

The Hazard Assessment Tool identifies potential workplace hazards and specifies personal protective equipment (PPE) to protect workers from these hazards. This form must be completed annually by the Shop Manager, Supervisor, or qualified designee to assess hazards specific to their shop(s), and reviewed/signed by all shop personnel. The person conducting the assessment must verify that it is complete and that required training has been provided to all employees who may be exposed to the identified hazards.

Information

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|----------------------------------------------|----------------------------------------------------------|
| Department | Facilities Services |
| Shop location(s) [building & room number(s)] | Central Plant |
| Shop Manager or Supervisor | Kenneth Seeton |
| Job Titles(s) | BSE FCS RM |
| Phone number | 310-243-2206 |
| Email address | kseeton@csudh.edu |
| Date of Assessment | 11/22/22 |

Hazard Assessment

Identify work tasks or activities performed in the shop using the following checklists. Review the potential hazards and PPE associated with each activity.

| Activity performed? | | Machinery (Mechanical) Hazards | | |
|----------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Yes | No | Activity | Potential Hazard | Applicable PPE |
| X <input type="checkbox"/> | <input type="checkbox"/> | Use of cutting devices such as drill presses, milling machines, table saws, band saws, lathes or portable power tools. | Eye injuries, lacerations, physical entrapment. | Safety glasses (ANSI Z87.1) or goggles (large amounts of dust or working overhead). Proper attire (e.g. no loose clothing, long pants and closed-toed shoes). Long hair must be tied back. |
| X <input type="checkbox"/> | <input type="checkbox"/> | Working with loud equipment, noises, sounds, alarms, etc. | Potential hearing damage or loss. | Hearing protection sufficient to keep noise below OSHA permissible exposure limit. Earplugs, ear muffs, or a combination of both, depending on noise reduction rating and comfort. |

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| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sanding or grinding activities that produce airborne dust or flying particles. | Eye injuries, facial lacerations or abrasions, inhalation, hearing damage. | Safety glasses with side shields, goggles, face shield, leather gloves (not to be used with grinding wheels), jacket, N95 respirator, long pants, closed-toed shoes, ear muffs and/or plugs, depending on noise reduction rating and comfort. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Hot work such as welding, torch cutting, and brazing. Equipment with open flames or high heat levels. | Skin burns, eye damage, fires. | Safety glasses,/ or goggles, welding helmet with appropriate filter lenses, respirator/local exhaust ventilation for operations producing significant fumes, insulated gloves, flame resistant (FR) coveralls/smock/coat/apron, long pants, rubber-soled, closed-toed shoes (ANSI Z41.1). |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Activities that expose employees to intense UV light or lasers. | Skin injuries, eye damage. | Long sleeves and pants, gloves when working with hands near accessible laser beams. Goggles/glasses/face shield with optical density matched to light parameters, optical UV protection (ANSI Z136). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Work with equipment, tools, or material that could scrape, bruise or cut hands. | Hand lacerations and contusions. | Cut-resistant gloves, leather gloves, or latex/nitrile gloves (depending on equipment). |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Work with tools that vibrate. | Carpal tunnel, white finger. | Anti-vibration gloves. |
| <input type="checkbox"/> | <input type="checkbox"/> | Other unlisted task or activity. List task or activity: | List hazard: | List applicable PPE: |

| Activity performed? | | Physical Hazards | | |
|-------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Yes | No | Activity | Potential Hazard | Applicable PPE |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Aerial work such as with boom lifts. | Falls | Body harness, self-retracting line, or shock-absorbing lanyard. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Work with very cold equipment or dry ice; work in cold rooms. | Frostbite, hypothermia. | Insulated cryogenic gloves, warm clothing (cover exposed skin). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Work in areas with high temperatures (outdoors). | Heat illness | Wide brimmed hat, UV-blocking sunglasses, sunblock, light colored clothing with long sleeves and pants, shaded area for rest periods. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Work with hot liquids, equipment, open flames (water bath, oil bath). | Burns, eye damage. | Safety glasses or goggles for large volumes, insulated gloves (impermeable insulated gloves for liquids, steam), lab coat or apron. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Work in elevated areas where objects can fall and strike employees | Head injuries. | Hard hat, protective helmets (ANSI Z89.1) for employees below. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Work in areas where employees stand or bend near exposed beams, machine parts or pipes (low overhead clearance) | Head injuries. | Hard hat, hard/bump cap. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Overhead work. | Eye injuries. | Safety goggles. |
| <input checked="" 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 rubber-soled shoes, arc-rated face shield, safety glasses or goggles, flame resistant apparel. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Work with tools, heavy equipment, or other objects that could fall and strike legs/feet or work near sharp objects | Leg or foot injuries. | Foot/shin guards, work boots or steel/composite toed boots. |

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| | | such as nails or spikes. | | |
| <input checked="" 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 checked="" type="checkbox"/> | Work in confined spaces. | Respiratory hazards, crushes, cuts and contusions, falls | Safety glasses or goggles, hard hat, chemical protective suit, work boots or steel/composite toed shoes, body harness and lanyard, and/or respirator may be required (depending on nature of job). |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Work in very wet areas or areas that are slippery, areas near water. | Falls, drowning. | Slip resistant safety shoes, life jackets or buoyant work vests. |
| <input type="checkbox"/> | <input type="checkbox"/> | Other unlisted task or activity List task or activity: | List hazard: | List applicable PPE: |

| Activity performed? | | Chemical Hazards | | |
|-------------------------------------|-------------------------------------|------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Yes | No | Activity | Potential Hazard | Applicable PPE |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Handling small volumes (<4 liters) of corrosive liquids. | Eye damage or burns. | Safety glasses or goggles, chemical-resistant gloves and apron, long pants, closed-toed shoes. Refer to chemical SDS for specifics. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Handling large volumes (>4 liters) of corrosive liquids. | Eye damage, burns, poisoning, inhalation. | Safety goggles, face shield, chemical-resistant gloves, chemical-resistant coat or apron, respirator. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Handling small volumes (<4 liters) of solvents or flammable compounds. | Eye damage, burns, poisoning, fire. | Safety glasses or goggles, chemical-resistant gloves and apron, non-synthetic fabric clothing |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Use of a pressure or vacuum sealed apparatus. | Eye damage, burns, lacerations, hearing damage/loss. | Safety glasses or goggles, face shield, hearing protection (ear plugs/and or ear muffs) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Work with cryogenic liquids. | Skin injuries (frostbite), eye damage. | Safety glasses or goggles for large volumes, face shield, loose-fitting impermeable insulated (cryogenic) gloves, lab coat, closed-toe shoes. |
| <input checked="" 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. |
| <input type="checkbox"/> | <input type="checkbox"/> | Other unlisted task or activity. List task or activity: | List hazard: | List applicable PPE: |

| Activity performed? | | Laser Hazards | | |
|--------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------|
| Yes | No | Activity | Potential Hazard | Applicable PPE |
| Open Beam | | | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Aligning, trouble-shooting or performing maintenance on equipment with an open beam and/or defeating the interlock(s) on any Class | Eye damage. | Goggles/glasses with optical density based on beam parameters. |

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| | | 3 or Class 4 laser system. | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Viewing a Class 3R laser beam with magnifying optics (including eyeglasses). | Eye damage. | Goggles/glasses with optical density based on beam parameters. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Working with a Class 3B laser open beam system with the potential for producing direct or specular reflections. | Eye damage, skin damage. | Goggles/glasses with optical density based on beam parameters, long sleeves. |
| <input type="checkbox"/> | <input checked="" 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. | Goggles/glasses with optical density based on beam parameters, isolation from beam. |
| Non-Beam | | | | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Handling dye laser materials, such as powdered dyes, chemicals, and solvents. | Health effects, burns. | Gloves, safety glasses, flame-resistant lab coat or coveralls. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Maintaining and repairing power sources for large Class 3B and Class 4 laser systems. | Electrocution, electrical burns, lacerations, contusions, burns. | Electrical isolation mat, flame-resistant lab coat or coveralls. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Using laser cutters. | Fume inhalation, eye damage. | Goggles/glasses with optical density based on beam parameters if beam is not protected, respirator/ventilation. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Perform other unlisted task or activity. List task or activity: | List hazard: | List applicable PPE: |

| Other Hazards | | |
|---------------|------------------|-----------------------------|
| Activity | Potential Hazard | Applicable PPE ¹ |
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| Signature | Kenny Seton |
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Verification of PPE Training

The following employees of _____ (Shop) have reviewed the Hazard Assessment Tool 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)