

SHOP PERSONAL PROTECTIVE EQUIPMENT (PPE) HAZARD ASSESSMENT GUIDE

Purpose and Description

The Shop Personal Protective Equipment (PPE) Hazard Assessment Guide identifies hazards to which shop workers may be exposed and specifies PPE to protect against hazards during work operations. When completed, the document and its associated training will satisfy the PPE Hazard Assessment and Certification as required in Washington Administrative Code (WAC) 296-800-160 by the Labor & Industries Department of Occupational Safety and Health (DOSH).

This document must be completed by the shop safety coordinator or their designee. This person must conduct a hazard assessment that is specific to operations in their shops. EH&S personnel are available to assist with the hazard assessment, and may be reached at 206.543.7262. The shop safety coordinator is responsible for ensuring the PPE identified in this hazard assessment is being properly utilized by shop employees and shop users.

Identifying hazards in the shop should be routine, and the shop should take active steps to eliminate all of the identified hazards. PPE alone should not be relied on to provide protection for employees and shop users. PPE is considered the LAST line of defense, after other measures have been taken to eliminate, reduce or minimize exposure. Engineering controls, administrative controls and training should all be used prior to using PPE wherever possible.

This Hazard Assessment Guide consists of two sections.

Section 1: Shop PPE Hazard Assessment and Certification

Section 2: PPE Training Documentation



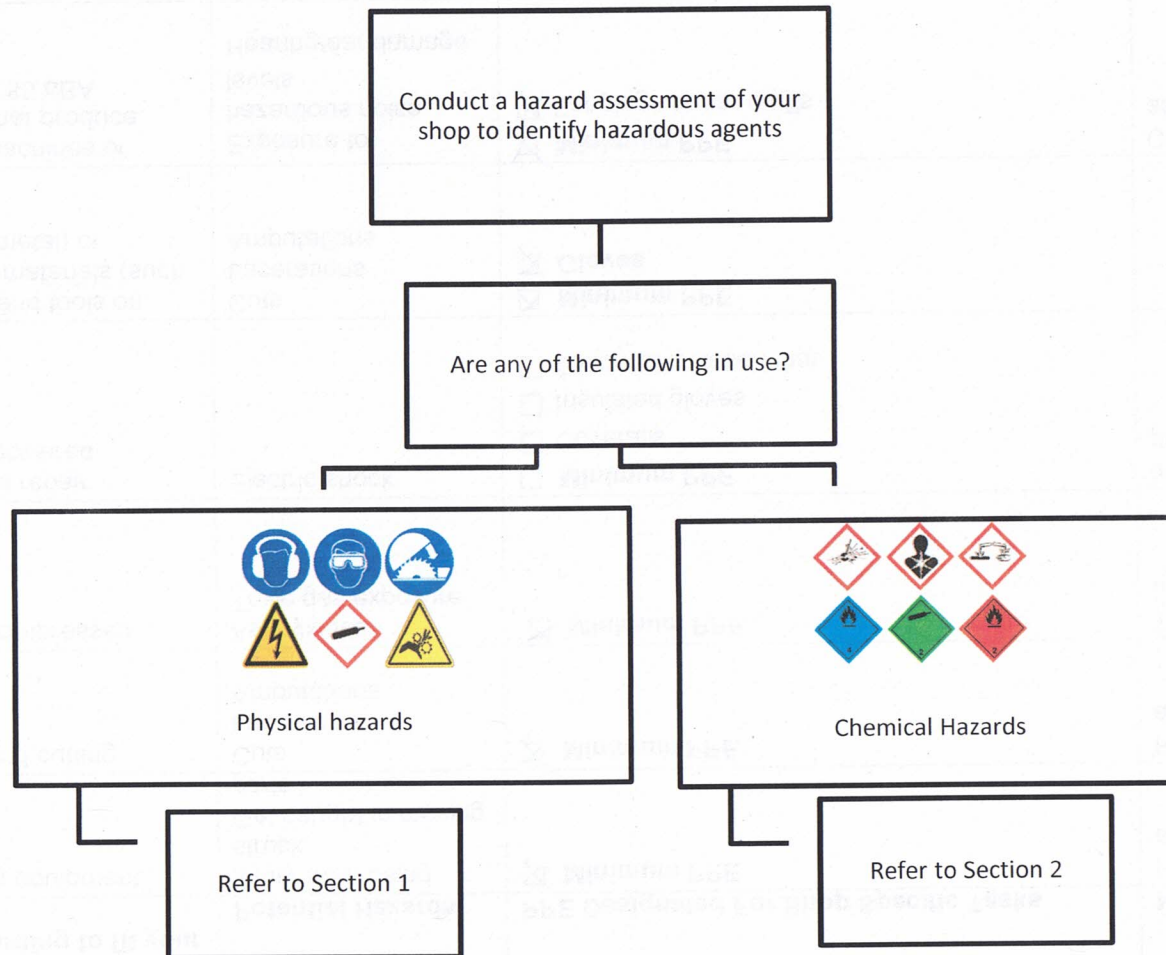
Section 1: Shop PPE Hazard Assessment

The shop safety coordinator or their designee will conduct and certify the hazard assessment.

1. Identify the tasks in the shop that expose users to hazards. Hazards in the shop may include physical hazards like noise, welding, rotating equipment, hot work, electricity, compressed gases and chemical hazards (flammable, toxic, or corrosive solids and liquids). The Shop PPE Hazard Assessment Guide will assist in identifying operations where PPE is needed to protect shop users from exposures to hazards during the tasks. Check the applicable box in the guide if the task is performed.
2. For each task performed, mark the applicable box(es) to indicate the specific required PPE. As needed, provide additional information under the Notes section.
3. Record the completed hazard assessment by filling out the form and signing below.

SHOP HAZARD ASSESSMENT AND PPE

Shop Safety Coordinator Name (Print Name): <i>Alexander Lefort</i>	Department/Unit: <i>Paul G. Allen School of CSE</i>	
Building(s): <i>Bill & Melinda Gates Center for CSE</i>	Room(s): <i>CSE2 G15, G15A, C15C</i>	
Phone: <i>206-685-9198</i>		
Completed by (Print Name): <i>Alexander Lefort</i>	Signature: <i>Alexander Lefort</i>	Date: <i>02/22/2023</i>
Signature of Shop Safety Coordinator: <i>Alexander Lefort</i>	Date: <i>02/22/2023</i>	



Section 1. PHYSICAL HAZARD PROTECTION

Minimum PPE

Eyes: Safety Glasses

Hands: None, dependent upon the task

Body: Long sleeves with tight fitting cuffs, long pants, or equivalent leg covering (no loose clothing); Shop footwear (no open-toe or open heel shoes).

(√) If Perform Task	Task Description (Modify wording to fit your needs)	Potential Hazards	PPE Designated For Shop Specific Tasks	Notes
✓	Use rotating equipment	Injury from being struck, Get caught in moving parts	<input checked="" type="checkbox"/> Minimum PPE	Restrain hair, remove jewelry and no loose clothing
✓	Use saws and cutting equipment	Cuts Lacerations Amputations	<input checked="" type="checkbox"/> Minimum PPE	Restrain hair, remove jewelry and no loose clothing
✓	Work with compressed gases	Asphyxiation Toxic gas exposure	<input checked="" type="checkbox"/> Minimum PPE	Take special precautions in unventilated spaces
	Maintain and repair electrically powered equipment	Electric shock	<input type="checkbox"/> Minimum PPE <input type="checkbox"/> Coveralls <input type="checkbox"/> Insulated gloves <input type="checkbox"/> Electrical isolation mat	Implement Lockout/Tagout procedures
✓	Work with hand tools on sharp sided materials (such as wood or metal) or equipment	Cuts Lacerations Amputations	<input checked="" type="checkbox"/> Minimum PPE <input checked="" type="checkbox"/> Gloves	
✓	Work with machines or equipment that produce noise above 85 dBA	Exposure to hazardous noise levels Hearing/ear damage	<input checked="" type="checkbox"/> Minimum PPE <input checked="" type="checkbox"/> Ear plugs or ear muffs	Contact EHS for noise assessment

	<p>Welding or hot work, work with ultraviolet radiation, exposure to noise, welding fumes and/or electric arc welding</p>	<p>Conjunctivitis Corneal damage Skin burns Flash burns Hearing/ear damage Welding fume fever Electric shock</p>	<p><input type="checkbox"/> Minimum PPE</p> <ul style="list-style-type: none"> <input type="checkbox"/> Welders hood, UV face shield and/or goggles with proper shades <input type="checkbox"/> Leather safety toed shoes <input type="checkbox"/> Head cover <input type="checkbox"/> Ear plugs or ear muffs <input type="checkbox"/> Respirator with HEPA cartridges or supplied air if necessary 	<p>Fire extinguisher Contact EHS for welding fume assessment or noise exposure assessment to determine proper respiratory or hearing protection.</p>
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Section 2. CHEMICAL PROTECTION

Minimum PPE

Eyes: Safety glasses, goggles if there is a splash potential	Hands: Chemical resistant gloves appropriate for the chemical being used (consult the safety data sheet).	Body: Long pants, shirt, or equivalent leg covering (no shorts, no loose clothing); Shop footwear (no open-toe or open heel shoes).
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(√) If Perform Task	Task Description (Modify wording to fit your needs)	Potential Hazards	PPE Designated For Shop Specific Tasks	Notes:
✓	Work with degreasers, corrosives or other toxic liquids	Potential inhalation, skin or eye damage Potential poisoning or damage through skin contact	<input checked="" type="checkbox"/> Minimum PPE <input checked="" type="checkbox"/> Eyes and/or Face: Where splashing may occur, use safety goggles or safety glasses and a face shield <input type="checkbox"/> Inhalation Hazard: Wear respiratory protection	<i>No inhalation hazard for most when present, plenum fume extractors used.</i>
✓	Work with machine oils, coolant, etc.	Potential inhalation, skin or eye damage Potential poisoning or damage through skin contact	<input checked="" type="checkbox"/> Minimum PPE <input checked="" type="checkbox"/> Eyes and/or Face: Where splashing may occur, use safety goggles or safety glasses and a face shield <input type="checkbox"/> Inhalation Hazard: Wear respiratory protection	<i>No inhalation hazard w/ materials used.</i>
✓	Spill cleanup	Potential skin, eye or respiratory damage	<input checked="" type="checkbox"/> Minimum PPE <input checked="" type="checkbox"/> Body: Shop coat and chemical resistant apron <input checked="" type="checkbox"/> Foot: Shoe covers, as needed <input checked="" type="checkbox"/> Eyes: Where splashing may occur, use safety goggles <input checked="" type="checkbox"/> Face: Where splashing may occur, use safety goggles or safety glasses and a face shield <input type="checkbox"/> Inhalation Hazard: Wear respiratory protection	Wear PPE specific for chemical spill cleanup. Refer to chemical spill cleanup procedures in specific chemical SOP. For a large spill, follow required procedures: <ul style="list-style-type: none"> Call 911 for assistance Report all injuries and fires Call EH&S for assistance
	List any other particularly hazardous shop tasks involving chemicals	Conduct risk assessment Hazard depends on task and chemical properties Check safety data sheet information	<input type="checkbox"/> Minimum PPE <input type="checkbox"/> If chemicals used, wear chemical resistant apron <input type="checkbox"/> Inhalation hazard: Wear respiratory protection <input type="checkbox"/> Shop Hood: Work in chemical fume hood	(Note: Best practice to perform work in chemical fume hood)

ADDITIONAL GUIDANCE ON PPE SELECTION

1. **PPE Inspection, Maintenance, and Decontamination.** All PPE should be inspected prior to, during and after use. Re-usable equipment must be decontaminated or disposed of if it is not feasible to decontaminate.
2. **Shop Footwear.** Shop footwear provides protection against physical hazards and covers the entire foot from the toes to the ankle. Avoid sandals, flip flops, flats, athletic shoes and canvas/breathable fabric tops.
3. **Hearing Protection.** Ear plugs or muffs provide protection against hazardous noise levels. When there is potential for hazardous noise levels contact EHS for an exposure assessment. If employees are exposed to 85 dBA for an 8 hour TWA (Time weighted average) period, make sure they receive Hearing Loss Prevention training and receive annual hearing testing.
4. **Airborne/Inhalation Hazard, Engineering Controls, and Respiratory Protection.** When materials have a potential for becoming airborne, use a chemical fume hood, local exhaust (snorkel) or other engineering control whenever possible. Activities that generate airborne contaminants or odors that are not conducted using local exhaust or some other engineering control (such as at the workbench) should be evaluated to determine if the activity presents an inhalation hazard.
5. If respiratory protection is identified as a necessary control during the hazard assessment, users must be enrolled in the UW Respiratory Protection Program. This includes EH&S performing a respirator-specific hazard assessment, as well as having all users undergo a medical evaluation to wear a respirator, respirator training and respirator fit testing. Contact EH&S at 206.221.7770 or uwresp@uw.edu for assistance in these steps. Guidance is available at: www.ehs.washington.edu/workplace/respiratory-protection
6. **Chemical-Resistant Gloves.** Chemical-resistant gloves must be selected based on the specific chemical(s) used and the glove manufacturer's permeation and compatibility charts. Guidance is available at: www.ehs.washington.edu/resource/laboratory-safety-manual-510

Section 2: PPE Training Documentation

PPE training must be conducted by the shop safety coordinator or their designee. Training will identify and discuss potentially hazardous tasks performed in the shop, and selection and use of shop specific PPE to protect the shop worker or researcher. **The training content, instructor and attendees must be documented.** To provide adequate training, the shop safety coordinator or their designee will provide the following:

1. The shop safety coordinator or their designee will review the completed Shop PPE Hazard Assessment Guide with the employee. It describes the operations in the shop where employees need PPE for protection against exposure to hazards. In this step, the hazard assessment is used as a training tool. While discussing shop operations and the associated hazards with shop staff, the shop safety coordinator will address the following:
 - How the shop obtains PPE
 - What types of PPE are used in the shop and for which tasks
 - Where and how the PPE is stored and maintained
 - How to put on, wear, adjust for proper fit, and remove PPE
 - How to properly use the PPE
 - Discuss any limitations of the PPE
 - General PPE safety practices, including not wearing PPE outside of shops (e.g. hallways and eating areas)
2. Each trained shop staff member will sign the training documentation to acknowledge that they have reviewed the Shop PPE Assessment Guide and have received training.
3. Conduct refresher training whenever the hazard assessment and/or PPE selected for use is updated.

Shop PPE Hazard Assessment Guide Training Acknowledgement

Shop Safety Coordinator: Alexander Lefort Department/Unit: CSE

Building: Bill & Melinda Gates Center for CSE Room: CSE2 G15, G15A, G15C

Trainer: Alexander Lefort Trainer Job Title: Lab Manager

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

Date	Name of Person Trained	Job Title	Employee or Student ID Number	Signature
	<p>* State Users sign agreement forms held in cabinet and trainings are recorded in lab spreadsheet. - Ask Lab Manager for access.</p>			lab manager