4.0 INFORMATION AND TRAINING

The OSHA Lab Standard requires that individuals who will be working with chemicals in the laboratory be provided with sufficient training to enable them to conduct their work safely. Training must be provided prior to the time when individuals begin their duties involving chemicals and whenever there is a significant change in the types or quantities of chemicals used. Departments and, ultimately, principal investigators (or laboratory supervisors) are responsible for ensuring that all individuals working in their laboratories have been adequately trained.

The University Office of Environmental, Health, and Safety Management (EHS) provides Laboratory Safety and Chemical Hygiene training to the university community. The schedule is found at www.ehs.indiana.edu/training_sessions.shtml. This comprehensive training is designed to cover the topics required by the OSHA Lab Standard (Section 4.1) and more.

This training, however, is not intended to be the sole means of training laboratory workers but must be supplemented by additional safety instruction from the principal investigator (or laboratory supervisor) on the potential hazards associated with an individual’s specific duties. See section 4.2 Training Resources that are also available.

4.1 Required Training Content

The general training topics required by the Lab Standard are the:

- Content of the Lab Standard.
- Location and availability of the Laboratory Chemical Safety Plan (i.e., Chemical Hygiene Plan).
- Permissible exposure limits (PELs) for OSHA regulated substances (see Appendix A) or recommended limits for other materials that have no OSHA limits.
- Signs and symptoms associated with chemical exposure.
- Location and availability of known reference material on the hazards, safe handling, storage, and disposal of chemicals. This includes, but is not limited to, Safety Data Sheets (SDS).
- Methods to detect the presence or release of chemicals.
- Physical and health hazards of chemicals.
- Measures that laboratory workers can take to protect themselves from chemical hazards, including control measures, personal protective equipment, SOPs, and emergency procedures.
4.2 Training Resources

The University Office of Environmental, Health, and Safety Management (EHS) provides Laboratory Safety and Chemical Hygiene training to the university community. This comprehensive training is designed to cover the topics required by the OSHA Lab Standard and more. This training, however, is not intended to be the sole means of training laboratory workers but must be supplemented by additional safety instruction from the principal investigator (or laboratory supervisor) on the potential hazards associated with an individual’s specific duties. This individualized training should include a review of the laboratory’s safety features and equipment (Form LCS-2 in Appendix B has been prepared to assist principal investigators in this process). For information on other safety training resources available from EHS (such as specialized training sessions, videotapes, safety guides, chemical references, and Safety Data Sheets (SDS), individuals should call (812) 855-6311. See partial list of resources below:

DVD & VHS Video

**Elements of Safety**
(The Training Network/J.T. Baker)
- Orientation to Lab Safety
- Safety Showers and Eyewashes
- Flammables and Explosives
- Electrical Safety in the Laboratory
- GHS Safety Data Sheets in the Laboratory
- Laboratory Hoods
- Preventing Contamination
- Safe Handling of Laboratory Glassware
- Planning for Laboratory Emergencies
- Compressed Gas Cylinders
- General Laboratory Safety
- The OSHA Lab Standard
- The OSHA Formaldehyde Standard
- Laboratory Ergonomics

**Hazardous Waste Management at Laboratories and Research Facilities**
(Excal Visual)

**Indiana University Laboratory Safety Guides**

- Laboratory Chemical Safety Plan
- Chemical Spill Response Guide
- Hazardous Waste Management Guide
- Institutional Biosafety Manual

- **The Keys to Laboratory Safety**
  (Industrial Training, Inc.)

- **Practicing Safe Science**
  (Howard Hughes Medical Institute)

- **Safety in the Research Laboratory**, (Howard Hughes Medical Inst.)
  - Assessing Risks
  - Centrifugation Hazards
  - Chemical Hazards
  - Chemical Storage Hazards
  - Emergency Response
  - Glassware Washing Hazards
  - Radionuclide Hazards

- **Special Handling - Particularly Hazardous Substances in the Laboratory**
  (Target Training Technologies)
  - General Principals
  - Control and Protection
  - Spills and Disposal

- **Radiation Safety Manual for Radioactive Material Users**
- **Laser Safety Guide**
- **Radionuclide Fact Sheets**
4.3 Training Documentation

 Departments and principal investigators are responsible for documenting the safety training provided to individuals working within their laboratories. For each individual, a record should be maintained not only for formal training sessions attended such as the EHS Laboratory Safety Orientation, but also for informal safety instruction or training provided in the laboratory (Form LCS-3 in Appendix B may be used for this purpose).

 The University Office of Environmental, Health, and Safety Management (EHS) maintains training records of everyone that attends the required introductory OSHA training provided by EHS. Original sign-up sheets and a database of training records are maintained by EHS. These records can be found at www.ehs.indiana.edu/lab_safety_training.shtml.