Personal Protective Equipment (PPE) Policy

GENERAL
The UNCW Environmental Health & Safety Department (EH&S) is authorized by UNCW Policy 05.600 to develop and manage comprehensive environmental, health and safety programs. Additionally, they are tasked to identify and address regulatory requirements. In that spirit, this Personal Protective Equipment (PPE) Policy has been developed to ensure the proper selection, use and care of PPE through work area hazard assessments and appropriate employee training by ensuring that PPE is provided and used when appropriate. This policy is intended to meet the Occupational Safety and Health Requirements for General Industry outlined in 29 CFR 1910.132.

SCOPE
This policy applies to all university employees regardless of status or type of employment. It may be used as minimum guidelines for contractors and/or vendors that are expected to maintain their own safety program.

APPLICATION
This written policy outlines responsibilities, training and inspections with regard to the use of Personal Protective Equipment (PPE). The policy outlines types of Personal Protective Equipment.

RESPONSIBILITIES
Each department is responsible for:

1. The Supervisor shall identify the appropriate PPE based on the hazards of the task/work area. See provided link below for PPE assessment form: http://www.uncw.edu/ehs/documents/PPE_JHA_Choice.pdf
4. Assure appropriate equipment is available
5. Enforcing the proper use of PPE
6. Maintaining PPE in a clean and reliable condition (clean, sanitary, replace worn or defective parts)
7. Training employees (Departments Supervisors shall be responsible for training record keeping and record retention.)
TRAINING
The EH&S Department shall provide general training every three (3) years and the department shall provide department-specific training as needed so employees understand the purpose and function of the program (knowledge, skills, application, use, maintenance) and shall include the following:

1. When PPE is needed
2. What PPE is needed
3. How to properly don, doff, adjust, wear and remove the PPE
4. Useful life and limitations of the PPE
5. Proper care, storage and disposal of the PPE

Employee Retraining
1. There shall be retraining with any change in job assignments, change in machines, equipment or process that presents a new hazard or a change in energy control procedures
2. Retrain when inspection reveals a need or whenever the employer sees a need
3. Retraining shall be completed no less than every three (3) years

Retraining shall reestablish proficiency and introduce new or revised control methods

INSPECTION
Employees shall inspect PPE before each use to ensure it is in proper working order.

TYPES OF PERSONAL PROTECTIVE EQUIPMENT

Eye and Face Protection
Faculty, staff, students, contractors and visitors shall wear the appropriate eye and face protection when involved in activities where there is the potential for eye and face injury from:

- Handling of hot solids, liquids or molten metals
- Flying particles from chiseling, milling, sawing, turning, shaping, cutting, etc.
- Heat treatment, tempering or kiln firing of any metal or other materials
- Intense light radiation from gas or electric arc welding, glassblowing, torch brazing, oxygen cutting, laser use, etc.
- Repair or servicing of any vehicle
- Handling of chemicals and gases

Eye protection choices include the following:

Safety Glasses
Ordinary prescription glasses do not provide adequate protection. Eye protection must conform to the American National Standards Institute (ANSI), Standard Z87.1-1989. Look for this stamp on the inside.
of the safety glass frame. Prescription safety glasses are recommended for employees who must routinely wear safety glasses in lieu of fitting safety glasses over their personal glasses. All safety glasses should have side shields. Whenever protection against splashing is a concern, "Chemical Splash Goggles" must be worn.

**Goggles**

Goggles are intended for use when protection is needed against chemicals or particles. Impact protection goggles which contain perforations on the sides of goggle are not to be used for chemical splash protection, therefore are not recommended. Splash goggles which contain shielded vents at the top of the goggle are appropriate for chemical splash protection and also provide limited eye impact protection. Goggles only protect the eyes and offer no protection for the face and neck.

**Face Shields**

Full-face shields provide the face and throat and partial protection from flying particles and liquid splash. For maximum protection against chemical splash, a full face shield should be used in combination with chemical splash goggles. Face shields are appropriate as secondary protection when implosion (e.g., vacuum applications) or explosion hazards are present. Face shields which are contoured to protect the sides of the neck as well as frontal protection are preferred.

**Eye Protection for Intense Light Sources**

(welding, glassblowing, gas welding, oxygen cutting, torch brazing, laser use, etc.)

The radiation produced by welding covers a broad range of the spectrum of light. Exposure to ultraviolet light (UV-B) from welding operations can cause "welders flash", a painful inflammmable of the outer layer of the cornea. Arc welding or arc cutting operations, including submerged arc welding, require the use of welding helmets with an appropriate filter lens. Goggles with filter plates or tinted glass are available for glassblowing and other operations where intense light sources are encountered, including but not limited to, gas welding or oxygen cutting operations. Spectacles with suitable filter lenses may be appropriate for light gas welding operations, torch brazing or inspection. Contact the EH&S Department at 962-3057 for assistance in selecting the appropriate shade.

**Hand Protection**

Employees shall use hand protection when exposed to hazards including:

- Skin absorption of harmful substances
- Lacerations
- Severe cuts
- Severe abrasions
- Punctures
- Chemical burns
- Thermal burns
- Harmful temperature extremes

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Wear proper hand protection whenever the potential for contact with chemicals, sharp objects or very hot or cold materials exists. Select gloves based on the properties of the material in use, the degree of protection needed and the nature of the work (direct contact necessary, dexterity needed, etc. Leather gloves may be used for protection against sharp edged objects, such as when picking up broken glassware or inserting glass tubes into stoppers. When working at temperature extremes, use insulated gloves. Materials such as Nomex and Kevlar may be used briefly up to 1000 F. Do not use gloves containing asbestos. Asbestos is regulated as a carcinogen under OSHA. When considering chemical gloves, note that glove materials will be permeated (pass through) by chemicals. The permeation rate varies depending on the chemical, glove material and thickness. Double gloving is recommended when handling highly toxic or carcinogenic materials. Before each use, inspect the gloves for discoloration, punctures and tears. Before removal, wash gloves if the glove material is impermeable to water. Observe any changes in glove color and texture, including hardening or softening, which may be indications of glove degradation.

**Body Protection**

Employees working around hazard materials or machinery shall not wear loose clothing (e.g. saris, dangling neckties, necklaces) or unrestrained long hair. Loose clothing, jewelry and unrestrained long hair can become ensnared in moving parts of machinery or contact chemicals. Finger rings can damage gloves and trap chemicals against the skin.

Cotton lab coats (preferable to rayon or polyester coats) should be worn to protect your clothing from becoming soiled and to provide limited protection against minor splashes of chemicals and radioactive materials. Assure that hazardous chemicals, radioactive materials or toxic dusts are not carried home with you on your street clothes by using lab coats, disposable protective clothing or work clothes which remain at the workplace. Tyvek coveralls can be used over street clothes for protection against particles and low hazard liquids, but do not provide complete protection against liquids. Lab coats will also not resist liquid penetration and if splashed with chemicals, should be removed immediately.

Vinyl or rubber aprons and sleeves should be used when dispensing corrosive liquids (e.g. hydrofluoric acid, phenol, etc). Where metal organic liquids or other materials, which may self ignite on contact with air, are used Nomex lab coats are recommended along with face shields. Where contact with hazardous materials with your protective clothing is likely, such as during spill cleanup or pesticide application, polyethylene-coated Tyvek or similar clothing should be used to provide additional protection. The limitations of the protective clothing must always be understood, particularly in situations where contact with the material is likely.

Employees should know the appropriate techniques for removing protective apparel, especially any that has become contaminated. Special procedures may need to be followed for cleaning and/or discarding contaminated apparel. Chemical spills on leather clothing accessories (watchbands, shoes, belts and such) can be especially hazardous because many chemicals can be absorbed in the leather and then held close to the skin for long periods. Such items must be removed promptly and typically be discarded to prevent the possibility of chemical burns.

**Foot Protection**

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Safety toe footwear shall conform to the requirements and specifications of ASTM-F 2413 March 2005, "American Standard Test Method"

Wear proper shoes, not sandals or open toed shoes, in work areas where chemicals are used or stored. Perforated shoes, sandals or cloth sneakers should not be worn in areas where mechanical work is being done.

Safety shoes are required for protection against injury from heavy falling objects (handling of objects weighing more than fifteen pounds which, if dropped, would likely result in a foot injury), against crushing by rolling objects (warehouse, loading docks, etc.), and against laceration or penetration by sharp objects.

The state personal protective equipment policy stipulates that employees who are required to wear safety shoes will be eligible for departmental reimbursement up to $100.

Pullovers, worn over regular shoes, are available for protection against certain chemicals. These boots are made of a stretchable rubber compound and are well suited for cleaning up chemical spills.

**Respiratory Protection**

See the Respiratory Protection section of this Health and Safety manual for more information. Respirators may not be used without prior approval from a Physician or Licensed Health Care Provider. This assures that respirators are properly selected, users are properly trained and the appropriate medical exams are conducted according to OSHA regulations. Contact EH&S for further assistance at 962-3057.

**Hearing Protection**

See the Hearing Protection Program. Exposure to noise in excess of OSHA regulated levels requires participation in a hearing conservation program. This program includes training and audiometric exams, among other requirements. Contact EH&S at 962-3057 if you feel your noise exposure may be excessive.

**Head Protection**

Helmets designed to protect the head from impact and penetration from falling/flying objects and from limited electric shock and burn shall meet the requirements and specifications established in ANSI Z89.1-1986, "Requirements for Industrial Head Protection". For more information contact EH&S at 962-3057.

**Electrical Protection**

Specific design and performance, use and care requirements apply to protective equipment used for isolation against electrical hazards. Persons selecting for purchase, maintaining and using such equipment (insulating blankets, matting, covers, line hose, gloves, and sleeves made of rubber) must be familiar with these requirements (refer to 29 CFR 1910.137). For more information contact EH&S at 910-962-3057.

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