

# Personal Protective Equipment

University Facilities (UF)  
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Approved by: Todd Barnette

## Purpose

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To establish requirements for a Personal Protective Equipment ("PPE") program to include hazard assessments, associated training (use and maintenance) and to maintain an appropriate selection (for proper fit protection) and supply of PPE to ensure University Facilities (UF) employees are adequately protected from the workplace hazards they could be expected to encounter.

## Applicability

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Applies to the University Facilities Department.

## Definitions

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**Personal Protective Equipment ("PPE"):** Equipment and/or clothing worn to protect the eyes, face, head, hearing, lungs, body and extremities from injury or illness due to chemical exposure and physical hazards.

**OES:** Office of Occupational and Environmental Safety

**Job Hazard Assessment (JHA):** A written evaluation of the potential physical, chemical, or other hazards associated with work tasks to determine corresponding PPE requirements.

## Requirements

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### Obtaining PPE

PPE is available from various sources, including Maintenance Stores and contractually preferred suppliers/vendors. (Requirements for specialized PPE, such as body harness for fall protection, will be

covered in the specific department safety standard). In all cases, the designated PPE must be approved for the use based on the JHA, and must meet the latest ANSI, ASTM and/or OSHA standards at the time of purchase. PPE not available from Maintenance Stores can be purchased through the normal state procurement channels.

## Use of PPE

Only PPE that is approved for the purpose may be used in the UF Department. PPE which is likely to transmit communicable diseases should not be shared by individuals. Defective or damaged PPE shall not be used.

All PPE shall be maintained in a clean and reliable condition (clean, sanitary, replace worn or defective parts). Defective or damaged PPE shall not be used.

## Inspection of PPE

Before each use, each item of PPE must be visually inspected by the user to ensure that it is in good condition affording the protection for which it is intended.

## Job Hazard Assessment

The written operating procedures, or JHA, should identify the hazard or hazards that each item of PPE is protecting against.

The UF Safety Coordinator will periodically conduct Job Hazard Assessments to determine when PPE is required.

After the initial JHA; when/if there are changes in the type PPE being used on an existing task or a new task is started, then a procedure update is proper and a JHA should be made. During re-training, initial safety reviews, normal facility inspections, and daily area checks, the Departmental Supervisor will observe/monitor for proper use and adequacy of PPE.

## Safety Glasses with Side Shields or Goggles

Safety glasses with side shields or goggles shall be worn by employees when they are exposed to potential hazards such as flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, potentially injurious light radiation, working overhead, or other conditions as identified by a supervisor. Safety glasses must have impact resistant lenses/frames, permanently attached side shields, and meet ANSI standard Z87.1.

For those employees who require prescription safety glasses to perform their job duties safely, University Facilities will provide one pair of glasses, every two years, through the University's contract vendor. In order to meet eligibility requirements, the immediate supervisor must complete a PPE Hazard

Assessment. The supervisor will forward the assessment results and the request to University Facilities Workforce Safety & Development team who will then coordinate the purchase through the office of Occupational and Environmental Safety.

Other eligibility requirements include:

- The employee is responsible for obtaining a valid current prescription at their expense prior to requesting the purchase of prescription safety glasses.
- Only full-time employees are eligible for this benefit. All other personnel, including part-time/wage employees, must purchase prescription safety glasses at their expense. Goggles are available that fit over prescription glasses.
- The employee will be responsible for the purchase of the replacement prescription safety glasses if they are lost or damaged due to the employee's negligence.
- Employees who are requesting replacement of safety glasses due to a prescription change will be assessed on a case-by-case basis by departmental leadership.

## Goggles, Face Shield, and Protective Hoods

Whenever special chemical or dust hazards exist which require additional eye protection, goggles shall be worn.

Face shields can be worn as face protection from flying objects and minimal impact protection for the eyes. Face shields can only be worn as secondary impact protection for the eyes. Face shields can provide some face protection from chemicals but should be reviewed for adequacy due to the type and amount of chemical in use. Face shields can only be used as secondary protection against chemical hazards to the eyes.

Safety glasses with side shields must be worn under all face shields and goggles unless a deviation is granted.

## Welding Protection

Personnel engaged in welding-type operations where light radiation may cause injury to the eyes, shall use equipment with lenses that have a shade number appropriate for the work being performed.

For face protection, a welding helmet will be provided to shield the face from injurious light radiation and impact. Welding helmets are secondary protectors and shall be used only in conjunction with primary protection.

Welder's helpers shall also be provided with appropriate equipment for protection against injury to the eyes and face.

## Head Protection

UF employees must wear head protection (hard hat) if any of the following apply:

- Objects might fall from above and strike them on the head,
- They might bump their heads against fixed objects, such as exposed pipes or beams; or
- There is a possibility of accidental head contact with electrical hazards.
- Type I (top protection) Class E (electrical) head gear shall be required for electrical work based on the JHA. Hard hats constructed of aluminum alloy will not be issued and must meet or exceed applicable requirements as outlined in ANSI Z89.1
- Hard hats will be identified by having only the employee's name and Clemson University designation on it.
- No other stickers, art-work, or logos will be allowed.

## Hand Protection

The JHA shall determine if hand protection is required and the type of hand protection to be worn and the specific hazard it is protecting against (e.g. skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns, and harmful temperature extremes).

All personnel with duties that may involve physical activity or manual work with their hands shall be required to wear gloves, based on the JHA.

If gloves interfere with dexterity, techniques, severely hinder work, or create additional hazard, they may not be worn. The JHA will determine if alternate protection is available or protection is not needed.

## Protective Clothing (Whole Body)

When necessary, due to the potential hazard present for a job task, a JHA must be performed to determine the appropriate whole body protective clothing to be worn. This shall include chemical, electrical, heat and fire protection. Decontamination requirements shall be considered in the JHA.

Arc rated clothing for live electrical work will be addressed in the UF Electrical Work Standard.

## Hearing Protection

OES has established a workplace noise-monitoring program to identify all employees who may have exposure requiring the use of hearing protectors. Whenever feasible, the Time Weight Average ("TWA") noise levels will be reduced below 85 decibels (dBA) utilizing engineering and/or work practice controls.

UF shall make hearing protectors available to all employees exposed to an 8-hour TWA of 85 dBA or greater. Hearing protectors shall be replaced as necessary.

Hearing protectors shall be worn by any employee who is exposed to an 8-hour TWA of 85 dBA or greater and any employee who is exposed to a TWA greater than or equal to 85 dBA and has not received a baseline audiogram or whose annual audiogram has indicated a standard threshold shift. Periodic audiometric examinations will be conducted by the Clemson Occupational Health Nurse.

Employees shall be given the opportunity to select their hearing protectors from a variety of approved PPE. Ear plugs are the preferred choice.

Environmental Safety shall evaluate hearing protector attenuation for the specific noise environments in which the protector will be used. The method used must comply with the requirements in 29 CFR 1910.95.

## Foot Protection

Safety shoes shall be worn in all operation, maintenance, or construction areas. Office workers are not required to wear safety shoes in their work areas. However, if they proceed to an area that requires safety shoes, then safety shoes must be worn.

Safety shoe construction shall meet the standard identified in the JHA and conform to the requirements and specifications of ASTM F2412-05 and ANSI Z41. "ANSI" refers to American National Standards Institute.

Each UF employee required to wear protective footwear will be issued one (1) voucher for \$125 annually redeemable by several safety shoe vendors to be located on campus at predetermined date(s). The voucher may be applied to the purchase of one or two pair of safety shoes with the employee paying any dollar amount exceeding the voucher value at the time of purchase. Purchase amounts for less than the \$125 allowance will not result in a credit.

New employees whose JHA requires the use of protective footwear will be expected to purchase an appropriate pair of safety shoes prior to beginning work. The employee will be reimbursed up to \$125 after ASTM compliance has been verified and receipts collected by the Safety Coordinator. If the employee is hired within 3 months prior to the annual safety shoe vendor visit, a voucher will not be issued to the employee for another pair of safety shoes until the following year.

## Training

Employees shall receive initial training prior to being assigned work involving the use of PPE. The training will cover when PPE is necessary, what PPE is necessary as well as how to properly don, doff, adjust and wear PPE. The limitations of PPE will be discussed and how to properly care for, maintain, useful life and the proper disposal and decontamination where applicable, of the PPE will be included in this training.

Retraining is required when changes in workplace conditions or types of PPE to be used render previous training obsolete or when it is evident that the employee has not retained the understanding or skill required to use it properly.

In addition to the training, PPE will be a mandatory subject at an annual Safety Awareness meeting with appropriate documentation.

## Safety Coordinator

The Safety Coordinator is responsible for:

The implementation and interpretation of this procedure.

Maintaining a master list of approved PPE, and highlighting PPE during new employee orientation.

Conducting random inspections and keeping Departmental Supervision informed of infractions.

Providing Supervisor/Trainer training.

## Supervisors

Supervisors are responsible for the compliance of this procedure.

Supervisors are also responsible for conducting all employee training in the use of PPE and that documentation of this training is maintained.

Supervisors are responsible for administering progressive discipline in accordance with the SC State Personnel Manual and Clemson University guidelines when subordinate personnel repeatedly fail to utilize PPE as required.

## Employees

Identify potential hazards before work begins.

Wear appropriate PPE as required. If specified, applicable American National Standards Institute (ANSI) or American Society of Testing Material (ASTM) standards must be met. Provide proof of this specification to their supervisor.

Prescription safety glasses shall conform to the most current issue of ANSI Z87.1. Look for this stamp on the inside of the safety glass frame.

Safety toe footwear shall conform to the requirements and specifications of the ASTM F2412-05 standard.

Maintain PPE in good condition or replace when worn or defective.

Report any safety hazards to supervision as soon as you become aware of them.

Contract, student, and temporary employees are required to wear PPE as appropriate for their work.

Note: Failure to wear the appropriate PPE may result in disciplinary measures up to and including termination.

## Trainers/Supervisors

Are responsible for initial safety orientation of new employees prior to beginning their first work assignment.

Are responsible for initial training of new employees and retraining of any employee when changes in the workplace render previous training obsolete; or changes in the types of PPE to be used render previous training obsolete; or inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

## Department Directors

Department Directors are responsible for ensuring that proper PPE is part of the work planning (routine and non-routine tasks), unit emergency planning, and emergency response efforts.

Department Directors are also responsible for ensuring proper progressive discipline policies are followed and enforced when personnel repeatedly fail to wear PPE.

## Contractors

Contractors are responsible for supplying necessary PPE for their employees.

## Environmental Safety

Environmental Safety is responsible for establishing and conducting the workplace noise-monitoring program.

## Safety Action Committee

The Safety Action Committee is responsible for approving all UF PPE.

## Exceptions

Every effort will be made to provide an appropriate selection of the required PPE. It is recognized that this selection may not fit all individuals. These circumstances will be handled on an exception basis. If the PPE selection does not fit an employee, (for example, an employee has two different size feet) then an exception may be granted to obtain the correct size PPE.

PPE damaged through the normal course of employment in UF will be replaced at the discretion of the departmental Director

Departmental Directors will approve any exceptions as noted above.

## Related Documents

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Included but not limited to:

- ASTM F2412-05 Standard Test Methods for Foot Protection
- ANSI Z87.1 Protective Eyewear
- ANSI Z89.1 Industrial Head Protection
- OSHA, 29 CFR 1910.95, 1910.120, and 1910.132-138
- Department Safety Standard, Respiratory Protection
- Department Safety Standard, Hazard Communication/Safe Use of Chemicals
- Department Safety Standard, Fall Protection
- Department Safety Standard, Electrical