



UNIVERSITY OF MINNESOTA
Health, Safety and Risk Management

Personal Protective Equipment Program

Effective Date: 11/2023

I. PURPOSE

Personal Protective Equipment (PPE) is equipment worn to minimize exposure by creating a barrier between workers and a hazard. PPE is the last line of defense after elimination, substitution, engineering controls and administrative controls are considered to block the path between the worker and the hazard. PPE includes items such as gloves, safety glasses, shoes, earplugs or muffs, hard hats, respirators, coveralls, or high visibility clothing. The purpose of this program is to assist departments in the requirements of completing a hazard assessment and choosing proper PPE as required by the Occupational Safety and Health Administration (OSHA).

II. SCOPE

This program applies to University of Minnesota employees who are required to wear Personal Protective Equipment and departments that provide Personal Protective Equipment.

III. AUTHORITY

This Personal Protective Equipment Program is part of the University's Occupational Health and Safety administrative policy, which charges Health, Safety and Risk Management with providing leadership, resources, and services to ensure that the University provides a healthy and safe workplace, and that all applicable regulations, policies, and procedures are being implemented and compliance is met. As stated in the policy, all health and safety programs must be followed by all University staff when applicable to the type of work being performed.

IV. DEFINITIONS

ANSI – American National Standards Institute.

Hazard – A potential source of danger to humans.

Hazard Control – A means of minimizing or eliminating exposure to hazards.

Hazards Assessment – A documented evaluation of the potential hazards associated with work tasks to determine corresponding personal protective equipment requirements.

Personal Protective Equipment (PPE) – Equipment worn to minimize exposure to hazards that cause workplace injuries and illnesses. Personal protective equipment may include items such as gloves, safety glasses and shoes, earplugs or muffs, hard hats, respirators, coveralls, or high visibility vests.

V. RESPONSIBILITIES

Employee Responsibilities

- Comply with the procedures detailed in Section VI of this program and any further safety requirements set by supervisors.
- Wear all required PPE.
- Inspect PPE for damage or defects before use.
- Inform a supervisor of the need to repair or replace PPE.
- Inform a supervisor of a new hazard or a change in a process or procedure that would require a revision of the PPE Hazard Assessment.
- Care for, clean, and maintain PPE.

Supervisor Responsibilities

- Ensure a PPE Hazard Assessment for work areas and tasks has been completed and reviewed.
- Identify and provide appropriate PPE for employees.
- Stock and replace PPE as necessary.
- Train employees in the use, care, and limitations of the issued PPE.

Departmental Responsibilities

- Retain records of PPE hazard assessments and training.
- Purchase PPE for employees.

Health, Safety and Risk Management Responsibilities:

- Reviews the written program periodically and monitors to ensure compliance with this program.
- Consult on appropriate PPE for work areas when requested.
- Assist supervisors with conducting hazard assessments.

VI. PROCEDURE

Hazard Identification Process:

Hazards in the workplace must be identified before mitigation controls can be put in place, such as PPE. Workplace hazards are sources of potential harm to employees in the workplace. These potential hazards can vary depending on the job task and potential sources of harm. Common hazards that may be identified include but are not limited to the following categories:

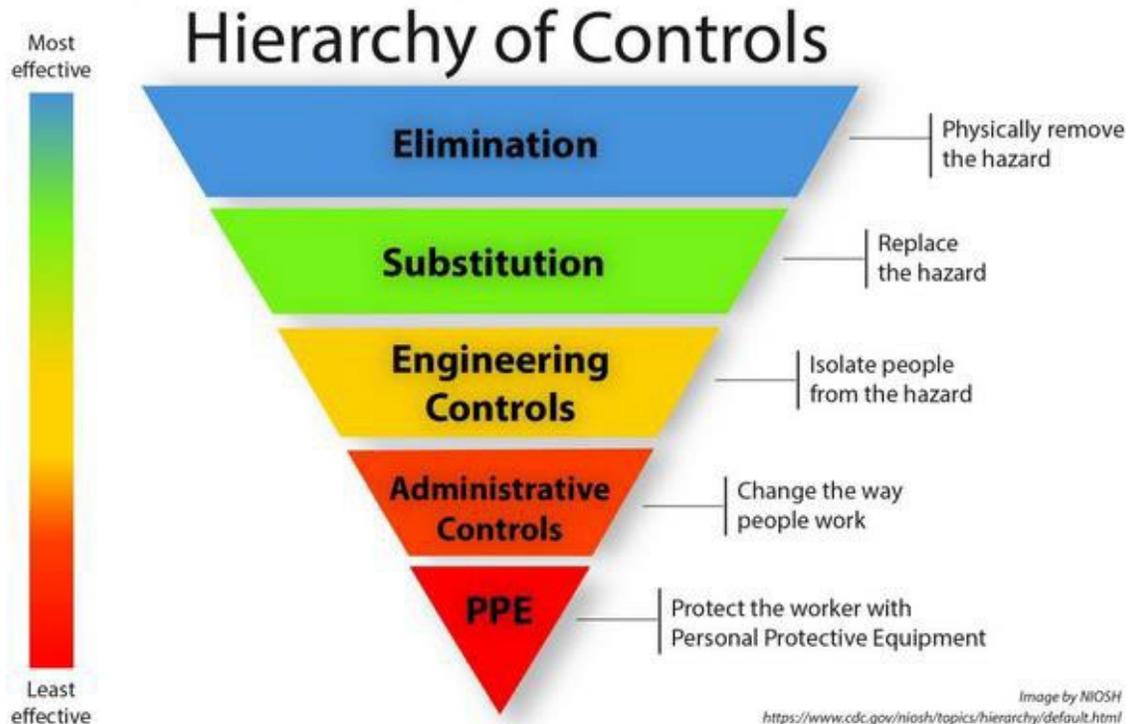
- *Impact* – exposure to high velocity matter moving with enough force to cause harm by impacting someone. These could be particles, chips, falling objects, vibration, or high-pressure liquids.
- *Penetration* – cutting or penetrating objects. Examples include working with glass, wire, metal, sharp objects, or other materials that can cut or pierce when broken or fragmented.
- *Compression* – crushing or pinching hazards. Examples include the use of heavy equipment or tools that could cause pinching or crushing injuries, etc.
- *Thermal* –intolerable hot or cold temperatures. Examples include using furnaces, welding, steam, or cryogenic materials.
- *Chemical* – irritating, toxic, or corrosive substances. Examples include carcinogens, mutagens, teratogens, corrosives, poisons, liquids and vapors.
- *Optical radiation* – intense ultraviolet, visible, or infrared non-ionizing radiation. Examples include high power lasers, UV lamps, or welding arcs.
- *Biological* – These are microorganisms or infectious agents that are capable of causing disease.
- *Ionizing Radiation* – Radiation with enough energy to ionize other atoms (remove electrons). Examples include medical imaging devices (X-rays), radiography equipment and certain laboratory equipment.
- *Dusts/particulates* – particulates that may damage the respiratory system. Examples include welding fumes, crystalline silica dusts, or asbestos fibers.

Hazard Controls:

When hazards in work locations are identified, the person conducting the PPE Hazard Assessment must determine if other forms of hazard controls are suitable. Personal Protective Equipment may only be selected as the sole hazard control if all other forms of hazard controls are not possible or don't adequately reduce the risk of injury or illness.

The Hierarchy of Controls in order of effectiveness:

1. *Elimination*: Remove the hazard.
2. *Substitution*: Replace the hazard with something less hazardous.
3. *Engineering controls*: A physical change to the environment that abates the hazard.
4. *Administration controls*: Change the way people work that minimizes the hazard.
5. *Personal Protective Equipment*: When all other controls are not feasible or do not provide sufficient protection, the use of PPE is required if PPE would mitigate the identified hazard.



If no other hazard controls are effective in mitigating or controlling the hazard, then the supervisor who oversees the hazard assessment must assign the appropriate PPE to employees for protection against the hazard.

PPE Hazard Assessment:

All work locations or job tasks where hazards to health and safety exist are first required to complete a PPE Hazard Assessment (Appendix A or an equivalent assessment). The assessment will identify the hazard and document the proper PPE to be used for protection. Even if PPE will not be required, the hazard assessment is still required. A PPE Hazard Assessment must be re-evaluated periodically, when a new hazard is introduced into a work location, or when there is a change in a process or procedure. The PPE Hazard Assessment must be retained as long as the work location or job task exists.

General PPE requirements:

All PPE should be of safe design, construction, and must be able to protect against the hazard identified in the PPE Hazard Assessment. PPE must be maintained in a sanitary and serviceable condition. Departments must take the fit and comfort of PPE into consideration when selecting appropriate items for their workplace. A variety of PPE options must be provided to account for differences in employee sizes and for fit and comfort of the applicable PPE.

Required PPE is provided to employees by their department or supervisor. Employees cannot provide their own PPE from home unless it is approved by their supervisor and provides the same level of protection to the employee.

PPE must meet an applicable industry design, construction, or testing technical standard. Examples of applicable technical standards include but are not limited to:

- Eye protection – ANSI/ISEA Z87.1
- Head protection – ANSI Z89.1
- Foot protection – ASTM F-2412-18a: Standard Test Methods for Foot Protection and ASTM F-2413-18 Standard Specification for Performance Requirements for Protective Footwear.
- Cut Protection - ANSI/ISEA 105-2016

These are some common examples of PPE:

- *Eye and Face Protection:* safety glasses, goggles, face shields, and welding masks.
- *Head Protection:* hard hats and bump caps.
- *Foot Protection:* safety-toed boots, non-slip shoes, or chemical resistant footwear.
- *Hand and Arm protection:* gloves for cut, chemical, or biological resistance.
- *Body Protection:* aprons, lab coats, hazardous material suits, fall protection, and high visibility clothing.
- *Hearing Protection:* ear plugs or muffs.

Specific PPE Program & Requirements:

Written programs and procedures may have specific PPE requirements regarding training, use, selection of PPE, and other requirements. Listed below are some, but not all, of the programs and procedures that have specific PPE requirements:

- Hearing Conservation Program
- Respiratory Protection Program
- Fall Protection Program
- Chemical Hygiene Plan
- Exposure Control Plan for Bloodborne Pathogens
- Laser Safety Program
- Laboratory Animal Allergen Exposure Control Program

Training:

Department Specific Training:

All Employees who are required to wear PPE must take Training Hub Course: Personal Protection Equipment (PPE) Online training for PPE or equivalent training course. Supervisors are also required to train each employee who must use PPE. Employees must be trained on job or task specific PPE to understand the following items:

- When PPE is necessary
- What PPE is necessary
- How to properly put on, take off, adjust, and wear the PPE
- The limitations of the PPE
- Proper care, maintenance, useful life, and disposal of PPE

Every employee must demonstrate an understanding of the PPE training as well as the ability to properly use and maintain PPE before they are allowed to perform work requiring the use of their PPE.

These situations that require additional or retraining of employees on PPE use:

- Any changes to PPE in the workplace. For example, a new chemical is introduced requiring the use of nitrile gloves.
- If a supervisor believes that a previously trained employee does not demonstrate the proper understanding and skill level in the use of PPE, that employee should receive retraining before performing the task requiring said PPE.

Each department must document the training with the name of each employee trained, the date of training and a description of the training. The name of the person conducting the training, their job title, and qualifications must be recorded. Training documentation is required to be retained for 3 years.

Cleaning and Maintenance:

Employees are responsible for cleaning and maintaining the PPE that has been issued to them. PPE must be inspected, cleaned, and maintained at regular intervals to ensure adequate protection and performance. Damaged or compromised PPE must not be used. If damaged PPE cannot be repaired, it must be disposed of in an appropriate manner. PPE that is designed to be disposable but cannot be decontaminated must be disposed of as follows:

- PPE that is contaminated with a hazardous chemical is disposed of in the appropriate hazardous waste container.
- PPE that is contaminated with radioactive material is disposed of in a waste container designated for radioactive material.
- PPE that is contaminated with biological materials is disposed of in the appropriate biohazardous waste container.

VII. REFERENCES (relevant internal and external documents)

General Industry Occupational Safety and Health Regulations, 29 CFR 1910, Subpart I.

- General Requirements (1910.132)
- Eye and Face Protection (1910.133)
- Respiratory Protection (1910.134)
- Head Protection (1910.135)
- Fall Protection (1910.140 & 1910.23)
- Foot Protection (1910.136)
- Electrical Protective Equipment (1910.137)
- Hand Protection (1910.138)

Appendix A:

Personal Protective Equipment (PPE) Assessment Form	
Department:	Date:
Job title:	Work Location:
Job Task/Activities:	
Hazard Present (Check all that Apply)	Describe Hazards (Flying debris, cuts, toxic chemical, aerosols, etc.)
<input type="checkbox"/> Impact (exposure to high velocity objects)	
<input type="checkbox"/> Cuts/Penetration (sharp or pointed objects)	
<input type="checkbox"/> Compression/Crushing (pinching, falls, blunt objects)	
<input type="checkbox"/> Thermal (Cold/Hot extremes)	
<input type="checkbox"/> Chemical (Irritating, toxic, or corrosive substances)	
<input type="checkbox"/> Optical Radiation (ultraviolet, visible, infrared, non-ionizing)	
<input type="checkbox"/> Biological (infectious agents)	
<input type="checkbox"/> Dust/particulates (harmful particulates)	
<input type="checkbox"/> Other	
Personal Protective Equipment (PPE) Required	
<input type="checkbox"/> Eye	
<input type="checkbox"/> Hand	
<input type="checkbox"/> Head	
<input type="checkbox"/> Body	
<input type="checkbox"/> Foot	
<input type="checkbox"/> Respiratory	
<input type="checkbox"/> Hearing	
<input type="checkbox"/> Other	
Assessment completed by:	Date: