenance workers, are required to take Hazardous Communications (Hazcom). The regulation requires that training include methods that may be used to detect the presence or release of hazardous chemicals, the associated health hazards of the hazardous substances, measures that the employees (students or visiting researchers) may take to protect themselves from the substances in the laboratory. These measures include actions, such as appropriate work practices, emergency procedures, and use of prescribed personal protective equipment. Supervisors, Lab Managers and Principle Investigators (PIs) have an obligation to provide additional training on specific hazards of specialized projects in each laboratory. The UNLV Chemical Hygiene Program emphasizes the importance of this in the executive summary stating "investigators must develop laboratory specific training, practices, and procedures for the specific experiments being conducted."

UNLV Lab-Specific Safety Procedures must be developed, and workers must be trained in the procedures. The training must be documented and signed by the PI and the worker(s), students or visiting researchers. Hazardous substances, hazardous processes and protective measures must be listed and described in the procedure. Principal Investigators may choose the format of their lab specific safety procedures while keeping the above requirements in mind. Examples to aid in writing SOPs are provided as Appendices to this document.

Appendix A is a guide for writing an SOP

Appendix B is a template for writing an SOP

Appendix A

GUIDELINES FOR PREPARING SOP's

Of the many methods that can be used to write SOP's the following are three examples:

1. By **Process**: (distillation, synthesis, chromatography, etc.)
2. By **Individual Hazardous Chemical**: (arsenic, benzene, hydrochloric acid, etc.)
3. By **Hazardous Chemical Class**: (flammable, corrosive, oxidizer, etc.)

Sections of the SOP:

- **Section 1**: Process, Hazardous Chemical, or Hazard Class (check one). [Information Guide](#)
- **Section 2**: Describe Process, Hazardous Chemical, or Hazard Class. [Information Guide](#)
- **Section 3**: Potential Hazards. [Information Guide](#)
- **Section 4**: Personal Protective Equipment. [Information Guide](#)
- **Section 5**: Engineering Controls. [Information Guide](#)
- **Section 6**: Special Handling and Storage Requirements. [Information Guide](#)
- **Section 7**: Spill and Accident Procedures. [Information Guide](#)
- **Section 8**: Decontamination Procedures. [Information Guide](#)
- **Section 9**: Waste Disposal Procedures. [Information Guide](#)
- **Section 10**: Material Safety Data Sheet Location. [Information Guide](#)
- **Section 11**: Protocol(s). [Information Guide](#)

Appendix B (A useful template for organizing and writing an SOP)

STANDARD OPERATING PROCEDURE

Procedure Title	
Procedure Author	
Date of Creation/ Revision	
Name of Responsible Person	
Location to be Performed (building/lab #)	

#1	Process or Experiment Description
#2	Risk Assessment
#3	Safety Equipment
#3a	Engineering/ Ventilation Controls:
#3b	Personal Protective Equipment and Other Safety Equipment:

#3c Location of Nearest Emergency Safety Equipment:

Item	Location
Eyewash/ Safety Shower	
First Aid Kit	
Chemical Spill Kit	
Fire Extinguisher	
Telephone	
Fire Alarm Manual Pull Station	

#4 Designated Area

#5 Step-by-Step Operating Procedure

#6 Special Handling Procedures and Storage Requirements

#7 Decontamination

#8	Emergency Procedures
#9	Waste Disposal
#10	Training Requirements
#11	Approval Required