

Personal Protective Equipment Program

I. Purpose

The purpose of the Personal Protective Equipment Program is to define the basic elements and responsibilities of the program in order to ensure the safe and appropriate use of personal protective equipment. This program follows the regulations governing personal protective equipment, Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) 1910.132, 133, 135, 136 and 138.

II. Definition

Personal protective equipment (PPE) means any equipment or clothing designed to create a barrier to protect a person from chemical, physical or mechanical hazards. PPE includes, but is not limited to, chemical goggles, plain and prescription safety glasses with side shields, face shields, welder's helmets, gloves, chemical aprons, protective suits, protective footwear, chemical boots, hearing protection, respirators, and hard hats.

III. Responsibilities

A. **Deans, Department Heads, Program Managers, and the Physical Facilities Director or their designee** are responsible for:

- Identifying personnel and/or tasks in their areas that may require the use of PPE.
- Requesting that Environmental Health and Safety (EHS) perform a hazard assessment when appropriate and necessary.
- Providing required training for PPE. EHS will assist with training, if needed, must be contacted.
- Providing PPE determined by the hazard assessment.
- Enforcing the use of required PPE.

B. **Office of Environmental Health and Safety** is responsible for:

- When requested, performing hazard assessments of work areas to determine if hazards are present or are likely to be present.

- Assisting in the proper selection of PPE. See Appendix A for guidelines.
- Providing or assisting in the required training for any personnel who must wear PPE. See Appendix B for listing by job classification.
- Maintaining hazard assessment and training records.
- Reviewing and updating this program as appropriate.

C. **Montana Tech Employees** are responsible for:

- Using only department-issued or department-approved PPE.
- Wearing all required PPE in accordance with any training received, maintaining PPE in clean serviceable conditions at all times, and replacing any defective PPE.
- Attending all required training.

IV. Training

- A. Training will be provided to each employee and student who is required to use PPE.
- B. All training must be documented.

Reviewed: 2024

Appendix A: General Guidelines for Selection and Use of Personal Protective Equipment

Head Protection/Hard Hats

1. Hard hats must be used in areas where a reasonable risk exists for injury to the head.
2. Hard hats must comply with ANZI Z89.1-1986.
3. Hard hats should not be worn over a hat or cap. Special hard hat liners are available if necessary for protection from cold weather.
4. Hard hats should be inspected regularly. Replace the hard hat if it has a crack or hole, or if it has sustained a heavy blow. Do not drill or cut hard hats.
5. Non-conductive hard hats (class B or C) are required for protection from electrical hazards.

Eye and Face Protection

1. Eye and face protection must be worn in areas where a reasonable or obvious risk exists for chemical splashes, flying objects or physical hazards that could result in an eye or face injury.
2. PPE for eye and face protection must comply with ANSI Z87.1-1989.
3. For flying particles, safety glasses with side shields or goggles may be specified for protection. Face shields over goggles may be required to protect against a high volume of flying objects.
4. When working in a lab where chemicals are being used, chemical splash goggles must be worn.
5. Side shields cannot be removed from safety glasses.
6. Normal prescription glasses do not provide adequate protection from injury to the eye and do not meet ANSI eye protection specifications. Safety glasses must be worn over regular prescription glasses, or prescription safety glasses may be obtained, but they must have side shields.
7. Inspect eye and face protection frequently for cleanliness, proper fit, and scratches that impair vision. Adjust, replace or have repaired as needed.

Hand Protection

1. Hand protection must be worn when necessary to protect against chemical exposure and physical hazards such as thermal (hot or cold) burns, abrasions, cuts, slivers, etc.
2. Select the right type of glove for the job and conditions. Appendix B of the *Chemical Hygiene Plan for Laboratories* contains a chemical compatibility guide for gloves. In general:

- Leather is a good choice for protection against rough surfaces, sparks, chips and moderate heat.
 - Cloth protects in general shop conditions from dirt, chafing, abrasions, wood splinters and low heat.
 - Rubber and nitrile protect against some acids, some chemical burns and electrical shock.
 - Plastic protects against some chemicals and corrosives. Refer to Appendix B of the *Chemical Hygiene Plan for Laboratories* before choosing gloves for chemical use.
3. Make sure gloves fit properly.
 4. Inspect gloves often for cracks, holes, tears, good flexibility, and grip.

Torso Protection

1. The purpose of protective apparel is to provide protection for the body from injury from sharp objects, chemical exposure, and temperature extremes.
2. Lab coats, chemical resistant aprons, and disposable Tyvek suits are examples of protective apparel.
3. Proper selection should be based on intended use. Contact EHS for assistance.

Foot Protection

1. Safety shoes or boots are required to protect against heavy objects, chemical splashes and spills, and punctures and should be worn when these dangers exist.
2. Safety shoes and boots must meet the ANSI Z41-1991 standard, which provides for both impact and compression protection.

Hearing Protection

1. OSHA requires that all employees exposed to a time-weighted noise level of 85 decibels (dBA) or greater be included in a hearing conservation program. No areas or tasks on the Montana Tech campus have been identified as exceeding this limit. However, hearing protection is still highly recommended in noisy areas or when performing tasks with noisy equipment or machinery.
2. Either earplugs or earmuffs are selected for protection against hearing damage or loss. Contact EHS for specific recommendations.

Respiratory Protection

1. Montana Tech has a Respiratory Protection Program. The requirements of the program include medical evaluation, fit testing of the respirator, and training in all aspects of respirator use.
2. Employees who wear respirators must be included in this program. Contact EHS for information.

Appendix B: PPE Required by Job Classification

Stationery Engineer (Boilermen)	
Working with chemicals	Appropriate gloves, splash goggles, proper ventilation
Mixing chemicals	Appropriate gloves, splash goggles or safety glasses/face shield together, proper ventilation
Welding	Appropriate welding hoods or goggles, gloves, and hearing protection
Grinding	Safety glasses and face shield, and hearing protection
Working with steam, hot surfaces	Safety glasses or face shield with safety glasses, gloves
Using power tools including jackhammer	Safety glasses, gloves, hearing protection, and foot protection. Respirator required if jackhammering cement.
Any task where foot hazards are present (chemical exposure, compression, impact)	Foot protection
Any head hazard where serious injury could occur	Hard hat
Maintenance/Engineer	
Changing filters on ventilation systems	Full-face respirator with P100 (HEPA) filters, Tyvek suit, gloves
Welding	Appropriate welding hoods or goggles, gloves, and hearing protection, proper ventilation
Electrical work	Appropriate gloves, safety glasses
Working with steam	Appropriate gloves, safety glasses
Unloading trucks	Foot protection, leather gloves
Cutting, grinding	Safety glasses & face shield, hearing protection
Using power tools including jackhammer	Safety glasses, gloves, hearing protection, and foot protection. Respirator required if jackhammering cement.
Grounds Personnel	
Chipping ice	Safety glasses, gloves, and foot protection
Moving furniture, barrels, etc.	Leather gloves, foot protection
Using jackhammer	Foot protection, hearing protection, safety glasses. Respirator required if jackhammering cement.
Using weed-eater and lawn mower	Safety glasses, hearing protection
Mixing chemicals	Splash goggles or safety glasses and face shield, ventilation, appropriate gloves

Painters	
Working below where others are working	Hard hat
Mixing chemicals	Splash goggles or safety glasses and face shield, appropriate gloves, ventilation
Sanding, scraping	Half-face or full-face respirator with P100 (HEPA) filters if ventilation is not adequate, appropriate gloves
Using chemicals for cleaning, stripping	Gloves appropriate for chemicals being used, safety glasses, and proper ventilation or half-face respirator with cartridges appropriate for chemicals.
Using power tools, including grinding	Safety glasses, gloves, hearing protection, foot protection, and face shield
Spray painting	Half-face respirator and goggles or full-face respirator with appropriate cartridge, appropriate gloves
Carpenters	
Sanding, cutting, grinding	Safety glasses, hearing protection, foot protection, respiratory protection where ventilation is not adequate
Carrying wood, cement forms, building materials	Foot protection, appropriate gloves
Cleaning tools with chemicals	Safety glasses, appropriate gloves, ventilation
Using power tools including jackhammer	Safety glasses, gloves, hearing protection, and foot protection. Respirator required if jackhammering cement.
Custodians	
Cleaning bathrooms, handling trash	Appropriate gloves
Mixing chemicals, transferring chemicals into other containers	Appropriate gloves, safety glasses, proper ventilation if required
Laboratory Workers	
Handling/mixing chemicals	Appropriate gloves, splash goggles, face shield if necessary, lab coat to protect clothing, proper ventilation
Working with compressed gases	Safety glasses or goggles
Working with extremely hot or cold items	Proper gloves, safety glasses or goggles
Working with loud equipment, grinding rocks	Hearing protection, safety glasses or goggles