



Safety and Risk  
Management

# Personal Protective Equipment (PPE)

1910.132 OSHA Personal Protective Equipment

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## Purpose

The purpose of the Personal Protective Equipment (PPE) program is to ensure that affected employees can identify and control work situations that require the use of PPE. This is accomplished by establishing guidelines and requirements that university supervisors and employees must uphold. There are various hazards associated with the work environment and this program has been developed to assist in protecting university employees.

University employees, depending on work tasks, have the potential to encounter hazards to the eyes, face, and extremities and shall be provided PPE whenever it is necessary due to the hazards presented by the job. In compliance with the provisions of the Occupational Safety and Health Act of North Carolina (OSHA NC), the University will furnish at no cost to the employee, certain PPE required for the job.

PPE should not be used as a substitute for engineering, work practices, and/or administrative controls to protect employees from workplace hazards. PPE should be used in conjunction with permanent protective measures, such as engineered guards, substitution of less hazardous chemicals, and prudent work practices.

## Definitions

**Eye and Face Protection:** Equipment designed to provide protection to the face and eyes during exposure to such hazards as flying particles, molten metal or sparks, liquid chemicals, acids or caustic liquids, or potentially injurious light radiation (i.e., lasers, welding, etc.)

**Foot Protection:** Equipment designed to provide protection to the feet and toes during exposure to such hazards as falling or rolling objects, chemical or liquid exposures, piercing objects through the sole or uppers, and/or where the employee's feet are exposed to electrical hazards.

**Hand Protection:** Equipment designed to provide protection to the hands during exposures to potential hazards such as sharp objects, abrasive surfaces, temperature extremes, and chemical contact.

**Hazard Assessment:** The process used to identify hazards in the workplace and to select the appropriate personal protective equipment to guard against potential hazards (see Hazard Assessment Guidelines at the end of this program).

**Head Protection:** Equipment designed to provide protection to the head during exposure to potential hazards such as falling objects, striking against low hanging objects, or electrical hazards.

**Personal Protective Equipment:** Any devices or clothing worn by the worker to protect against workplace hazards. Examples include respirators, gloves, chemical splash goggles, safety glasses, lab coats, etc.

**Projectiles:** Flying objects such as large chips, fragments, particles, sand, and dirt. Activities that produce these hazards include chipping, grinding, masonry work, woodworking, sawing, drilling, chiseling, riveting, and sanding.

## Responsibilities

### Safety and Risk Management

Safety and Risk Management has the primary responsibility for the implementation and enforcement of the Personal Protective Equipment (PPE) program and is responsible for the following:

- Developing, implementing, and evaluating the PPE program to ensure compliance.
- Providing technical assistance on proper care, use, selection, maintenance, and disposal of PPE.
- Assisting supervisors with employee training.

### Supervisors

Supervisors in support and administrative areas are responsible for providing the necessary direction to ensure the effective implementation of the PPE Program for their work areas. Supervisors are responsible for the following:

- Comply with all PPE established procedures.
- Ensure employees complete required training.
- Provide appropriate PPE to the employee.
- Ensure employees are using PPE properly while working.
- Inspect all PPE to ensure that it is safe to use.

### Employees

Affected employees are responsible for the following:

- Comply with all established PPE procedures.
- Attend and complete all training requirements.
- Inspect all PPE before and after use.
- Properly wear all required PPE.
- Maintain all PPE as required by the manufacture.
- Immediately report all damaged or defective PPE to the supervisor.

## Purchase and Payment of Personal Protective Equipment

### **When PPE is Required**

The University will provide, at no cost to the employee, all personal protective equipment which the employee does not wear or use off the job site. OSHA states that payment is required for any PPE used by an employee to comply with one of the PPE requirements in OSHA's standards. If the PPE is not required, then the employer is not required to pay for it. However, when an employer selects a specific type of PPE to be used at the workplace to comply with a standard, the employer is required to pay for it.

### **Safety-Toe Footwear and Prescription Safety Eyewear**

OSHA states that the employer is not required to pay for non-specialty safety-toe protective footwear (including steel-toe shoes or steel-toe boots) and non-specialty prescription safety eyewear, provided that the employer permits such items to be worn off the job-site. If the employer requires employees to keep

non-specialty safety-toe protective footwear, and non-specialty prescription safety eyewear at the workplace, then the employer must pay for the items.

### **Everyday Clothing and Weather/Temperature Issues**

OSHA states the employer is not required to pay for everyday clothing, such as long-sleeve shirts, long pants, street shoes, and normal work boots. This also applies even when the employer requires employees to use these items, and the clothing provides protection from a workplace hazard. Also, the employer is not required to pay for ordinary clothing, skin creams, or other items used solely for protection from weather, such as winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, and sunscreen. If ordinary weather gear is not sufficient to protect the employee, and special equipment or extraordinary clothing is needed to protect the employee from unusually severe weather conditions, the employer is required to pay for the protection. Clothing used to protect employees from artificial heat or cold is not part of this exception.

### **Lifting Belts**

Employers are not required to pay for lifting belts because they are not recognized by OSHA as effective engineering controls to prevent back injury. While they may be accepted by individual workers because they feel as if they provide additional support, the effectiveness of lifting belts in the prevention of low back injuries has not been proven in the work environment.

### **Replacement of PPE**

Under OSHA the employer must pay for replacement PPE, except when the employee has lost or intentionally damaged the PPE.

### **Employee-Owned PPE**

Where an employee provides adequate protective equipment which they own and bring to the work environment, the employer may allow the employee to use but is not required to reimburse the employee for that equipment. However, the employer shall not require an employee to provide or pay for their own PPE, unless the PPE is excluded by OSHA. In the event that the employee brings their own PPE, it must be under the following conditions:

- The employee's use of their own PPE must be completely voluntary.
- The employee can withdraw use of their own PPE at any given time.
- If the employer allows an employee to use PPE that they already own, the employer is still responsible for making sure the PPE is adequate, properly maintained, and sanitary under standard.

### **PPE Hazard Assessment**

Each department, in consultation with Safety and Risk Management Office, will assess the workplace to determine if hazards are present, or are likely to be present, and require the use of specific PPE. If such hazards are present, or likely to be present, the University will:

- Select and have each affected employee use the type of PPE that will protect the affected employee from the hazards identified in the workplace.
- Communicate PPE decisions to the employee.
- Select PPE that properly fits each affected employee.
- Document workplace hazard assessments using the PPE Hazard Assessment Certification Form.

## Training

The university will provide training to all employees who are required to use PPE while performing their work tasks. At a minimum, the training must include: when PPE is necessary, what PPE is necessary, how to wear PPE, limitations of PPE, and proper care of and maintenance of PPE. When there is a change in the work environment the employee must be retrained on the proper use of PPE. Employees must demonstrate that they have an understanding and the skills required to use the PPE properly.

## PPE Selection

Consideration is given to comfort and fit of PPE in relation to the assigned task to ensure that the PPE is effective and will be used properly. All PPE must meet the appropriate industry standards:

- Eye and face protection must comply with ANSI Z87.1
- Head protection must comply with ANSI Z89.1
- Foot protection must comply with ANSI Z41
- No industry standard is available for hand protection. However, selection must be based on performance characteristics of the hand protection in relation to the associated tasks and hazards.

## Head Protection

The basic head protection for consideration is the hard hat. The hard hat is designed to shield the head from the impact and penetration of falling objects, working in low clearance areas, and in some cases from high voltage electric shock and burns. They should be worn whenever the potential exists for injuries to the head due to falling objects or when clearance is restricted. For example: construction, electrical, or tree trimming.

Hard hat protection is effective only if the hat is adjusted to fit properly and is worn squarely on top of the head and not angled or resting to the back of the head. Also, hair shall be protected against being caught on moving machinery, subjected to sparks, or snagging objects by compacting long hair into the hard hat shell or using hair nets or ties so that it is not loose. There are three classes of hard hats:

**Class A / Class G (General):** in addition to impact and penetration resistance, provide electrical protection from low voltage conductors (rated for 2,200 volts).

**Class B / Class E (Electrical):** in addition to impact and penetration resistance, provide electrical protection from low voltage conductors (rated for 20,000 volts).

**Class C:** in addition to impact, penetration and resistance, provide no electrical protection. Usually made of aluminum.

Do not modify hard hats in any way without the approval of the Safety and Risk Management Office. Holes should never be drilled into a hard hat as this weakens the structure and reduces the protectiveness of the hard hat for the employee.

## Eye and Face Protection

Employees are required to use appropriate eye and face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemical, acids or caustic liquids, chemical gases or vapors, or light radiation. Employees are required to wear eye protection that provides side protection when there is a hazard from flying objects. Detachable side protectors (clip on shields) meeting the requirements of this section are acceptable. When applicable, secondary protective devices such as face shields must be worn in operations where the entire face needs protection from impact, heat, or chemical hazards.

Eye protection fitted with appropriated filter lenses is required when injurious light radiation exists, such as a laser or ultraviolet (UV) light.

Employees who use contact lenses should be aware that dirty or chemical environments may present additional hazards. Chemical vapors can penetrate the lens causing damage to the eye. Proper eye protection should always be utilized instead of, or in conjunction with contact lens. Contact lenses do not provide eye protection.

Where an employee whose vision requires the use of prescription (Rx) lenses must wear protective eyewear, they should have either protective devices fitted with prescription (Rx) lenses or protective devices designed to be worn over regular prescription (Rx) eyewear.

## Hand Protection

Hand protection is required to be worn in areas where potential hand hazards exist. These hazards include but are not limited to skin absorption, severe cuts or lacerations, severe abrasions, punctures, chemical or thermal burns, and temperature extremes.

- Selection of appropriate protection is based on performance characteristics, conditions of use, and duration of use.
- Glove materials must be appropriate for protection from the identified hazard.
- Assistance is provided from the Safety and Risk Management Office on selection.
- Gloves are replaced when damaged or contaminated.

## Foot Protection

Foot protection is required to protect employees working in areas where there is a danger of foot injury due to falling or rolling objects, exposure to piercing of the sole, or where protection is needed against electrical or chemical hazards. Employees are expected to wear shoes that are appropriate for the duties of their employment. Sandals or other open-toe style shoes are not permitted to be worn in laboratories, shops, or other job locations where glass, caustic or corrosive chemicals, or hot materials are used or handled. Protective footwear must comply with American Society Materials (ASTM) F-2413-05.

There are no exceptions made for uncomfortable shoes or “medical waivers”. If the employee is required to perform work tasks requiring safety shoes, then the employee must wear safety shoes or other toe protection complying with this program. If the standard safety toe footwear cannot be worn, then the employee will be offered external safety toe caps that may be worn over normal footwear. If the employee cannot wear the required protective equipment to perform a task safely, then the employee cannot be allowed to perform the task. The most important factor in solving the problem of uncomfortable safety shoes is buying shoes that fit and are designed for the type of work the employee performs.

## Protective Clothing

Protective clothing is worn to prevent injury from potential exposures associated with work and to protect the employee’s personal clothing.

- Protective clothing examples are coveralls, aprons, flame-resistant clothing, and laboratory coats.
- Protective clothing that is chemically or biologically contaminated cannot be worn in other work areas.
- When working with or around acids or alkalis, a full suit may be needed.
- Protective clothing must be worn as designed and not modified.

## Storage of PPE

PPE shall be properly stored to protect against environmental conditions that might reduce the effectiveness of the equipment or result in contamination during storage. PPE having a shelf-life limitation shall be checked periodically to ensure compliance with the expiration date.

## Maintenance of PPE

PPE, including employee-owned PPE, must be maintained in a sanitary and serviceable condition. PPE requiring specialized servicing as specified by the manufacturer shall be serviced by qualified personnel.

PPE used by an individual employee shall be visually inspected for defects or wear by the employee before each use. Such PPE shall be inspected frequently by the supervisor to ensure its serviceability.

## Prescription Safety Glasses and Foot Protection Reimbursement

Under the North Carolina Office of State Personnel PPE, special conditions are given to employees who purchase required safety shoe footwear and prescription safety eyewear.

- Prescription safety eyewear with side shields are 100% state funded except that employees shall pay for the cost of the eye examination.
- For safety shoe footwear, the state shall fund one pair per year, cost not to exceed dollar amount established biennially by the Office of State Budget and Management, which includes inflationary cost increase.
- For more information, contact the Safety and Risk Management Office.