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EHS- 310, PERSONAL PROTECTIVE EQUIPMENT GUIDELINES

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1.0 Introduction

1.1 Purpose

The purpose of this Personal Protective Equipment (PPE) Guideline is to establish a minimum standard for Emory employees, students, visitors, contractors, and others who may encounter workplace hazards that require PPE as prescribed in the Occupational Safety and Health Administration's (OSHA's) PPE Standard - 29 CFR 1910.132. While some entities and/or divisions of Emory may have additional or more stringent guidelines, the guidelines outlined in this document shall serve as the minimum requirements for all.

1.2 Scope

This guideline applies to all Emory employees, including Emory Healthcare (EHC), faculty, staff, students, contractors, vendors, and visitors who perform tasks requiring the use of PPE for hazard mitigation.

1.3 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.

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.

Hazard assessment. The process of identifying the hazards associated with a specific task, prescribing personal protective equipment and other relevant protection measures which must be employed to reduce the risk from the 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.

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1.4 Responsibilities

Environmental Health and Safety Office (EHSO), EHC Infection Control and Prevention, and any applicable hospital/clinic Safety Management group

As the administrative department for the PPE guidelines, EHSO, EHC Infection Control and Prevention, and hospital/clinic Safety Management groups are responsible for the following:

- Development, implementation, and administration of the PPE program.
- Assisting with initial and periodic PPE hazard assessments as needed.
- Providing training and technical assistance on the proper selection, use, care, cleaning, and disposal of PPE.
- Documenting any training that they provide.
- Reviewing, updating, and evaluating overall effectiveness of the PPE guideline.

Directors, Supervisors, and Managers/Principle Investigators (PIs)

PIs, directors, supervisors, managers and their designees are responsible for the following:

- Implementation, management, and enforcement of the PPE guideline in their areas.
- Ensuring that appropriate hazard assessments have been completed and communicated to employees under their supervision.
- Ensuring that employees are trained in the proper selection, use, care, storage, and disposal of PPE.
- Ensuring that PPE in use by employees is adequate and properly maintained.
- Providing appropriate PPE and confirming proper use of PPE by employees, students, and visitors under their supervision.
- Notifying EHSO or the applicable hospital/clinic Safety Management group, as appropriate, when new hazards are introduced to an area.
- Taking appropriate disciplinary action in situations of violation of the PPE policy.
- Making contractors under their supervision aware of this PPE Guideline and ensuring compliance.

Employees

All persons subject to this guide are responsible for the following:

- Complying with the rules set forth by the PPE Guidelines.
- Demonstrating good practices of PPE use and understanding the limitations of PPE.
- Attending required training sessions.
- Appropriately caring for, maintaining, and disposing of PPE.
- Alerting management, the supervisor, EHSO or EHC Safety Management, as appropriate, of any concerns about the PPE in use.
- Properly using appropriate PPE. **NOTE:** Failure to appropriately use PPE when required may result in disciplinary action.

Contractors and Vendors

Contractors and vendors are responsible for the following:

- Complying with the rules set forth by the PPE Guidelines and all OSHA workplace safety regulations.

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- Ensuring that their employees have all required PPE and comply with the PPE Guidelines.
- Making safety programs available for review upon request by representatives of EHSO, EHC Safety Management, or other Emory representative, as appropriate.

1.5 Training Requirements

- EHSO is responsible for ensuring that PPE training is provided to all Emory University personnel who may encounter workplace hazards that require PPE.
- Department Leaders at EHC are responsible for ensuring that PPE training is provided to EHC employees who may encounter workplace hazards that require PPE.
- At a minimum, training shall be given upon initial assignment, when changes in the workplace or available PPE render previous training obsolete, when inadequacies in an employee's knowledge or behavior indicate a need for retraining, or as required by regulatory guidelines.
- The training includes the following information:
- The requirements of OSHA standard 29 CFR 1910.132;
 - When PPE is necessary;
 - What PPE is necessary;
 - Where PPE is stored;
 - How to properly don, doff, adjust, and wear PPE;
 - Limitations of PPE;
 - Useful life, proper care, maintenance, and disposal of PPE.

1.6 Recordkeeping Requirements

- Any entity or division that provides PPE training is responsible for maintaining records of their training.
- Training records for PPE training provided by EHSO are retained in the Emory Learning Management System (ELMS). Records include the names of the individuals trained, the type of training, the date of training, and the name of the trainer.
- Any entity or division that conducts workplace hazard assessments is responsible for maintaining records of the assessments.
- Workplace hazard assessments conducted by EHSO are retained in EHSO.
- Records of workplace hazard assessments are named to identify the document as a certification of a hazard assessment. Records include the identity of the workplace evaluated, the name of the person certifying that the evaluation has been performed, and the date(s) of the hazard assessment.

1.7 Program Evaluation

The written PPE Guideline shall be re-evaluated annually and revised if necessary.

2.0 Procedures

2.1 Hazard Assessment

- Hazard assessments are conducted in cooperation with the department supervisor, EHSO, EHC Infection Control and Prevention, and any applicable

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hospital/clinic Safety Management group, as appropriate, to identify the need for and proper selection of PPE. Refer to the Hazard Assessment Guidelines for additional guidance.

- The hazard assessment is designed to aid in the selection of appropriate PPE and to mitigate hazards that may arise during certain assigned tasks.
- Individual worker needs are taken into account in the hazard assessment.
- Workplace hazard assessments are documented and identified as a certification of hazard assessment.
- The Hazard Assessment Certification Form that is used by EHSO can be found on the PPE page of the EHSO website.
- Results from the hazard assessment are communicated to affected individuals.
- EHSO manages the hazard assessment program for Emory University.
- EHC Infection Control and any applicable hospital/clinic Safety Management groups manage the hazard assessment program for Emory Healthcare.

2.2 Equipment 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.

- PPE in use at Emory meets the following industry standards:
 - Eye and face protection must comply with ANSI Z87.1 (current)
 - Head protection must comply with ANSI Z89.1 (current)
 - Foot protection must comply with ANSI Z41 (current)
- 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. Glove selection guides are available from glove vendor web sites and the EHSO web site.
- Consult the PPE Selection Guidance Document, for assistance with selecting PPE.
- At Emory University, employees do not procure their own PPE. Required PPE is provided

2.3 Cleaning Maintenance

- Users are responsible for cleaning and maintaining PPE.
- PPE is inspected, cleaned, and maintained at regular intervals to ensure adequate protection and performance.
- PPE that cannot be decontaminated is disposed of as follows:
 - PPE that is contaminated with a hazardous chemical is disposed of in the appropriate chemical waste container.
 - PPE that is contaminated with radioactive material is disposed of in the EHSO-provided solid waste container designated for that radioisotope.
 - PPE that is contaminated with biological materials is disposed of in the appropriate biohazard waste container.
- Damaged or compromised PPE is not used. If it cannot be repaired, it must be disposed of in an appropriate manner according to the above guidelines.

3.0 Personal Protective Equipment

3.1 Eye and Face Protection



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- Protective eyewear is required in areas where potential eye hazards exist. These hazards include but are not limited to projectiles, chemicals, light radiation, and biological hazards.
- Safety glasses with side protection that meets the current ANSI Z87.1 standard are the minimal allowable eye protection when protecting the eye from flying fragments, particles, and objects. Safety glasses that meet the ANSI standard will have 'Z87' stamped on the frame of the glasses. **NOTE:** Most regular eyeglasses do not meet the ANSI standard and thus are not an acceptable form of eye protection.
- Persons whose vision requires the use of prescription (Rx) lenses must wear either protective devices fitted with prescription (Rx) lenses or protective devices designed to be worn over regular prescription (Rx) eyewear. **NOTE:** Contact lenses do not provide eye protection, but may be worn under proper eye protection.
- If there is potential for an eye splash, it is required to wear goggles or a face shield over safety glasses.
- Face shields must be worn in operations where the entire face needs protection. Face shields provide added protection against flying particles, metal sparks, and chemical and biological splash hazards.
- Face shields are not primary eye protection and can only be used in conjunction with safety glasses or goggles.
- Eye protection fitted with appropriate filter lenses is required when injurious light radiation exists, such as laser or ultraviolet (UV) light.
- University employees who need assistance in selecting proper laser eye protection should contact EHSO at (404) 727-5922.
- Healthcare employees who need assistance in selecting proper laser eye protection should consult with the Laser Safety Officer by contacting the applicable hospital/clinic Safety Management Office at their location.
- The following are examples of activities which require eye or face protection as applicable:
 - Working in a laboratory area when a potential eye hazard exists.
 - Working in animal rooms.
 - Working with hazardous chemicals such as flammables, corrosives, or other toxic compounds.
 - Working in areas where projectile hazards are present. Examples include vacuum or pressure operations, using hand/power tools, chemical reactions, centrifuges, etc.
 - Working in areas where the beams of class 3B or 4 lasers are not enclosed.
 - Working in areas where welding, torch soldering, cutting, and brazing operations are performed.
 - Performing work in areas, such as air handling units, which contain a UV light source.
 - Working in areas that have been designated as "Eye Protection Required".

3.2 Hand Protection

- Hand protection is required to be worn in areas where potential hand hazards

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exist. These hazards include but are not limited to chemical agents, biological agents, radioisotopes, objects that can cause lacerations or abrasions, and extreme temperatures.

- Select appropriate gloves based on performance characteristics, conditions of use, and duration of use.
- Glove materials must be appropriate for protection from the identified hazard.
- Guidance for glove selection is available on the EHSO website in the PPE Selection Guidance Document and from the glove vendor's website.
- Replace gloves when damaged or contaminated.
- Employees must develop practices that reduce the potential for contamination during glove removal.

3.3 Head Protection

- Employees are required to use head protection when there is a risk of impact hazards from falling or fixed objects, penetration from impact hazards, or exposure to live electrical conductors.
- Head protection must meet the current ANSI/ISEA Z89.1 standards.

3.4 Foot Protection

- Open toe shoes (e.g. sandals) are prohibited while working in or entering a laboratory, animal room, or other hazardous area.
- Safety shoes or boots must meet the current ASTM F2413-05 or ANSI Z41 standard and are required when:
- Carrying or handling materials, objects, parts or heavy tools, which if dropped, could injure the feet.
- Performing work where materials or equipment could potentially roll over the feet.
- Safety shoes or boots with puncture-resistant soles are required when puncture hazards are present.
- Rubber boots are required if the feet will contact chemical or biological hazards or a wet working environment.
- Safety shoes with special non-conductive and insulating soles are required when electrical hazards are present.

3.5 Protective Clothing

- Protective clothing is worn to prevent injury from biological hazards, hazardous chemicals, electrical hazards, radioactive material, heat, sparks, impact, and cut hazards.
- Protective clothing types include but are not limited to coveralls, aprons, flame-resistant clothing, and laboratory coats.
- Protective clothing cannot be worn outside of the work area (i.e., lab coats are prohibited in areas such as the library, cafeteria, etc.)
- Protective clothing that is chemically or biologically contaminated cannot be worn in other work areas, including other laboratories or animal areas.
- Lab coats are required when working in a laboratory with hazardous materials.
- Protective clothing must be fastened, zipped, or tied, and the sleeves must be down.

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4.0 References

- OSHA Personal Protective Equipment - 29 CFR 1910.132-138
- American National Standard for Occupational and Educational Personal Eye and Face Protection Devices ANSI Z87.1 (current)
- Standard Specification for Performance Requirements for Foot Protection ASTM F2413-05 (current)
- American National Standard for Industrial Head Protection ANSI/ISEA Z89.1 (current)
- Emory University Chemical Hygiene Plan
- Emory University Hazard Communication Program
- Emory University Biosafety Manual
- Emory University Bloodborne Pathogens Exposure Control Plan
- Emory University Radiation Safety Manual
- Emory University Hospital Hazard Communication Program
- Emory Healthcare Infection Control Policies and Procedures
- Emory Hospital Environmental Care Manual
- TEC Environmental Care Manual
- TEC Hazard Communication Program

5.0 List of Associated Documents

PPE Selection Guidance Document