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UNC CHARLOTTE

*Environmental Health and Safety*

# PERSONAL PROTECTIVE EQUIPMENT

UNC CHARLOTTE  
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## **I. Purpose**

The purpose of this written program is to assure compliance with Occupational Safety and Health Administration (OSHA) and the appropriate personal protective equipment (PPE) is selected and provided to employees. It is the goal of UNC Charlotte to use engineering controls as the primary method for protecting employees. However, when additional protection is necessary, appropriate PPE will be worn.

## **II. Scope**

This Personal Protective Equipment (PPE) Program applies to all UNC Charlotte employees. All employees are required to follow the minimum procedures outlined in this program. Any deviations from this program must be immediately reported to the Environmental Health and Safety Office.

## **III. Definitions**

### **A. Eye/Face Protection**

Equipment that is designed to protect the eyes and face. Examples of hazardous exposures to the eyes and face include flying particles, molten metal or sparks, liquid chemicals, acids or caustic liquids, potentially injurious light radiation (lasers, welding), and biological exposure.

### **B. Foot Protection**

Equipment that is designed to provide protection to the feet. Work activity that could cause injury to the feet include exposure to falling or rolling objects, objects piercing the sole, harmful chemicals, or electrical hazards.

### **C. Head Protection**

Equipment that is designed to protect the head from potential injury from falling objects, electrical hazards, or contact with overhead surfaces that could cause injury.

### **D. Hand Protection**

Equipment that is designed to protect the hands from exposure to harmful substances, severe cuts or lacerations, abrasions, punctures, chemical burns, thermal burns, and harmful temperature extremes.

E. Hearing Protection

Equipment that is designed to protect the wearer's hearing during exposure to high noise levels.

F. Respiratory Protection

Equipment that is designed to protect the respiratory system of the wearer from harmful dusts, fogs, fumes, mists, gases, sprays, or vapors.

G. PPE

Devices worn by employees to protect against hazards in the environment.

H. PPE Hazard Assessment

The process of identifying hazards in the workplace and selecting appropriate PPE to protect employees against the hazards identified.

**IV. Program Responsibilities**

A. Executive Leadership

The University of North Carolina at Charlotte has legal responsibility for compliance with the occupational safety and health standards.

B. Program Administrator

The Environmental Health and Safety Office is responsible for:

1. Planning and recommending programs that adhere to all applicable federal, state, and local laws and regulations pertaining to environmental health and safety.
2. Assisting supervisors with implementing environmental health and safety programs in their areas.
3. Curtailing or stopping work that pose a clear and imminent danger to the health or safety of the University community.
4. Periodically reviewing the program and updating it as needed to ensure compliance with all applicable federal and state regulations.

C. Departmental Management

Management is responsible for:

1. Planning and developing budget requests for departmental safety programs.
2. Developing safety procedures, work practices, and safe working areas for all those under their supervision.
3. Supporting safety and health as a model to those they supervise.
4. Supplying appropriate equipment and training.
5. Enforcing environmental health and safety regulation by invoking disciplinary action or administrative sanction.

#### D. Employees

Every UNC Charlotte employee is responsible for conducting himself/herself in accordance with this program. All employees shall:

1. Adhere to all safety policies, programs, procedures, and practices while performing his/her duties in a safe manner.
2. Notifying your immediate supervisor of unsafe working conditions, potential hazards, and accidents as soon as possible.

#### V. PPE Hazard Assessment/Selection

Each work environment will be assessed to identify and remediate recognized hazards. The work environment may include construction sites, machine shops and laboratories. In most instances, these areas will have posted signage indicating the required PPE to gain access to the work environment. Additional hazard assessments will be required for specific hazardous job task in which engineering or administrative controls are not effective at eliminating hazards. In most situations, the manufacture's instructional manual or safety data sheet (SDS) will provide PPE hazard assessment and selection information. In other situations, where engineering or administrative controls are not effective at eliminating recognized hazards, the following hazard assessments steps must be completed.

- A. An onsite evaluation of employee's job task should be documented and certified on the PPE Hazard Assessment form.
- B. The form should be submitted to Environmental Health and Safety Office for safety consultation, analysis, and recordkeeping purposes.
- C. The appropriate PPE should be selected.
- D. The selected PPE, requirements for wearing, maintenance, and storage should be communicated to the employee.
- E. The PPE fit should be inspected and tested in a controlled environment.

## **VI. Head Protection**

Employees are required to wear appropriate head protection when exposed to:

- A. Falling or moving objects
- B. Hazards from exposed electrical conductors
- C. Impact hazards

## **VII. Eye and Face Protection**

Employees are required to wear appropriate eye and face protection (safety glasses, goggles, or face shields) when exposed to:

- A. Flying debris
- B. Molten metal
- C. Splashes involving chemicals
- D. Harmful mists, gases or vapors
- E. Laser, ultraviolet, or other intense illumination
- F. Splashes involving body fluids

Additionally, safety glasses, goggles, and face shields shall provide protection from flying debris entering from the side of the protective equipment. Eye and face protection shall accommodate prescription lenses, either by fitting over prescription lenses, or by incorporating them into its design.

Prescription safety glasses with side shields are 100% State funded. Employees are responsible for the cost of their individual eye examination.

## **VIII. Hearing Protection**

Employees should use appropriate hearing protection when required due to noise hazards associated with their job or workplace.

See the University's [Hearing Conservation Program](#) for the procedures and requirements for obtaining and using hearing protection.

## **IX. Respiratory Protection**

Respiratory protection is used to prevent exposure to airborne contaminants. The Respiratory Protection Program outlines specific compliance requirements for this type of PPE.

See the University's [Respiratory Protection Program](#) for the procedures and requirements for obtaining and using respiratory protective equipment.

## **X. Hand Protection**

Employees are required to wear appropriate hand protection when exposed to:

- A. Chemicals which may be absorbed through skin
- B. Chemicals which may damage the skin
- C. Objects which may cut or puncture the skin
- D. Biological agents, human or animal tissues, body fluids
- E. Harmful temperature extremes
- F. Radioactive materials

Hand protection is to be chosen according to the type of work performed. For example, gloves for chemical work should be chosen based on resistance to the specific chemicals being used. Gloves used for trash pickup should be cut and puncture resistant.

## **XI. Foot Protection**

Employees are required to wear appropriate foot protection when exposed to:

- A. Heavy objects may fall onto the feet
- B. Objects which may penetrate the shoe and cut or puncture the feet

Examples of safety footwear include:

- A. Slip-resistant shoes
- B. Steel toe shoes/boots
- C. Steel shank boots

The [safety shoe allowance](#) for state employees is \$100 per year.

## **XII. PPE for Electrical Work**

PPE required for electrical work includes, but is not limited to, insulating blankets, matting, covers, line hose, gloves, and sleeves. Specific information for electrical PPE is found in the [Electrical Safety in the Workplace Program](#).

## **XIII. Body Protection**

In some scenarios PPE may be required to protect an employee from job-specific hazards or unique hazardous scenarios. Some examples of these types of PPE are:

- A. Chemical splash aprons
- B. Protective coveralls
- C. Lab coats
- D. Disposable medical gowns
- E. Disposable shoe covers
- F. Welding aprons and/or sleeves
- G. Chainsaw chaps
- H. High visibility safety vests

#### **XIV. Training**

Each employee required to wear PPE must be trained. The training will consist of the following:

- A. When PPE is necessary
- B. What PPE is necessary
- C. How to properly don, doff, adjust, and wear PPE
- D. The limitations of PPE
- E. The proper care, maintenance, useful life and disposal of PPE

Re-training:

- A. Changes in the workplace rendering previous training obsolete.
- B. Changes in the types of PPE to be used rendering previous training obsolete.
- C. Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

# **APPENDICES**

**APPENDIX A – Hazard Assessment Form**

UNC Charlotte PPE Hazard Assessment Form			
<b>Name:</b>		<b>Department:</b>	
<b>I am assessing:</b>	<input type="checkbox"/> An employee's single job task	Name of Employee:	
		Working Title of Position:	
		Position Number:	
	<input type="checkbox"/> Job task for a career band of employees	Career Band/Title of Position(s):	
	<input type="checkbox"/> Worksite	Location:	
<p><b>Identified hazards in the workplace should be eliminated if possible. In the event that hazards cannot be eliminated, contact Environmental Health and Safety at (704) 687-1111 or <a href="mailto:EHSOffice@uncc.edu">EHSOffice@uncc.edu</a>.</b></p>			
Exposed Body Part	Job Task(s)	Select Hazard Type(s)	Select Personal Protective Equipment (PPE) Required
<b>Eye/Face</b> 		<input type="checkbox"/> Falling/Flying objects <input type="checkbox"/> Molten metal <input type="checkbox"/> Harmful dusts, mists, gases, vapors <input type="checkbox"/> Extreme heat/cold <input type="checkbox"/> Chemical <input type="checkbox"/> Radiation – laser, ultraviolet, etc. <input type="checkbox"/> Biological – body fluids <input type="checkbox"/> Arc flash	<input type="checkbox"/> Safety glasses w/ side shields <input type="checkbox"/> Goggles <input type="checkbox"/> Filter lenses – shade: _____ (2-14) <input type="checkbox"/> Laser goggles – OD: _____ (5-8) <input type="checkbox"/> Face shield <input type="checkbox"/> Welding helmet <input type="checkbox"/> Arc-rated face shield <input type="checkbox"/> Arc-rated flash suit hood

<p><b>Hand/Arm</b></p> 		<input type="checkbox"/> Molten metal <input type="checkbox"/> Chemical <input type="checkbox"/> Harmful mists, gases, vapors, dusts <input type="checkbox"/> Radiation - laser, ultraviolet, etc. <input type="checkbox"/> Biological – body fluid <input type="checkbox"/> Extreme heat/cold <input type="checkbox"/> Electrical shock and/or arc flash	<input type="checkbox"/> Chemical/Liquid resistant gloves <input type="checkbox"/> Temperature resistant gloves <input type="checkbox"/> Abrasion/Cut/Puncture resistant <input type="checkbox"/> Slip resistant gloves <input type="checkbox"/> Non-conductive gloves <input type="checkbox"/> Non-conductive sleeves
<p><b>Respiratory System</b></p> 		<input type="checkbox"/> Chemical <input type="checkbox"/> Harmful dusts, mists, gases, vapors <input type="checkbox"/> Biological <input type="checkbox"/> Radiation - laser, ultraviolet, etc.	<p>Contact EHS prior to selecting respiratory protection.</p> <input type="checkbox"/> Dust mask <input type="checkbox"/> N95-N99 respirator <input type="checkbox"/> Half-face respirator <input type="checkbox"/> Full-face respirator <input type="checkbox"/> Powered-air purifying respirator (PAPR)
<p><b>Hearing</b></p> 		<input type="checkbox"/> Excessive noise <input type="checkbox"/> Chemical	<p>Contact EHS prior to selecting hearing protection.</p> <input type="checkbox"/> Ear plugs <input type="checkbox"/> Ear muffs
<p><b>Head</b></p> 		<input type="checkbox"/> Falling objects <input type="checkbox"/> Electrical shock/arc flash <input type="checkbox"/> Bumping against fixed objects	<input type="checkbox"/> Hard hat <input type="checkbox"/> Bump hat <input type="checkbox"/> Fire retardant (FR) hard hat liner
<p><b>Foot/Leg</b></p> 		<input type="checkbox"/> Falling/Rolling objects <input type="checkbox"/> Punctures <input type="checkbox"/> Chemical <input type="checkbox"/> Extreme heat/cold <input type="checkbox"/> Electrical shock/arc flash	<input type="checkbox"/> Steel toe shoes <input type="checkbox"/> Slip-resistant closed toed shoes <input type="checkbox"/> Leggings <input type="checkbox"/> Shoe covers <input type="checkbox"/> Non-conductive safety shoes <input type="checkbox"/> Toe/Metatarsal guards <input type="checkbox"/> Combo. foot/shin guards

<p style="text-align: center;"><b>Body</b></p> 		<input type="checkbox"/> Chemical <input type="checkbox"/> Harmful mists, gases, vapors, dusts <input type="checkbox"/> Extreme heat/cold <input type="checkbox"/> Electrical shock/arc flash <input type="checkbox"/> Radiation - laser, ultraviolet, etc. <input type="checkbox"/> Biological – body fluid	<input type="checkbox"/> Heavy duty leather shoes <input type="checkbox"/> Apron <input type="checkbox"/> Coverall <input type="checkbox"/> Vest <input type="checkbox"/> Jacket <input type="checkbox"/> Lab coat <input type="checkbox"/> Full-body suit <input type="checkbox"/> Gown  Contact EHS prior to selecting electrical arc flash clothing.  Electrical Arc Flash Fire Retardant Clothing: <input type="checkbox"/> Category 0 <input type="checkbox"/> Category 1 <input type="checkbox"/> Category 2 <input type="checkbox"/> Category 3 <input type="checkbox"/> Category 4
<p><b>Notes:</b></p>			
<b>Certification of PPE Hazard Assessment</b>			
<p>I certify that the above assessment was performed to the best of my knowledge and ability, based on the hazards present on this date.</p>			
<p><b>Signature:</b></p>		<p><b>Date:</b></p>	