Personal Protective Equipment

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Objectives

- Hazard Assessments
- OSHA Requirements
- Personal Protection Equipment
- Your Responsibilities

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Hazard Assessments

HAZARD ASSESSMENT
The hazard assessment will review physical, mechanical, electrical, biological, and chemical hazards, among other things, within a work area.

Material safety data sheets are reviewed if a chemical is present as a part of the hazard assessment.

Applicable OSHA regulations are referenced to provide sufficient personal protective equipment recommendations.

The University continues to perform hazard assessments.

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HAZARD ASSESSMENT

Physical

- Heavy objects (i.e., vehicles, boxes, etc.)
- Protruding surfaces (i.e., uneven flooring, debris, etc.)
- Abrasive surfaces (i.e., sanding materials, sand-blasting, grinding, etc.)

Mechanical

- Machinery pinch-points (i.e., punches, sheers, blenders, etc.)
- Exposed gears (i.e., driven gears on machinery, etc.)

Electrical

- Exposed wiring (i.e., electrical panels, damaged wiring, etc.)
- High voltage

Biological

- Bodily fluids (i.e., blood, vomit, saliva, etc.)

Chemical

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Hazard Assessment - Hierarchy

In this order:

Eliminate the hazard by substitution

Eliminate the hazard by engineering controls (ventilation, physical barriers, etc)

Control the hazard by work practice (using tools, handling procedures

Protect the worker by the use of PPE

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OSHA Requirements

1910.132	General Requirements
1910.133	Eye and face protection
1910.134	Respiratory protection
1910.135	Head protection
1910.136	Occupational foot protection
1910.137	Electrical protective devices
1910.138	Hand protection

1910 Subpart I Appendix A&B – non mandatory guidelines

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EYE AND FACE PROTECTION

Eye Protection - Safety glasses, goggles, and face shields protect the eyes from flying objects, impact hazards, or chemical exposures. Safety glasses and goggles should fit comfortably and allow clear vision. Goggles should be worn over your own glasses. Always wear eye protection (splash proof safety goggles or a face shield) when using hazardous chemicals. Safety Eyewear must meet ANSI Z87.1-2003 standard.

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Personal Protective Equipment

HAND

Hand Protection—Gloves can protect the hands from injury. There are different types of gloves made of materials to protect hands from chemicals, biological agents, cuts or abrasions, or temperature extremes. Gloves for protection from chemicals are usually made of butyl rubber, neoprene, nitrile or natural rubber. Check with the MSDS to know the type of glove that is recommended.

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HAND

Gloves that are too large may make it harder to grip objects. If gloves are too small, they may impair circulation to the hands. Your employer should provide gloves in different sizes to ensure that each employee can select a pair that fits properly. Some people, however, may have an allergic reaction to gloves made of latex or natural rubber.

Personal Protective Equipment

HEARING
There are three types of hearing protection: ear muffs canal caps and ear plugs

Always make sure your hands are clean when inserting disposable inserts, because you have to twist the ear plug with your fingers before inserting.

Job hazard analysis being completed on areas where hearing protection may be needed.

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PERSONAL PROTECTIVE EQUIPMENT

FOOT

Safety Shoes and Boots—Proper footwear can help prevent slips on wet floors. Some rubber sole shoes are designed just for working in a wet environment. Antifatigue soles and insoles can also reduce worker fatigue after long hours of standing on hard surfaces. Other safety shoes and boots (steel toed) are designed to protect the feet from hard impacts. Also chemical resistant boots are available.

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FOOT

Foot protection must be worn anywhere there is the potential for any or all of the following hazards that might affect an employee's foot or feet:

- Heavy objects that could crush or otherwise damage an employee's foot (i.e., large moveable containers, vehicle traffic in relatively confined areas, etc.)
- Sharp objects on the floor of the work area or on the ground in a traffic area (i.e., scrap sheet metal, broken glass, nails, etc.)
- Electrical discharge (i.e., live wires, work in areas near electrical panels or equipment, etc.)
- Hazardous chemical exposure, especially liquids (i.e., acid or alkali spills, solvents, chemical irritants in general, etc.)

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RESPIRATORY PROTECTION

Only authorized employees who have passed medical clearance requirements are allowed to wear respiratory protection devices.

These devices are to be disposed of after one use.

Beards, facial hair growth that may obstruct the respirator seal.

Respirators should only be worn if the area where the respirator makes contact with the skin is clean shaven.

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BODY PROTECTION

Body protection may be necessary if there is the potential for an employee to get wet from something other than the weather or perspiration, of if there is the potential for bodily exposure to hazardous chemicals, among other things. Body protection includes, but is not limited to:

- Aprons
- Coats
- Jackets
- Pants
- Sleeves
- Reflective Vests
- Chemical Protective Coveralls

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COVERALLS

When working with or spraying chemicals that have the potential to splash back onto the user – coveralls and/or protective chemical aprons should be worn to protect the worker.

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HEAD PROTECTION

Head protection must be worn at all times in areas where there is the potential for the head to contact or be contacted by:

- Falling objects
- Low-hanging objects
- Electrical shock
- Hair entanglement
- Chemicals
- Temperature extremes

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INSPECTION, CLEANING, MAINTENANCE

All PPE must be kept clean and properly maintained to be effective. PPE must be inspected after each use to ensure that it is free of damage or wear. Damaged or worn PPE must be repaired or
replaced based upon the manufacturer's recommendations.

Damaged PPE, or PPE that is degraded through wear or chemical exposure to the point where its function is impaired, must be
discarded and may not be worn.

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Your Responsibility

- PPE is for YOUR Protection.
- Works best when used correctly.
- Assure proper care and maintenance of PPE.
- Inspect PPE before each use.
- Defective or damaged PPE shall not be used.
- For all questions contact your manager.

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