

# **STANDARD OPERATING PROCEDURE**

## **Personal Protective Equipment in Laboratories**

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### **1.0 INTRODUCTION**

The **Federal Occupational Safety and Health Administration (OSHA)** ensures workplace safety through the enforcement of established federal legislation. Personal Protective equipment (PPE) is utilized to reduce employee exposure to hazards when engineering and administrative controls are not feasible or effective in reducing the exposures to acceptable levels. Employers are required to determine if PPE should be used to protect their workers, provide the equipment, and ensure its use.

The **California Occupational Safety and Health Administration (Cal-OSHA)** operates as the acting regulatory enforcement body under the direction of the OSHA Act. In 2010 new rules were proposed as a result of an audit conducted by OSHA on the effectiveness of Cal-OSHA safety and health enforcement and regulatory programs. Cal-OSHA realized that it had not adopted equivalent rules to the federal requirements dealing with PPE hazard assessment and training. Therefore under the Occupational Safety and Health Act of 1970 the new requirements to ensure equivalency with federal OSHA in this area were adopted. Pursuant to this regulation, Chapman University has established this Standard Operating Procedure, (SOP) regarding Personal Protective Equipment (PPE) requirements for all campus laboratory workers/employees.

### **2.0 PURPOSE**

Chapman University is committed to providing a healthy and safe working environment for all members of the campus community. This Personal Protective Equipment (PPE) Standard Operating Procedure (SOP) is designed to prevent workplace injuries and illnesses for all faculty, staff, students, and visitors.

This SOP under the new rule requires the supervisor to assess the workplace to determine if hazards are present and select the PPE for their workers/employees based on an assessment of the hazards which their workers/employees are likely to encounter in the workplace. Supervisors will also be required to inform their workers/employees of the selection decisions and to have their workers/employees follow those decisions when obtaining the PPE which properly fits the affected worker/employee.

### 3.0 DEFINITIONS

**Administrative Controls:** Methods of controlling employee exposures by job rotation, work assignment, time periods away from the hazard, or training in specific work practices designed to reduce the exposure.

**Engineering Controls:** Methods of controlling employee exposures by modifying the source or reducing the quantity of contaminants released into the work environment.

**Hazardous Materials:** Hazardous materials, for the purposes of this SOP, are mainly chemical that have been identified as a health or physical hazard.

**Laboratory/Technical Areas:** A laboratory/technical area is any location where hazardous materials or equipment may present a potential hazard or may be used or stored. It includes, but is not limited to:

- Research laboratories
- Teaching laboratories
- Stock rooms
- Waste accumulation areas/locations
- Storage rooms
- Cold rooms
- Vivaria
- Loading docks
- Shipping/Receiving locations

**Non-Laboratory area:** Workplace where hazardous materials are present in minimal quantities or in consumer packaging (toner cartridges, spray cleaners, etc.). Hazardous activities are also minimal. Slips, trips and falls, back injuries, and being struck by an object would be examples of the primary hazards.

**Personal Protective Equipment (PPE):** Personal protective equipment is equipment worn to minimize exposure to a variety of hazards. Examples of PPE include such items as lab coats, gloves, foot protection (steel-toed shoes), eye protection (safety glasses or goggles), protective hearing devices (earplugs, muffs), hard hats, respirators, fall protection harnesses, etc.

- **Body Protection** - Protective clothing, such as lab coats, should be worn when handling hazardous materials. This will prevent the contamination of skin and clothing
- **Eye/Face Protection** - Equipment designed to provide protection to the face and eyes during exposure to such hazards as flying particles, molten metal or sparks, liquid chemicals, acids or caustic liquids, or potentially injurious light radiation (i.e., lasers, welding, etc.)
- **Foot Protection** - Equipment designed to provide protection to the feet and toes during exposure to situations with the potential for foot injuries such as falling or rolling objects, chemical or liquid exposures, piercing objects through the sole or uppers, and/or where the employee's feet are exposed to electrical hazards.

- **Hand Protection** - Equipment designed to provide protection to the hands during exposures to potential hazards such as sharp objects, abrasive surfaces, temperature extremes and chemical contact. Hand protection is selected based upon the hazard and performance characteristics of the gloves.
- **Respiratory Protection** - Equipment designed to provide protection to the wearer from potential inhalation hazards such as vapors, mists, particulates, and gases.

**Physical Hazards:** Physical hazards are identified as substances, equipment, or activities that can threaten physical safety. Physical hazards can include but are not limited to: impact (falling objects), fall hazards, extreme pressures, temperature extremes (heat/cold), radiation (ionizing and non-ionizing), noise, vibration, electrical, light (optical), welding, cutting, brazing).

**Supervisor:** An employee who may have authority to hire personnel, evaluate performance, direct work assignments, apply progressive discipline, direct resources to correct identified safety issues. This would include a principal investigator, area manager, unit manager, project manager, superintendent, and foreman/person. Unless defined in writing, the default “supervisor” in laboratory/technical areas is the Principal Investigator.

**Use and Storage:** For the purposes of this Policy, “Use and Storage” includes those operations where workers are directly manipulating hazardous materials, adjacent to or in proximity to a hazard or in areas where there is a reasonable risk of exposure. Reasonable risk of exposure includes all activities identified in the hazard assessment that pose an exposure risk to the worker.

**Worker/Employee:** For purposes of this policy, a worker/employee is an individual who actively performs work functions and thereby excludes those passively participating in tours, lectures, conferences, etc. A “worker” may be faculty, staff, volunteer, visitor/visiting scholar, or a paid student.

#### 4.0 GENERAL PROGRAM REQUIREMENTS

**Perform Hazard Assessment:** Each supervisor shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). Each supervisor shall verify that the required workplace hazard assessment has been performed through a written certification using the Laboratory Personal Protective Equipment (PPE) Assessment Tool, (**LPPEAT**) that identifies the PPE; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.

**Identify Required PPE:** Each supervisor, based upon the hazard assessment, shall ensure that the appropriate personal protective equipment has been identified. The PPE must be the proper fit and design for the user and not interfere with the ability of the worker to work safely. The PPE will be provided to the worker at no cost.

**Training:** Each supervisor will assure workers know how to properly wear, adjust and maintain assigned PPE. Workers will demonstrate understanding of the proper use of assigned PPE. Training will be documented.

**Maintenance and Replacement:** Each worker is responsible for properly wearing required PPE. Each worker is responsible for informing their supervisor when worn or damaged PPE needs to be replaced.

**Evaluating the Appropriateness of Identified PPE:** Each supervisor is responsible for periodically re-evaluating the selection and use of PPE in work areas under their control. The hazard assessment should be repeated when new hazards are identified or introduced into the workplace annually or at least every three (3) years.

## 5.0 ADDITIONAL REQUIREMENTS FOR LABORATORIES/TECHNICAL AREAS

The following minimum PPE requirements pertain to all laboratories/technical areas where storage and use of hazardous materials occur or a physical hazard exists. (See Definitions)

## 6.0 MINIMUM PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

**Body Protection:** Full length pants, or equivalent, and closed toe/heel shoes must be worn at all times by all individuals who are occupying or entering a laboratory/technical area. The area of skin between the shoe and ankle should not be exposed.

Laboratory coats, or equivalent protective Garments, are required to be worn while working with, or adjacent to, all bench top procedures using hazardous materials. Laboratory coats must be appropriately sized for the individual. Coats should be buttoned to their full length. Laboratory coat sleeves must be of a sufficient length to prevent skin exposure while wearing gloves.

Flame resistant (FR-rated) laboratory coats must be worn when working with pyrophoric materials or large amounts of flammable liquids as described in the hazard assessment. Laboratory coats shall not be laundered at private residences or public laundry facilities. Any protective clothing that becomes contaminated with hazardous materials must be decontaminated before it leaves the laboratory or appropriately discarded. Departments are responsible for providing suitable laundry services to maintain required laboratory coats.

**Eye/Face Protection:** Eye and/or face protection must be worn when hazardous materials are handled, when eye injurious activities are undertaken, or when required by the hazard assessment. All protective eyewear must meet American National Standards Institute (ANSI) standards and be appropriate for the work being done. Typical prescription spectacles are not suitable eye protection. Prescription safety glasses are available through individual campus procurement offices.

**Hand Protection:** Protective gloves must be worn while using any hazardous materials, hot or cold liquids, or objects that pose a risk of thermal burns, cryogenics, physical hazards, or equipment that may cause hand injury. These gloves must be appropriate for the material or process being used. The Material Safety Data Sheets (MSDSs) for the material should be referenced when determining the type of glove to be used. The manufacturer-specific glove guide should also be consulted to determine appropriate glove type.

**Other Operations:** Some operations and procedures may warrant additional PPE, as indicated by the Material Safety Data Sheets, MSDSs, and the standard operating procedures for the material being used, facility policies, regulatory requirements, or the hazard assessment. These might include face shields, aprons, respiratory protection, hearing protection, etc.

**Exceptions:** There are exceptions from these requirements, including the defining of specific hazardous materials handling areas within rooms, may be permitted under certain conditions and will require express, written approval from EH&S and/or the appropriate campus safety committee, following individual campus policy.

## **7.0 COMPLIANCE/RESPONSIBILITIES**

Each supervisor has the responsibility to protect his/her employees from injury. Hazards should be evaluated, controlled or eliminated if possible, prior to the start of any work where hazards have been identified. If hazards may not be eliminated, then guards and protective equipment should be utilized to ensure the safety of workers/employees.

**The Chancellor** has overall responsibility for compliance with health and safety requirements at all facilities and programs under her/his control.

**Deans/Associate Deans** are responsible for communicating, promoting and enforcing the SOP in areas under their control.

**The Science Safety Committee** is responsible for promoting a safe working environment in all research and teaching laboratories on campus.

### **Principal Investigators (P.I.)/Supervisors**

- Each supervisor should complete a Laboratory Personal Protective Equipment Assessment Tool, (*LPPEAT*) for the activities in his/her area to identify potential hazards and methods for their elimination. Hazard assessments for PPE will be conducted initially or when work practices change, reviewed annually, and maintained in the “Laboratory Safety Manual”
  - The supervisor must train and determine, based on the, *LPPEAT*:
  - When the PPE is necessary
  - The correct type of PPE necessary to perform work activities in a safe manner.
  - How to properly wear and adjust the PPE
  - The limitations of the PPE
  - The proper care, maintenance, useful life and disposal of the PPE.
  - Each supervisor must train his/her employees regarding

### **Faculty, Staff, Students, Visitors and Volunteers**

- Each individual is responsible for wearing his/her required PPE as identified by the supervisor, as a result of conducting a hazard assessment.
- Each individual is responsible for maintaining and storing his/her PPE in a clean and sanitary condition.
- Each individual must ensure that his/her PPE is in good operating condition before wearing it.
- Each individual needs to communicate to his/her supervisor any unforeseen hazards requiring additional PPE.
- Each individual needs to report to his/her supervisor any defective PPE or need for replacement.

- They are responsible for informing others in the area of these requirements and reporting unsafe conditions to their supervisor, or EH&S. Workers are NOT responsible for purchasing their own PPE.

### **Environmental Health & Safety**

- Is responsible for providing interpretation and clarification regarding this SOP.
- Will also provide consultation and tools to assist supervisors in performing the hazard assessment and with developing training.
- Provide assistance to supervisors, PI's, in completing the *LPPEAT*, evaluating job hazards, or selection of appropriate PPE

### **8.0 RELATED INFORMATION**

- 1) 8 CCR 3380 Personal Protective Devices: (See <https://www.dir.ca.gov/title8/3380.html>)
- 2) 8 CCR 5191 Laboratory Standard: (See <https://www.dir.ca.gov/title8/5191.html>)
- 3) 8 CCR 5194 Hazard Communication: (See <https://www.dir.ca.gov/title8/5194.html>)
- 4) 8 CCR 3203 IIPP: (See <http://www.dir.ca.gov/title8/3203.html>)
- 5) 8 CCR 5209: Select Carcinogens and Regulated Carcinogens: (See <http://www.dir.ca.gov/title8/5209.html>)
- 6) Reproductive Toxins: (See [http://oehha.ca.gov/prop65/prop65\\_list/Newlist.html](http://oehha.ca.gov/prop65/prop65_list/Newlist.html))
- 7) Toxic or Highly Toxic chemicals: (See [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_id=9761&p\\_table=STANDARDS](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=9761&p_table=STANDARDS))

### **9.0 LABORATORY PERSONAL PROTECTIVE EQUIPMENT (PPE) ASSESSMENT TOOL**

See attached

### **10.0 PROGRAM APPROVAL AND REVIEW**

*Date Reviewed:* DRAFT presented November 22, 2013, Karen Swift, EH&S Manager

**Chapman University      *Laboratory Personal Protective Equipment (PPE) Assessment Tool***

<i>Principal Investigator:</i>	<i>Department:</i>	<i>Building Rooms:</i>
<i>Lab Contact Name:</i>	<i>Assessment Completed By:</i>	<i>Signature: Date:</i>
<i>Phone:</i>	<i>Reviewed by/Responsible Person</i>	<i>Signature: Date:</i>

This form must be completed by the PI, Lab Supervisor, or their designee to conduct a laboratory hazard assessment specific to activities in their laboratories. The laboratory hazard assessment identifies hazards to faculty, staff and students specifying personal protective equipment (PPE) to protect them during work activities.

This assessment consists of two sections.

**Section 1:** Laboratory PPE Assessment

**Section 2:** Conduct PPE Training

PIs/Lab supervisors are responsible for enforcing PPE requirements. Should you need assistance completing this form or with reviewing it after you have completed it, please contact EH&S at 714 628-2888 or [swift@chapman.edu](mailto:swift@chapman.edu)

***Section 1: Laboratory PPE Hazard Assessment***

In this section, the PI or Lab Supervisor will:

- Conduct a hazard assessment of the laboratory using the PPE Assessment Tool. The Tool will assist to identify activities when PPE is needed to protect anyone from exposure to hazards.
- Certify the hazard assessment for the laboratory by signing the table above.
- The following checklist provides an overview of lab activities with associated potential hazards and generic recommendations for PPE. Describe the specific PPE your lab uses for each hazardous activity performed in your lab. Refer to Safety Data Sheets, (SDSs) for specific information regarding the potential hazards for each chemical/hazardous material and guidance of PPE

**CHEMICAL HAZARDS**

*Minimum PPE: Lab coat, long pants or equivalent, safety glasses, closed-toed shoes, disposable 4-mil nitrile gloves or appropriate chemical resistant gloves<sup>4</sup>. Operations may need to be performed inside a fume hood.*

(√) If applies	Examples of some activates which may be performed in the laboratory (Modify to fit your needs)	Potential Hazard	Check PPE Selected
	Working with highly diluted (<1%) organic solvents, corrosives or flammable organic compounds.	Irritant.	<input type="checkbox"/> Safety glasses or goggles where splashing may occur.
	Working with any amount of undiluted corrosives (acids, bases).	Skin or eye damage	<input type="checkbox"/> Safety goggles w/ face shield where splashing may occur. <input type="checkbox"/> Chemical resistant gloves.
	Working with smaller volumes (<1L) of organic solvents or flammable organic compounds.	Potential respiratory, skin, or eye damage; potential poisoning through skin contact.	<input type="checkbox"/> Use safety glasses or goggles. Use face shield where splashing may occur. <input type="checkbox"/> Chemical resistant gloves.
	Working with larger volumes (≥1L) of organic solvents or flammable compounds, work which creates a splash hazard. <sup>1</sup>	Potential respiratory, skin, or eye damage; potential poisoning through skin contact. Fire.	<input type="checkbox"/> Safety goggles w/ face shield. <input type="checkbox"/> Use 15-mil thick non-disposable chemical-resistant gloves <sup>4</sup> (nitrile). <input type="checkbox"/> Flame-resistant lab coat, if flammable Refer to SOP.
	Working with small quantity of toxic or hazardous chemicals (solid, liquid, or gas). <sup>1,2</sup>	Potential respiratory, skin, or eye damage; potential poisoning through skin contact.	<input type="checkbox"/> Safety glasses/ goggles <input type="checkbox"/> Light chemical-resistant gloves <sup>4</sup> <input type="checkbox"/> Glove with Silver Shield underneath disposable glove. <input type="checkbox"/> Refer to SOP
	Working with air or water reactive chemicals.	May give off toxic gases, heat, and energy. Potential inhalation, skin and eye damage. Fire.	<input type="checkbox"/> Work in inert atmosphere or inside glove box, where possible. <input type="checkbox"/> Goggles w/ face shield. <input type="checkbox"/> Chemical-resistant gloves <sup>4</sup> . <input type="checkbox"/> Flame retardant lab coat. <input type="checkbox"/> Blast shield. <input type="checkbox"/> Refer to SOP.



### CHEMICAL HAZARDS

*Minimum PPE: Lab coat, long pants or equivalent, safety glasses, closed-toed shoes, disposable 4-mil nitrile gloves or appropriate chemical resistant gloves<sup>4</sup>. Operations may need to be performed inside a fume hood.*

(√) If applies	Examples of some activates which may be performed in the laboratory (Modify to fit your needs)	Potential Hazard	Check PPE Selected
	Working with an apparatus with contents under pressure or vacuum _____ (mm of Hg, psi, or torr).	Eye or skin damage.	<input type="checkbox"/> Goggles w/face shield. Use blast shield for high risk activities. <input type="checkbox"/> Chemical-resistant gloves <sup>4</sup> / apron if chemicals are involved. <input type="checkbox"/> Refer to SOP
	Working with high temperature equipment or objects.	Burns, fire.	<input type="checkbox"/> Safety glasses. <input type="checkbox"/> Thermal insulated gloves.
	Working with cryogenic material.	Burns, frostbite, eye damage.	<input type="checkbox"/> Safety glasses w/ face shield. <input type="checkbox"/> Thermal insulated gloves.
	Minor chemical spill cleanup.	Potential skin, eye, respiratory damage.	<input type="checkbox"/> Safety glasses or goggles. <input type="checkbox"/> Chemical-resistant gloves <sup>4</sup> . <input type="checkbox"/> Chemical-resistant apron. <input type="checkbox"/> Refer to SOP for additional PPE requirements. Contact Public Safety 714 997-6367 EH&S for assistance.
	Explosive materials are not currently used. Please contact EH&S prior to the purchase and work with these materials	Detonation, flying debris, skin and eye damage. Fire.	<input type="checkbox"/> Safety goggles w/ face shield and blast shield. <input type="checkbox"/> Chemical resistant gloves. <input type="checkbox"/> Flame retardant lab coat. <input type="checkbox"/> Refer to SOP.
	Pyrophoric materials are not currently used. Please contact EH&S prior to the purchase and work with these materials	Fire. Potential inhalation, skin and eye damage. Severe burns.	<input type="checkbox"/> Work in inert atmosphere or inside glove box. <input type="checkbox"/> Goggles w/ face shield. <input type="checkbox"/> Flame retardant lab coat and gloves with inner chemical-resistant gloves. <input type="checkbox"/> Wear non-synthetic clothing. <input type="checkbox"/> Refer to SOP.

### CHEMICAL HAZARDS

*Minimum PPE: Lab coat, long pants or equivalent, safety glasses, closed-toed shoes, disposable 4-mil nitrile gloves or appropriate chemical resistant gloves<sup>4</sup>. Operations may need to be performed inside a fume hood.*

(√) If applies	Examples of some activities which may be performed in the laboratory (Modify to fit your needs)	Potential Hazard	Check PPE Selected
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### PHYSICAL HAZARDS

*Minimum PPE: Lab coat, long pants or equivalent, safety glasses, closed-toed shoes, disposable 4-mil nitrile gloves.*

(√) If applies	Examples of some activities which may be performed in the laboratory (Modify to fit your needs)	Potential Hazard	Additional Recommended PPE <sup>4</sup>
	Working with cryogenic liquids.	Major skin, tissue, or eye damage.	<input type="checkbox"/> Goggles and face shield <input type="checkbox"/> Cryogenic or loose fitting heavy leather gloves <input type="checkbox"/> Cryogenic apron
	Removing freezer cryovials from liquid nitrogen	Vials may explode upon rapid warming. Cuts to face/neck and frostbite to hands.	<input type="checkbox"/> Safety glasses or goggles and face shield <input type="checkbox"/> Cryogenic or loose fitting heavy leather gloves
	Working with very cold equipment or dry ice.	Frostbite, hypothermia.	<input type="checkbox"/> Safety glasses <input type="checkbox"/> Cryogenic or heavy leather gloves (possibly warm clothing)
	Working with hot liquids, heating equipment, open flames (autoclave, Bunsen burner, water bath, oil bath).	Burns resulting in skin or eye damage.	<input type="checkbox"/> Safety glasses <input type="checkbox"/> Goggles for hot liquids <input type="checkbox"/> Autoclave gloves (impermeable insulated gloves for liquids, steam)
	Glassware washing.	Lacerations.	<input type="checkbox"/> Safety glasses <input type="checkbox"/> Cut resistant gloves
	Working with loud equipment, noises, sounds, alarms, etc.	Potential ear damage and hearing loss.	<input type="checkbox"/> Earplugs or ear muffs as necessary. Contact EH&S for noise exposure assessment.
	Working with a centrifuge.	Imbalanced rotor can lead to broken vials, cuts, potential exposure to aerosols.	<input type="checkbox"/> Centrifuge rotor should be opened inside fume hood if potential for broken vials exists. <input type="checkbox"/> Goggles <input type="checkbox"/> Appropriate gloves.
	Working with a sonicator.	Ear damage, exposure to aerosols.	<input type="checkbox"/> Place inside fume hood or to capture aerosols. <input type="checkbox"/> Goggles <input type="checkbox"/> Impermeable gloves <sup>4</sup> .

### CHEMICAL HAZARDS

*Minimum PPE: Lab coat, long pants or equivalent, safety glasses, closed-toed shoes, disposable 4-mil nitrile gloves or appropriate chemical resistant gloves<sup>4</sup>. Operations may need to be performed inside a fume hood.*

(√) If applies	Examples of some activates which may be performed in the laboratory (Modify to fit your needs)	Potential Hazard	Check PPE Selected
	Working with sharps.	Cuts, exposure to aerosols.	<input type="checkbox"/> Use tongs for broken glass and designated sharps container for contaminated wastes <input type="checkbox"/> Cut resistant gloves (Kevlar) with nitrile underneath.
	Working with compressed gases inside environmental chambers	Asphyxiation or toxic gas exposure	Contact EH&S prior to setup. Review SOP and install oxygen sensors inside chamber.

#### *Additional Guidance*

- When materials have a potential for becoming airborne, use a chemical fume hood or other engineering control whenever possible. *Activities, with a potential to generate airborne contaminants, not conducted inside a chemical fume hood or with another engineering control (such as a local exhaust at the workbench) should be evaluated to determine if the activity presents a respiratory hazard. In this case contact EH&S (714) 628-2888 or [swift@chapman.edu](mailto:swift@chapman.edu) as a respiratory protection program must be in place.*
- In addition to **engineering controls and PPE**, consider personal clothing that provides adequate skin coverage.
- Manipulations of dust-producing solids should be evaluated for the need to use respiratory protection.
- Chemical-resistant gloves are to be selected based on the specific chemical(s) used and manufacturer's glove permeation and compatibility charts. Here are some suggested links below for manufacturers

MAPA <http://www.mapa-pro.com/hand-protection-selection-guide.html>

North <http://www.northsafety.com/ClientFormsImages/NorthSafety/CorpSite/E8D15F2E-1F59-454F-B8F0-147FA2B9D81D.pdf>

Ansell [http://www.ansellpro.com/download/Ansell\\_8thEditionChemicalResistanceGuide.pdf](http://www.ansellpro.com/download/Ansell_8thEditionChemicalResistanceGuide.pdf)

Best Gloves <http://www.chemrest.com/>

Cole-Parmer <http://www.coleparmer.com/SafetyChemGuide>

- All PPE must be inspected prior to use, during, after use. Re-usable equipment must be decontaminated or disposed if not feasible.
- When working with *biological, radiological materials and to include lasers contact EH&S (714) 628-2888 or [swift@chapman.edu](mailto:swift@chapman.edu)* for specific guidelines.

## ***Section 2: Conduct PPE Training***

PPE training consists of **lab specific training** conducted by the lab supervisor. Documentation is required to indicate training has been conducted.

### ***Step 1***

The PI or lab supervisor assures that everyone have reviewed the applicable Resource Materials at the Risk Management/Environmental Health & Safety web page <http://www.chapman.edu/faculty-staff/risk-management/environmental.aspx>

### ***Step 2***

- a.** The PI, lab supervisor, or their designee reviews the **completed Lab PPE Assessment Tool** (this document) with the individual. It describes the tasks in the lab when anyone requires PPE to protect themselves from exposure to hazards. In this step, the hazard assessment is used as a training tool.
- b.** While discussing lab activities and the associated hazards with the individual, the supervisor will address how their lab obtains PPE, what types of PPE are used in the lab and for which tasks, where and how the PPE is stored and maintained, how to properly use the PPE, and discuss any limitations of the PPE. The supervisor should also discuss general PPE safety practices,

including not wearing PPE outside of lab hazard areas (e.g. hallways connecting to offices, administrative areas and eating areas and outside the Hashinger Science Center).

- c. Each individual will sign below acknowledging that they have reviewed the PPE assessment tool.

### ***Step 3***

- a. Conduct and document refresher training whenever the hazard assessment is updated, especially when new materials, procedures and SOPs are utilized in the laboratory.
- b. File ***Laboratory Personal Protective Equipment (PPE) Assessment Tool*** and ***PPE Hazard Assessment Tool Training Acknowledgement*** your laboratories' "Laboratory Safety Manual"

***PPE Hazard Assessment Tool Training Acknowledgement:***

***I have read, asked questions, and understand the PPE requirements for the activity/materials described herein.***

<b><i>PI /Supervisor:</i></b>	<b><i>Activity/Material/SOP</i></b>	<b><i>Date:</i></b>
<b><i>Trainees Name:</i></b> <b><i>Signature:</i></b>		
<b><i>Trainees Name:</i></b> <b><i>Signature:</i></b>		
<b><i>Trainees Name:</i></b> <b><i>Signature:</i></b>		

*Date Reviewed: May 16, 2014 - By: Karen Swift, EH&S Manager*

*Approved by Science Safety Committee May 16, 2014*