**Appendix X-1. Lab-specific Training Documentation**

**HOW TO DEVELOP LAB-SPECIFIC SAFETY TRAINING**

**Summary**

The laboratory supervisor (Principal Investigator, Lab Manager, others) play an important role in keeping personnel safe while at work in the laboratory under the supervisor’s watch. The written Chemical Hygiene Plan and Laboratory Safety Manual adapted by the University of South Carolina specify the supervisor’s responsibility of providing lab-specific safety training. The goal of a lab-specific safety training is to teach personnel how to recognize and address specific hazards that exist in a specific laboratory workplace. Specific instructions on recognizing hazards, implementing controls and following precautionary measures and guidelines are necessary to protect personnel from injury and property from damage arising from accidents or misuse of hazardous materials.

Lab-specific training must be: (1) documented and (2) provided to all laboratory personnel at the time of initial assignment and every time a new hazard is introduced in the laboratory.

**How to Use this Template**

Guidance text provided in **gray** should be modified and adapted to reflect information specific to your laboratory. The template below may be used to develop a lab-specific training curriculum and for documenting the training. After reviewing the training goals in the left-hand column, describe in the right-hand column how your lab fulfills these goals. As topic discussions are completed, trainer must initial the corresponding column and include any comments. This template may be used for one or more individual if the training was performed for all individuals on the same day.

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|  | Training Goal | How Lab Fulfills Training Goal  | Trainer initial once completed and any comments |
| Training | Ensure completion of all required safety trainings before beginning lab work. The Principal Investigator may allow lab personnel who were provided Lab-specific training to start working in lab while waiting to attend the next available EH&S Chemical and Lab Safety training if ALL of the following is true: 1. Personnel will not work with HF, laser, isotopes, x-ray and human blood and bodily fluids that may contain bloodborne pathogens
2. Class and work schedule conflicts with EH&S Chemical and Lab Safety trainings scheduled within the month of initial appointment but training will be completed within 60 days
3. Work with highly hazardous chemicals, equipment and processes is covered in the lab-specific safety training
 | Identify required training for each new lab personnel. At the minimum, should include completion of:* Chemical and Lab Safety
* Hazardous Waste
* Lab-Specific Training

Additional safety training may be required depending on hazards handled: HF, BSL-2 agents, human blood and bodily fluids that may contain bloodborne pathogens, isotopes, laser, x-rays, *etc*.NOTE: For minors who plan to work in the lab for 3 months or less and are under direct supervision of an experienced lab personnel, the Chemical and Lab Safety training may be waived. The PI or Lab Manager provides lab-specific training including ALL topics listed within this document. |  |
| Safety Roles | Know the health and safety responsibilities of the Principal Investigator, Group safety officer, and all group members. | Describe the process for discussing and addressing health and safety concerns in the lab. Include information on expectations for all lab members.Identify additional key personnel for the building and/or department such as the Facilities manager, Safety Coordinator, EH&S, Human Resources, etc. |  |
| Safety Info | Know the content of the Chemical Hygiene Plan and Lab Safety Manual (CHPm) and sign the clearance form. Know where to find safety data sheets (SDS), standard operating procedures (SOPs), user manuals for equipment, journals, textbooks, etc. | Identify and list how to locate relevant safety resources. Focus on resources specific to the lab such as a lab-specific CHPm, SDS binder, SOPs, equipment manuals, etc. |  |
| Lab-Specific Hazards | Know the specific hazards that exist in the lab and which hazards are covered by existing SOPs. | In this section provide a basic overview of ALL hazards present in the lab and any controls, precautions or alarms that all lab members should be aware of. For example, gas detection system for toxic gases, door interlock with laser, biosafety cabinet for infectious agents, etc. |  |
| Lab Operations | Know the Chemical Hygiene Plan SOP requirements and the lab’s method for identifying highly hazardous chemicals, equipment and processes and developing, reviewing and maintaining SOPs. | Highly hazardous chemicals, equipment and processes should have written SOPs. This section should review the method by which these materials and processes are identified and how to develop and maintain written SOPs. |  |
| Read, understand, show proficiency in all aspects of written SOPs for hazardous materials, equipment and processes handled.  | Provide personnel with approved written SOPs for use of highly hazardous materials, equipment and processes that he/she will be working with. Discuss SOPs thoroughly, answering questions sufficiently, should they arise. Personnel must show proficiency in implementing all sections of the SOPs and sign off on the written SOPs as an authorized user. |  |
| Know the lab’s chemical ordering, storage, usage, and disposal procedures. | Include: Where lab chemicals are stored, how they are properly stored, segregated in storage cabinets/ locations, the system used for maintaining chemical inventory, and where hazardous waste is collected, how only compatible chemicals are collected in a waste container, proper waste labeling and procedure for requesting waste pick-up. |  |
| Know what are the required personal protective equipment (PPE) (gloves, safety glasses, lab coat) for working in the lab, including how they are selected for specific hazards, where they are stored and how to maintain them. | See the [USC Personal Protective Equipment policy](https://sc.edu/about/offices_and_divisions/ehs/documents/ppe-policy-for-research-laboratories.pdf). If PPE is not required at all times, then identify the areas, times, and/or situations when eye protection, proper lab attire, etc. are not necessary.  |  |
| Know the rules for being trained on and authorized to use the lab’s specialized equipment, e.g., centrifuge, rotary evaporator, glove box, etc. | In most cases, equipment should have separate SOPs which can be used in conjunction with any user manuals as a training tool for that piece of equipment. List specific equipment here. |  |
| Know the lab’s list of prudent practices or “Do’s and Don’ts”. | For example, what are the lab rules regarding propping open lab doors, food storage, break areas, working after hours, working alone, cleaning up after yourself, etc.  |  |
| Emergency Equipment & Procedures | Know where to find safety equipment, how to test, and how to activate and use them. | Include spill kits, fire extinguishers, emergency alarm boxes, emergency eyewash and showers, and first aid kits. List safety equipment relevant to your lab in this box and either describe location or as part of training show new lab personnel the location during lab walkthrough. Describe how they are tested and maintained and the procedure for activating and using the equipment. |  |
| Know the procedures for chemical, fire, and other emergencies. | Include:* What to do if splashed by chemicals?
* What to do if chemicals are spilled?
* What equipment do I need to quickly turn off before evacuating (heat sources, gases, vacuums, etc.)?
* Where is the Emergency Assembly Point (EAP)?
* What are at least two evacuation routes out of the building?
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| Know the incident and injury reporting procedures. | Include:* Who to report the incident to
* How to obtain and complete an incident report
* How to call 911 from a campus phone and cell phone
* How to contact the Environmental Health & Safety
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**C E R T I F I C A T I O N**

The following individual/s completed the *(Principal Investigator name)* Laboratory’s **Lab-specific Safety Training**

(as described in *pages* 1-4 of this document) on ( date )

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| --- | --- | --- |
| **Trainee’s Name** | **Signature** | **Date** |
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Training provided by: ( Name \_\_\_ ) Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_

Principal Investigator: ( Name \_\_\_ ) Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_