

# **PPE**

# PERSONAL PROTECTIVE EQUIPMENT PROGRAM

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### **Personal Protective Equipment (PPE) Program**

#### Section 1. Introduction

The OSHA general industry standards found in 29 CFR 1910, identify several separate but related requirements pertaining to PPE. They include:

- 1910.132 General Requirements
- 1910.133 Eye and Face Protection
- 1910.134 Respiratory Protection
- 1910.135 Head Protection
- 1910.136 Foot Protection
- 1910.137 Electrical Protective Equipment
- 1910.138 Hand Protection

General requirements referenced in 1910.132, requires employers to determine if hazards are present in the workplace. If hazards are identified and engineering and administrative control methods or safe work practices are unable to fully eliminate or control them, then the use of appropriate PPE must be implemented in order to protect employees. PPE includes devices for head protection, eye and face protection, protective clothing, hand protection, foot protection, hearing, and respiratory protection. Using PPE requires hazard awareness and training on the part of the user.

The standards also cover:

- 1. The performance criteria for PPE based on ANSI, ASTM, NIOSH, or other recognized consensus standards.
- 2. The minimum training requirements for each employee.

#### Section 2. Purpose

The purpose of this PPE program is to protect employees from the risk of injury by creating a barrier against workplace hazards they may be exposed to. PPE is provided, used, and maintained when it has been determined that its use is necessary to eliminate or reduce the likelihood of occupational injury and/or illness. Although PPE is not a substitute for engineering and administrative controls or safe work practices, it is used as a "last resort" when these control methods are not feasible. In addition, PPE may be used in conjunction with these control methods to ensure the safety and health of employees. The use of appropriate PPE not only applies to employees, including faculty and staff, but also to students, visitors, and volunteers performing tasks or entering areas that require specific PPE.

This PPE program addresses eye, face, head, foot, and hand protection. Separate programs exist for respiratory and hearing protection since the need for participation in these programs is established through industrial hygiene monitoring.

#### Section 3. Roles and Responsibilities

Specific responsibilities for carrying out this program are identified by position below.

#### Provosts:

Support and provide resources for the overall program.

#### Campus Safety Officers:

- Review the written program annually and recommend necessary updates.
- Assist with PPE hazard assessments.
- Assist the NHED Safety Administrator in ensuring program elements are implemented across the campus.
- Maintain records on hazard assessments.
- Assist with evaluating the overall effectiveness of the program.

#### NHED Safety Administrator:

- Ensure annual review and necessary updates to program.
- Ensure employee training records are maintained.
- Provide direction and assistance with hazard assessments.
- Provide guidance to supervisors on the selection and purchase of approved PPE.
- Evaluate the overall effectiveness of the program.

#### Deans/Supervisors:

- Oversee and support the program for their departments/work areas.
- Provide resources to purchase and make available all necessary PPE.
- Conduct and ensure that workplace hazard assessments are completed to determine if a need exists for the use of PPE.
- Oversee and ensure employees are trained on the proper use, care, and cleaning of approved PPE.
- Supervise staff to ensure that the program elements are followed and that employees properly use and care for PPE.
- Communicate hazards to employees.
- Update assessments when new hazards are introduced or when processes are added or changed.
- Periodically re-evaluate the suitability of previously selected PPE.
- Evaluate and review the program effectiveness and communicate concerns to the campus Safety Officer and NHED Safety Administrator.

#### Employees:

- Understand the hazards and safe operating procedures for the job.
- Wear necessary PPE in designated areas, when hazards are present, and when it is required to perform tasks safely.
- Use and maintain PPE as designed and required.
- Attend required training sessions.
- Promptly remove and inform the supervisor of damaged/defective PPE for repair or replacement.

#### **Section 4. Hazard Assessment and Equipment Selection**

The goal is to eliminate or minimize job and work environment hazards through engineering and administrative controls or safe work practices, whenever possible. When these control methods are not feasible, appropriate PPE must be selected to provide employees with protection against hazards. It is important to remember that PPE is not a substitute for engineering and administrative controls or safe work practices, but should be used in conjunction with these controls.

The PPE Hazard Assessment form in Appendix 1 of this program lists considerations for task and environment related hazards in regard to eye/head, body/torso, foot/leg, hand/arm, respiratory, and hearing/ear hazards which is used to determine the specific PPE needs within each campus. Supervisors, working in conjunction with the campus Safety Officer and NHED Safety Administrator, are responsible for hazard assessments and the selection of appropriate PPE. They are to periodically re-evaluate the requirements for existing tasks or work environments, assess new potential hazards associated with changes to processes, products, equipment, tasks, etc., or when complaints are received. The use of required PPE must be enforced for job and work environment hazards. Campus master lists of identified job and work environment hazards along with PPE requirements are to be documented and maintained.

Criteria used for hazard assessment and determination of required PPE is as follows:

#### Eye/Head Protection

Eye protection must be worn where there is potential for injury to the eyes or face from small particles, chemicals, flying objects or particles, large objects, blood or OPIM, thermal or radiation hazards, and lasers. According to the types of and extent of hazards, different PPE must be worn. PPE for the face and eyes includes safety glasses, goggles, and faceshields. These must always remain clean and free of contaminants. They must be worn in all designated areas requiring safety glasses and in any other areas where it is determined or anticipated that possible eye hazards exist. For employees who wear prescription glasses, side shields must be permanently affixed to the frames to protect eyes from flying particles. Side shields on eyeglass frames must meet ANSI Z87.1 requirements and must not be removed. The employee's work department is responsible for covering a determined cost of prescription eyewear materials such as, frames and impact resistant lenses. Temporary or part-time employees must be provided eye protection, including safety glasses that can be placed over their personal prescription glasses.

Head injuries are commonly caused by impact from falling or flying objects and falling or walking into objects. PPE such as hard hats are designed to help protect an employee from injury due to striking or being struck by objects and, in a limited circumstances, from electrical shock or burns. Hard hats must be worn in areas where there is potential for injury to the head.

- Body/Torso Protection
  - Protective clothing, such as lab coats, must be worn when handling hazardous materials. This is to prevent the contamination of skin and clothing.
- Foot/Leg Protection

Wearing the appropriate footwear is important when working in areas where physical and chemical hazards are present. Injuries that may occur when the proper footwear is not worn include slipping, compression and contact injuries, chemical and heat burns, and electrical shocks. Close-toed, heeled shoes must always be worn in designated work areas or where hazards to the feet are present. Steel-toed footwear must be worn in designated areas where potential crushing injuries to the feet have been determined or any other work area or task where similar hazards are present.

- Hand/Arm Protection
  - Selecting the proper glove for the job is very important since it is our hands that are often used to handle and work with materials. These materials can consist of caustic or toxic chemicals, biological substances, electrical sources, and hot or cold objects that may irritate or burn hands. In addition, traumatic injuries such as cuts, sprains, abrasions, and punctures may also occur. With the wide range of hazards, there also exists a wide range of gloves that may be used as PPE. It is important to select the appropriate glove for the related hazard.
- Respiratory Protection (please refer to the NHED Respiratory Protection program for more information)
   Respirators are used to prevent the exposure to air contaminated with harmful particulates, gases, vapors, or other airborne hazards. All respirator usage requires pre-approval, including a medical evaluation, fit testing, and training prior to use.
- Hearing/Ear Protection (please refer to the NHED Hearing Conservation program for more information)
   Exposure to hazardous levels of noise may result in hearing loss or damage. PPE must be worn when the noise level is 85 decibels or greater averaged over an 8hour period of time. Effective types of hearing protection devices include earmuffs and earplugs.

Criteria used for the selection of PPE is as follows:

- PPE selected must comply with ANSI, ASTM, NIOSH, or other recognized consensus standards.
- Hand protection is to be selected based on the performance of the hand protection with respect to the hazard identified. Other considerations may include the tasks to be performed, conditions present, and the duration of use.

#### Section 5. Training

Employees required to use PPE are to be trained in the following areas:

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

Employees are required to demonstrate an understanding of the training and the ability to use PPE properly.

Retraining or refresher training may take place if:

- There is a change in the workplace or job activities.
- There is a change in the type of PPE required.
- There is a reason to believe that an employee does not have the skill or understanding to effectively use the required PPE.

Records of training are to be documented and retained for a minimum of 3 years. Training documentation includes:

- 1. Date and location of training.
- 2. Names of employees attending and their signatures.
- 3. Name and title of person conducting the training.
- 4. Brief summary of material covered.

Records of PPE hazard assessments are to be maintained for each evaluated worksite for a minimum of 3 years.

#### Section 6. Program Review

Annual reviews of the PPE program and PPE Hazard Assessment form are to be conducted and documented, including any changes or additions to the program or other related documents.

#### **Appendix 1. PPE Hazard Assessment Form**

Assessed By:	Job Title:			
Assessment Date:	Facility:			
Work Area/Job:		Special Hazard(s):		
Eye/Head Hazards				
Section 1 Hazards (Check all potential hazards)		Section 2 (Check all recommended PPE for hazards identified in Section 1)		
☐ Impact From Flying Debris		☐ Safety Glasses w/Side Shields, Safety Goggles		
☐ Chemical Splash/Contact		☐ Chemical Goggles, Indirect Vent		
☐ Heat/Sparks/Hot or Cryogenic Liquid Splash		□ Faceshield		
☐ Intense Light/Optical Radiation		UV Shaded Goggles/Faceshield		
□ Blood/Body Fluid Splash		Special Protective Eyewear (e.g. lasers)		
☐ Impact w/Falling/Stationary Overhead Objects☐ Other:	☐ Oth	d Hats/Bump Caps		
Body/Torso Hazards		₹I.		
Section 1 Hazards (Check all potential hazards)	Section	1 2 (Check all recommended PPE for hazards identified in Section 1)		
		□ Chemical Resistant Apron		
		☐ Flammable Resistant Clothing/Leathers		
		□ Splash Protection - Aprons/Gauntlets		
· · · · · · · · · · · · · · · · · · ·		☐ Cut Proof Vest (e.g. Kevlar)		
		□ Other:		
Foot/Leg Hazards				
Section 1 Hazards (Check all potential hazards)	Section	n 2 (Check all recommended PPE for hazards identified in Section 1)		
☐ Chemical Contact	☐ Che	mical Resistant Footwear		
☐ Compression/Impact w/Heavy Objects/Equip		☐ Steel Toe Boots		
☐ Piercing/Puncture of Sole		el Shank Boots		
Slip/Trip/Fall		i-Skid Footwear		
Cut/Laceration		Cut Proof Chaps and/or Boots (e.g. Keylar)		
☐ Hot Liquids Materials/Molten Metal ☐ Cold and/or Wet Environments		ding/Torching Leather Boots or Boot Spats lated and/or Water Resistant Boots		
Other:				
Hand/Arm Hazards				
Section 1 Hazards (Check all potential hazards)	Section	1 2 (Check all recommended PPE for hazards identified in Section 1)		
☐ Impact/Abrasion/Pinch	1	lated/Hot Gloves		
■ Burns - Extreme Temperatures – Hot/Cold	☐ Leat	ther/Heat Resistant Gloves		
□ Cut/Laceration/Puncture/Penetration	■ Insu	lated or Cryogenic Gloves/Gauntlets		
☐ Chemical Contact	☐ Cut	Resistant/Proof Gloves		
☐ Blood/Body Fluid Contact	☐ Che	mical Resistant Gloves		
□ Electricity		ex Gloves		
Other:	□ Oth	er:		
Respiratory Hazards				
Section 1 Hazards (Check all potential hazards)		1 2 (Check all recommended PPE for hazards identified in Section 1)		
□ Dust □ Mist □ Fume □ Fiber		me Hood/Spray Booth/Local Exhaust System		
Other Particulate:		ator (check the appropriate boxes below)		
☐ Asphyxiant ☐ Gas ☐ Vapor ☐ Other:		If Face  Full Face  Air Purifying  Supplied Air Cartridge Type:		
Hearing/Ear Hazards				
Section 1 Hazards (Check all potential hazards)  Section 2 (Check all recommended PPE for hazards identified in Section 2)				
□ Loud/Explosive Noise Generation		Muffs or Ear Plugs/Inserts		
Other:	☐ Oth			