

1. Purpose: Virginia Commonwealth University (VCU) Office of Safety and Risk Management (SRM) has developed the Personal Protective Equipment (PPE) Program in order to outline the equipment and practices that protect VCU and contract employees from any hazards that exist in the workplace that cannot be mitigated by engineering and administrative controls. The program was created in accordance with the Occupational Safety and Health Administration (OSHA) standards contained in 29 CFR 1910 Subpart I.
2. Scope / Applicability: This program shall apply to all faculty, staff, students, contractors, volunteers, and visitors performing work or entering an area requiring PPE on all VCU owned/leased properties. Other more specific requirements for use of PPE are outlined in the following:
 - VCU Biosafety Manual
 - VCU Electrical Safety Program
 - VCU Fall Protection Program
 - VCU Hand and Power Tool Safety Program
 - VCU Hearing Conservation Program
 - VCU Laboratory Chemical Hygiene Plans (CHP)
 - VCU Radiation Safety Guide
 - VCU Respiratory Protection Program
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4. Definitions:
 - Eye/Face Protection: Goggles, face shields, and glasses designed to prevent injury to the eyes/face from flying debris or hazardous substances/energy.

- Foot Protection: Protective footwear designed to prevent injury to feet/legs from heavy/sharp objects or hazardous substances/energy.
 - Hand Protection: Protective gloves designed to prevent injury to hands from hazardous objects, substances, or energy.
 - Hazard Assessment: The process utilized to identify physical and health hazards that may be associated with a particular work process or location and to determine what PPE is appropriate.
 - Head Protection: Protective headwear designed to prevent injury to head for falling or low hanging objects or hazardous substances/energy.
 - Hearing Protection: Protective equipment designed to prevent hearing loss during exposure to high noise levels.
 - Personal Protective Equipment (PPE): Clothing and equipment designed to be worn to prevent injury in the workplace.
 - Respiratory Protection: Protective equipment designed to prevent injury to personnel from inhalation hazards such as vapors, mists, particulates, and gases.
5. Background: Hazards exist in every workplace. When these risks can't be completely controlled through engineering and administrative methods, appropriate PPE must be provided by the employer and used correctly by employees to prevent injury, illness and/or death.
6. Responsibilities:
- a. Safety and Risk Management (SRM) is responsible for:
 - developing and updating basic training and standard guidelines
 - maintaining basic PPE training records along with department supervisors
 - validating program implementation through inspections
 - assisting departments and supervisors in performing hazard assessments for the selection of appropriate PPE
 - providing Respiratory Hazard Assessments (RHA) for all VCU employees and students who have not had potential exposure risks evaluated when using hazardous materials
 - assisting supervisors, principal investigators and students with respirator medical evaluation submissions to assess their ability to

use respiratory protection; and coordinate the selection of appropriate respiratory protection and fit testing

b. Departments/supervisors with personnel involved in tasks or accessing locations that involve hazards covered in this program are responsible for:

- performing hazard assessment to determine if/what PPE is required
- maintaining basic PPE training records along with SRM
- selecting and acquiring appropriate PPE
- ensuring the proper use/maintenance of required PPE is being performed
- ensuring damaged and defective PPE is not being used
- providing department-specific PPE training and maintaining training records, when applicable

c. Faculty, staff, students, contractors, volunteers and visitors involved in tasks or accessing locations that involve hazards covered by this program are responsible for:

- correctly utilizing required PPE as identified by department or supervisor
- maintaining and storing PPE in a clean and sanitary condition
- inspecting PPE for defects before performing tasks or accessing locations that require it and reporting defects to supervisor
- attending basic and/or department-specific PPE training
- complying with applicable regulatory standards associated with PPE
- notifying their supervisor of any unsafe condition that may require additional PPE

7. Requirements: Each supervisor has the responsibility to protect their employees from harm. Hazards shall be assessed and eliminated if possible, prior to the start of any work where hazards have been identified. If hazards cannot be eliminated through removal, then the source of the hazard should be substituted with something that does not produce the hazard. Engineering controls, such as guards and protective equipment should be utilized to ensure the safety of employees, if elimination and substitution are not practical. If no engineering solution can be found to mitigate the risk, work practices shall be modified to minimize any danger. PPE is the last line of defense and shall only be used when all other controls fail to eliminate the hazard.

- a. Hazard assessments shall be conducted prior to work being performed where a potential hazard has been identified using the Appendix A. The supervisor shall:
 - 1) perform a walkthrough survey of the area to identify potential sources of injury and/or illness
 - 2) organize and analyze collected data to determine what, if any, PPE is required
 - 3) select PPE that exceeds minimum level of protection against identified hazards, if possible
 - 4) periodically reassess workplace for any changes in conditions, equipment and/or procedures that could affect occupational hazards
 - 5) document hazard assessments with:
 - identification of job title and workplace evaluated
 - name of person conducting evaluation
 - date of assessment
 - list of identified hazards and PPE required

- b. Eye/Face protection shall:
 - 1) be utilized when any of the following hazard potentials exist to the eyes or face:
 - flying particles
 - molten metal
 - liquid chemicals
 - corrosive liquids
 - chemical gases and vapors
 - infectious materials
 - potentially injurious light radiation
 - 2) be worn, maintained and stored in accordance with manufacturers' instructions
 - 3) either cover or incorporate prescription lenses, if required, as to not negate effectiveness of the PPE
 - 4) be appropriate for the hazard
 - 5) comply with consensus standard ANSI Z87.1-2010

- c. Head protection shall:

- 1) be utilized when any of the following hazard potentials exist to the head:
 - falling objects
 - low hanging objects
 - head contact with electrical hazards

- 2) be worn, maintained and stored in accordance with manufacturers' instructions
- 3) be appropriate for the hazard
- 4) comply with consensus standard ANSI Z89.1-2009

d. Foot protection shall:

- 1) be utilized when any of the following hazard potentials exist to the feet or legs:
 - compression from heavy falling/rolling objects
 - punctures from sharp objects
 - molten metal
 - hot, wet or slippery walking surfaces
 - electrical hazards
- 2) be worn, maintained and stored in accordance with manufacturers' instructions
- 3) be appropriate for the hazard
- 4) comply with consensus standards ASTM F-2412-2005 and ASTM F-2413-2005

e. Hand protection shall:

- 1) be utilized when any of the following hazard potentials exist to the hands:
 - skin absorption of harmful substances
 - chemical or thermal burns
 - electrical hazards
 - physical injury such as cuts, bruises, abrasions, punctures, fractures or amputations
- 2) be worn, maintained and stored in accordance with manufacturers' instructions
- 3) be appropriate for the hazard

f. Body protection shall:

1) be utilized when any of the following hazard potentials exist to the body:

- temperature extremes
- molten metal/hot liquid
- impacts from tools, machinery or materials
- hazardous chemical/biological substances

2) be worn, maintained and stored in accordance with manufacturers' instructions

3) be appropriate for the hazard

g. Hearing protection shall:

1) be utilized when noise exposure exceeds 8-hour time-weighted average sound level of 90 decibels or greater

2) be worn, maintained and stored in accordance with manufacturers' instructions

3) be appropriate for the hazard

4) comply with the VCU Hearing Protection Program

h. Respiratory Protection

- If an inhalation hazard exists that cannot be completely eliminated through engineering controls, respiratory protection shall be coordinated through SRM's Respiratory Program Administrator before any selection or use. Respirator use requires evaluation of a worker's ability to use a respirator without affecting the health of the user, as well as fit testing and training.

i. Violations

1) Employees performing or allowing unauthorized/unsafe work practices contrary to this program not only put themselves or others at risk of injury or death, but may cause Worker Compensation benefits to be denied if an incident should occur. Violators would also be subject of disciplinary action up to and including termination.

2) If an issue is found that is immediately dangerous to life and health, as the AHJ, SRM staff responds as follows:

- direct the individuals in the area to stop the unsafe operation immediately
- notify the supervisor or principal investigator and Assistant Vice President of SRM (the Assistant Vice President of SRM shall notify the appropriate university officials of the risk to the university community)
- send an electronic notification the day of the occurrence to the supervisor or principal investigator, with a copy to the chair or director of the unit, with the noncompliance finding(s) and with a request for immediate corrective actions
- work with the supervisor or principal investigator to develop a reasonable corrective plan that ensures the safety of the university community and satisfies all applicable requirements
- conduct a follow-up inspection the next day or before the operation resumes verifying corrective actions are implemented
- send an electronic notification to the dean or vice president of the area if the unsafe situation is not corrected
- refer the case to the appropriate cabinet level member for further action

8. Training and Recordkeeping

- a. Training requirements - All employees who utilize PPE shall be trained to understand the following:
 - 1) When PPE is necessary
 - 2) What PPE is necessary
 - 3) How to properly don, doff, adjust and wear PPE
 - 4) The limitations of the PPE
 - 5) The proper care, maintenance, useful life and proper disposal of the PPE
- b. Employees must be able to demonstrate and understanding of the training and the ability to use the PPE properly before being allowed to perform work requiring the use of PPE. Certain types of PPE (e.g. respiratory, electrical, biological and radiation) may require department-specific training.
- c. Retraining requirements – Circumstances where retraining is required include, but not limited to, situations where:
 - 1) Changes in workplace render previous training obsolete
 - 2) Changes in the types of PPE to be used render previous training obsolete



3) Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill

d. Recordkeeping: Records of PPE hazard assessments and department-specific training (when applicable) shall be maintained by the department. Basic training records will be maintained by SRM.

9. References:

- OSHA Regulations 29 CFR 1910.95 and Subpart I
- VCU Biosafety Manual
- VCU Electrical Safety Program
- VCU Fall Protection Program
- VCU Hand and Power Tool Safety Program
- VCU Hearing Conservation Program
- VCU Laboratory Chemical Hygiene Plans (CHP)
- VCU Radiation Safety Guide
- VCU Respiratory Protection Program
- ANSI Z87.1-2010 (American National Standard for Occupational and Educational Eye and Face Protection)
- ANSI Z89.1-2009 (American National Standard for Industrial Head Protection)
- ASTM F-2412-2005 (American National Standard Test Methods for Foot Protection)
- ASTM F-2413-2005 (American National Standard Specification for Performance Requirements for Foot Protection)

10. Appendices:

- a. Appendix – Personal Protective Equipment Hazard Analysis

