

	Illness and Injury Prevention Program (IIPP) HAZARD ASSESSMENT TOOL for SHOPS (HATS)
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The hazard assessment tool for shops identifies hazards to workers and specifies personal protective equipment (PPE) to protect workers during shop activities. This form must be completed by the Shop Manager, Supervisor, or their designee to conduct a shop hazard assessment specific to activities in their shop(s). The person conducting the assessment must verify that it is complete and that training has been conducted.

This assessment consists of four sections and serves as a step in satisfying PPE requirements.

- Section 1:** Shop Information
- Section 2:** Shop Hazard Assessment
- Section 3:** Conduct PPE Training
- Section 4:** Verification of PPE Training

EH&S personnel are available to assist you with completing this form or with reviewing it after you have completed it. Contact EH&S by calling (575)-646-3327 or e-mailing jelarson@nmsu.edu.

Section 1: Shop Information

Department	
Shop location(s) with building & room number(s)	
Department Director	
Shop Manager or Supervisor	
Name of person conducting assessment	
Phone number	
Email address	

Section 2: Shop Hazard Assessment

In this section, you will:

- Conduct a hazard assessment of the shop to identify activities when PPE is needed to protect shop workers from exposure to hazards.
- Certify the hazard assessment for the shop by signing in Section 1.

The following checklists are an overview of common shop activities and associated potential hazards and applicable PPE. Check each box that describes activities performed by shop employees.

Are the following activities performed in the shop?		Machinery Hazards		
Yes	No	Activity	Potential Hazard	Applicable PPE ¹
<input type="checkbox"/>	<input type="checkbox"/>	Working with cutting devices such as drill presses, milling machines, table saws, band saws, lathes or portable power tools.	Eye damage, lacerations.	Safety glasses or goggles (high amounts of dust or working overhead). Long pants and closed-toed shoes.
<input type="checkbox"/>	<input type="checkbox"/>	Working with loud equipment, noises, sounds, alarms, etc.	Potential ear damage and hearing loss.	Earplugs or ear muffs depending on noise reduction rating and comfort.
<input type="checkbox"/>	<input type="checkbox"/>	Perform tasks such as sanding or grinding that produce airborne dust or flying particles.	Eye damage or lacerations to the face, inhalation, hearing loss, skin abrasions.	Safety glasses or goggles, face shield, leather gloves, leather jacket, leather shoes, ear muffs or plugs, N95 dust mask, long pants, closed-toed shoes.
<input type="checkbox"/>	<input type="checkbox"/>	Working with hot material, equipment, open flames (welding, soldering, brazing).	Burns resulting in skin or eye damage.	Safety glasses or welding helmet for welding operations, insulated gloves, welding apron or coat, long pants, closed-toed shoes.
<input type="checkbox"/>	<input type="checkbox"/>	Perform activities that expose employees to intense UV light or lasers.	Eye damage.	Appropriately shaded goggles/glasses with optical density based on individual beam parameters, welding helmet, N95 dust mask.
<input type="checkbox"/>	<input type="checkbox"/>	Operate boom lifts, scaffolding, or other aerial devices.	Fall above 6 ft.	Body harness, self-retracting line, or shock-absorbing lanyard.
<input type="checkbox"/>	<input type="checkbox"/>	Perform other task or activity not listed that expose employees to machinery hazards. List task or activity:	List hazard:	List applicable PPE:

Are the following activities performed in the shop?		Chemical Hazards		
Yes	No	Activity	Potential Hazard	Applicable PPE ²
<input type="checkbox"/>	<input type="checkbox"/>	Working with small volumes (<4 liters) of corrosive liquids.	Eye or skin damage.	Safety glasses or goggles. Light chemical-resistant gloves and apron, long pants, closed-toed shoes.
<input type="checkbox"/>	<input type="checkbox"/>	Working with large volumes (>4 liters) of corrosive liquids.	Poisoning increased potential for eye and skin damage.	Safety goggles. Heavy chemical-resistant gloves. Chemical-resistant coat or apron.
<input type="checkbox"/>	<input type="checkbox"/>	Working with small volumes (<4 liters) of solvents or flammable compounds.	Skin or eye damage, potential poisoning through skin contact.	Safety glasses or goggles. Light chemical-resistant gloves and apron.
<input type="checkbox"/>	<input type="checkbox"/>	Working with an apparatus with contents under pressure or vacuum.	Eye or skin damage.	Safety glasses or goggles, face shield for high risk activities. Chemical-resistant gloves. Chemical-resistant apron for high risk activities.
<input type="checkbox"/>	<input type="checkbox"/>	Working with low and high temperatures.	Burns or fire.	Safety glasses. Thermally insulated gloves and apron.
<input type="checkbox"/>	<input type="checkbox"/>	Minor chemical spill cleanup.	Skin or eye damage, respiratory damage.	Safety glasses or goggles. Chemical-resistant gloves. Chemical-resistant apron or suit, and boot/shoe covers for high risk activities. Respirator as needed.

Are the following activities performed in the shop?		Chemical Hazards		
Yes	No	Activity	Potential Hazard	Applicable PPE ²
<input type="checkbox"/>	<input type="checkbox"/>	Perform other task or activity not listed that expose employees to chemical hazards. List task or activity:	List hazard:	List applicable PPE:

Are the following activities performed in the lab?		Laser Hazards		
Yes	No	Activity	Potential Hazard	Applicable PPE ³
		Open Beam		
<input type="checkbox"/>	<input type="checkbox"/>	Performing alignment, troubleshooting or maintenance that requires working with an open beam and/or defeating the interlock(s) on any Class 3 or Class 4 laser system.	Eye damage.	Appropriately shaded goggles/glasses with optical density based on individual beam parameters.
<input type="checkbox"/>	<input type="checkbox"/>	Viewing a Class 3R laser beam with magnifying optics (including eyeglasses).	Eye damage.	Appropriately shaded goggles/glasses with optical density based on individual beam parameters.
<input type="checkbox"/>	<input type="checkbox"/>	Working with a Class 3B laser open beam system with the potential for producing direct or specular reflections.	Eye damage, skin damage.	Appropriately shaded goggles/glasses with optical density based on individual beam parameters, appropriate skin protection.
<input type="checkbox"/>	<input type="checkbox"/>	Working with a Class 4 laser open beam system with the potential for producing direct, specular, or diffuse reflections.	Eye damage, skin damage.	Appropriately shaded goggles/glasses with optical density based on individual beam parameters, appropriate skin protection.
		Non-Beam		
<input type="checkbox"/>	<input type="checkbox"/>	Handling dye laser materials, such as powdered dyes, chemicals, and solvents.	Cancer, explosion, fire.	Gloves, safety glasses, flame-resistant lab coat or coveralls.
<input type="checkbox"/>	<input type="checkbox"/>	Maintaining and repairing power sources for large Class 3B and Class 4 laser systems.	Electrocution, explosion, fire.	Electrical isolation mat, flame-resistant lab coat or coveralls.
<input type="checkbox"/>	<input type="checkbox"/>	Perform other task or activity not listed that expose employees to laser hazards. List task or activity:	List hazard:	List applicable PPE:

Are the following activities performed in the shop?		Physical Hazards		
Yes	No	Activity	Potential Hazard	Applicable PPE
<input type="checkbox"/>	<input type="checkbox"/>	Working with cryogenic liquids.	Frostbite or eye damage.	Safety glasses or goggles for large volumes, impermeable insulated gloves, lab coat.
<input type="checkbox"/>	<input type="checkbox"/>	Working with very cold equipment or dry ice.	Frostbite, hypothermia.	Safety glasses, insulated gloves (possibly warm clothing), lab coat.

Are the following activities performed in the shop?		Physical Hazards		
Yes	No	Activity	Potential Hazard	Applicable PPE
<input type="checkbox"/>	<input type="checkbox"/>	Working with hot liquids, equipment, open flames (water bath, oil bath).	Burns resulting in skin or eye damage.	Safety glasses or goggles for large volumes, insulated gloves (impermeable insulated gloves for liquids, steam), lab coat.
<input type="checkbox"/>	<input type="checkbox"/>	Work in elevated areas where an object can fall and strike employees on their head.	Head injuries.	Hard Hat.
<input type="checkbox"/>	<input type="checkbox"/>	Work in areas where employees stand or bend near exposed beams, machine parts or pipes.	Head injuries.	Hard Hat.
<input type="checkbox"/>	<input type="checkbox"/>	Work with or near exposed electrical wiring or components.	Electrical shock, arc-flash.	Voltage-rated rubber insulating gloves, non-conductive hard hat, hard soled shoes, arc-rated face shield, safety glasses or goggles, flame resistant apparel.
<input type="checkbox"/>	<input type="checkbox"/>	Work with tools, heavy equipment, or other objects that could fall and strike you in the leg.	Leg or foot damage	Shin guards, metatarsal protection, work boots or steel toed boots.
<input type="checkbox"/>	<input type="checkbox"/>	Work with tools or material that might scrape, bruise, or cut an employee's hands.	Hand damage	Cut-resistant gloves, leather gloves, latex/nylon/nitrile gloves.
<input type="checkbox"/>	<input type="checkbox"/>	Work with tools that have increased motion or heavy vibration.	Decreased grip strength, white finger.	Anti-vibration gloves.
<input type="checkbox"/>	<input type="checkbox"/>	Work in confined spaces or permit-required confined spaces.	Eye, skin, head, hand, leg and foot damage. Fall above 6ft. Oxygen deficiency or hazardous atmosphere.	Safety glasses or goggles, hard hat, chemical protective suit, boots or steel toed shoes, body harness, and shock absorbing lanyard. Self-Contained Breathing Apparatus (SCBA)
<input type="checkbox"/>	<input type="checkbox"/>	Work in very wet areas or areas that are slippery.	Fall below 6 ft.	Slip resistant safety shoes.
<input type="checkbox"/>	<input type="checkbox"/>	Perform other task or activity not listed that expose employees to physical hazards. List task or activity:	List hazard:	List applicable PPE:

Date assessment completed	
Signature	

¹ Machinery that creates dust should be connected to local exhaust or other engineering control whenever possible. *Activities with machinery or power tools not connected to local exhaust or with another engineering control should be evaluated to determine if the activity presents a respiratory hazard. In this case a respirator may be required and a respiratory protection program must be in place per the EH&S Respiratory Protection Program. Guidance can be found at www.ehs.ucla.edu.* In addition to engineering controls and PPE, consider personal clothing that provides adequate skin coverage.

² Chemical-resistant gloves are to be selected based on the specific chemical(s) used.

³ Appropriate skin protection can include lab coat, gloves, sun block, barrier cream.

Section 3: Conduct PPE Training

PPE training consists of two parts: **Part 1 is a general review of the Hazard Assessment Tool** and **Part 2 is site specific training** conducted by the shop supervisor. Verification is required to document that training has been conducted (see the following page).

Step 1

1. The shop supervisor, manager, or their designee reviews the **completed Hazard Assessment Tool** (this document) with the employee. It describes the tasks in the shop when employees need PPE to protect themselves from exposure to hazards. In this step, the hazard assessment is used as a training tool.
2. While discussing shop activities and the associated hazards with shop employees, the supervisor will address how their 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 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 shop hazard areas (e.g. hallways and eating areas).

Step 2

When the supervisor believes the employee has demonstrated understanding, the employee(s) and the supervisor then sign the following *Verification of PPE Training* form (next page) to document that PPE training has been conducted. A copy of this signed form is to be maintained in the Shop Safety Manual.

Step 3

Repeat or conduct a refresher training whenever the hazard assessment is updated (at least annually).

Section 4: Verification of PPE Training

The following employees of _____ (Shop) have reviewed the Hazard Assessment Tool for Shops and have received the following training:

- 1. When PPE is necessary.
- 2. What PPE is required.
- 3. How to properly don, doff, adjust, and wear PPE.
- 4. The limitations of PPE.
- 5. The proper care, maintenance, useful life, and disposal of PPE.

<u>EMPLOYEE NAME</u>	<u>EMPLOYEE SIGNATURE</u>
_____	_____
_____	_____
_____	_____
_____	_____
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As a part of this training, employees were informed of the personal protective equipment selected by this facility for their use. By my signature and those of the employees listed above, we certify that each employee has demonstrated his/her understanding of this training.

(Signature of Trainer)

(Date)