Personal Protective Equipment Program

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INTRODUCTION

Forward

In 1970, the United States Congress established the right of workers to "safe and healthful working conditions" through the Occupational Safety and Health Act. This act created the Occupational Safety and Health Administration (OSHA). House Bill 308 incorporates by reference all federal OSHA standards found in the Code of Federal Regulations (CFR), Title 29 Parts 1910, 1926 and 1928 as Ohio Public Employment Risk Reduction Standards. All adopted Ohio Public Employment Risk Reduction Standards are found in Chapter 4167 of the Ohio Revised Code and the Ohio Administrative Code.

This program has been established by Bowling Green State University to comply with the majority of OSHA's Personal Protective Equipment (PPE) standard, 29 CFR 1910 Subpart I, excluding some sections that are covered by other written programs as specified.

Scope and Application

In addressing workplace hazards, there is a hierarchy of controls that must be reviewed and considered for implementation before PPE is issued and used. These controls include elimination, substitution, engineering, and administrative. A Job Hazard Analysis (JHA) will be the main process utilized to accomplish this review. This program covers basic eye, face, head, foot, hand, and bodily protection. In contrast, this program does not cover the following PPE:

1. Laboratories: See BGSU's Chemical Hygiene Plan
2. Respiratory: See BGSU's Respiratory Protection Program
3. Hearing: See BGSU's Hearing Conservation Program
4. Falls: See BGSU's Fall Protection Program

Responsibilities

Sr. Industrial Hygienist is responsible for:

- Coordinating and periodically reviewing this program;
- Assisting departments with JHAs and selection of PPE as needed;
- Considering and assisting in the implementation of appropriate hazard controls ensuring PPE is considered a last resort;
- Maintaining copies of all required documentation;
- Providing training to affected personnel; and
- Reviewing and analyzing injury/illness data to determine potential gaps in employee protection from workplace hazards.

Supervisors/Managers are responsible for:

- Supplying PPE to employees at no cost where required;
- Completing online PPE training offered by Environmental Health and Safety (EHS);

- Ensuring all direct reporting staff complete online PPE training offered by EHS;
- Performing initial JHAs and reviewing them annually for accuracy;
- Fitting employees with PPE, issuing PPE, and providing the manufacturer's instructions for use, care, limitations, warnings, proper donning and doffing of the product, etc.;
- Adhering to all requirements of this program;
- Enforcing compliance of direct reporting staff with all requirements of this program; and
- Directing staff to the online location of or providing them with a hard copy of this program upon request.

Employees are responsible for:

- Completing online PPE training offered by EHS;
- Properly wearing, cleaning, maintaining, donning and doffing of all assigned PPE according to the manufacturer's instructions;
- Inspecting all PPE before each use to ensure a safe use condition;
- Returning all damaged PPE to their immediate supervisor to receive a replacement;
- Using only PPE provided by the university;
- Adhering to all requirements of this program; and
- Informing immediate supervisor of any safety and health concerns where controls or stronger controls need to be implemented to protect employee safety and health.

Program Enforcement

A violation of a university employee's responsibility under this program must be reported to the employee's immediate supervisor for appropriate action. All contractor violations should be reported to the BGSU Project Manager for appropriate action.

JOB HAZARD ANALYSES

To assess the need for PPE, the following steps must be taken:

- Elimination, substitution, engineering and administrative controls must be considered and implemented first to abate any hazards in the workplace. If these controls are not feasible, available, etc., appropriate PPE can be selected to control the hazard(s).

- Immediate supervisor shall conduct a hazard assessment for these tasks using a JHA form (see Appendix A). Any new JHA forms or changes to existing JHA forms must be communicated to EHS.

- It is the responsibility of each immediate supervisor to periodically reassess the workplace, and the tasks performed by their staff to see if the current controls are effective or if additional ones need to be implemented. If job hazards or PPE have changed, update all applicable JHA forms and communicate the changes to EHS. Contact EHS for assistance if needed.

Supervisors are also responsible for periodically assessing adherence to all facets of this program. Elements to consider in this type of assessment include:

- ✓ Effectiveness of this program
- ✓ Injury and illness history of reporting staff
- ✓ Levels and types of exposure
- ✓ Adequacy of PPE selection, paying close attention to selection combinations
- ✓ Number of hours workers are required to wear each type of PPE or combination selections
- ✓ Adequacy of training/fitting of PPE
- ✓ The adequacy of program records
- ✓ Coordination with other safety and health programs
- ✓ New equipment and/or processes

SELECTION GUIDELINES

After completion of a JHA or update of an existing one, EHS will assist where needed with the following when it comes to PPE selection:

- Review of available controls to ensure that PPE is the only option in protecting employee health and safety and documenting this assessment.

- Selection of PPE based on hazards present using the PPE Selection Guidelines found in Appendix B of this program or something comparable.

- Comfort and fit of selected PPE. Departments will provide users with proper, well-fitted protective devices to ensure adequate protection. Defective or damaged PPE shall not be used.

TRAINING

Initial Training

Provider: EHS

The following information will be covered:

- When PPE is necessary and the importance of it;
- What PPE is necessary;
- How to properly don, doff, wear, and adjust PPE;
- The proper care, maintenance, useful life and disposal of the PPE;
- Limitations of PPE;
- An overview of OSHA's PPE standard; and
- An overview of this program and where it is located.

NOTE: This information is basic in nature and covers categories or groups of common PPE. At the department level, more specifics are required to be provided and is explained below.

Provider: Department Level Supervisor (or designee)

The direct supervisor or designee is required to cover specific brands, types, etc. used by the department. This information should include:

- What PPE is necessary for each task;
- Location of PPE;
- How to properly don, doff, wear, and adjust PPE;
- Limitations of the assigned PPE and;
- The proper care, maintenance, useful life, and disposal of the assigned PPE.

Retraining

Each affected employee shall demonstrate an understanding of the training and the ability to use PPE properly before being allowed to perform work requiring the use of PPE. When the supervisor has reason to believe that any affected employee, who has already been trained, does not have a clear understanding of this information, the supervisor shall ensure the employee is retrained. Changes in the workplace or changes in the types of PPE to be used that render previous training obsolete requires staff to be retrained in these changes. Retraining shall be documented and contain the name of each employee trained, the date, and the subject of the training and/or training details. Refresher training is provided by EHS every three years.

CLEANING AND MAINTENANCE

It is important that all PPE be kept clean and properly maintained by the employee assigned to the equipment. Cleaning is particularly important for eye and face protection. Dirty or fogged lenses can impair vision. PPE is to be inspected, cleaned, and maintained by employees at regular intervals and as stated in the manufacturer's instructions.

If the PPE needs repair or replacement, it is the responsibility of the employee to bring it to the immediate attention of his/her supervisor. Do not use PPE if it needs repaired, is expired, or if it can no longer perform its intended function. This may result in not completing a task until it can be done safely by wearing all required PPE. Pay close attention to the manufacturer's replacement recommendations. For example, hard hat shells may expire after 2-5 years, and the inner suspensions every year depending on the manufacturer.

Contaminated PPE, which cannot be decontaminated, must be disposed of in a manner that protects employees from exposure to the hazard. Inquire with immediate supervisors on departmental disposal procedures. If disposal questions still arise, please contact EHS at 419-372-2171.

Document Owner: Environmental Health and Safety
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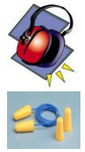
APPENDIX A - HAZARD ASSESSMENT

Job Hazard Analysis Form

ITEMS:																	
JOBS:	Gloves	Saw Chaps	Head Face/Hear	Safety Glasses	Respirator	Boots	Face Shield	Chemical Gloves	Chemical Goggles	Coveralls Or Apron	Hearing Protection	Safety Vest	Safety Belt- Harness	Toe Caps	Welding Jacket	Welding Helmet/ Goggles	Hard Hat
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APPENDIX B – PPE SELECTION GUIDLEINES

Selection Chart Guidelines for Eye and Face Protection

The following chart provides general guidance for the proper selection of eye and face protection to protect against hazards associated with the listed hazard "source" operations.

Activity	Hazard Assessment	Protection
IMPACT – Chipping, grinding machining, masonry work, riveting, and sanding.	Flying fragments, objects, large chips, particles, sand, dirt, etc.	Spectacles with side protection, goggles. For severe exposure, use face shield.
HEAT – Furnace operations, pouring, casting, hot dipping, gas cutting, and welding.	Hot sparks	Goggles, spectacles with side protection. For severe exposure use face shield.
	Splash from molten metals	Face shields worn over goggles.
	High temperature exposure	Screen face shields, reflective face shields over goggles or spectacles with side protection.
CHEMICALS – Acid and chemical handling, degreasing, plating.	Splash	Indirect vented goggles, eyecup and cover types. For severe exposure, use face shield.
	Irritating mists	Special-purpose goggles, cover goggle with no ventilation.
DUST – Woodworking, buffing, general dusty conditions.	Nuisance dust	Goggles, eyecup and cover types.
OPTICAL RADIATION –		
Welding: Electric arc, and viewing electric arc furnaces and boilers	Optical radiation	Welding helmet or welding shield. Typical filter lens shade: 10-14.
Welding: Gas, and viewing electric arc furnaces and boilers	Optical radiation	Welding goggles, welding helmet, or welding face shield over spectacles with side protection, goggles, or respirator.

		Typical filter lens shade: 4-8.
Activity	**Hazard Assessment**	**Protection**
Torch Brazing	Optical radiation	Welding goggles, welding helmet, or welding face shield. Typical filter lens shade: 3-4.
Torch Soldering	Optical radiation	Spectacles with side protection or welding face shield over spectacles with side protection. Typical filter lens shade: 1.5-3.
Glare	Poor vision	Spectacles (with or without side protection) or face shield over spectacles or goggles. Shaded or special purpose lenses, as suitable.

Notes to Eye and Face Protection Selection Chart

1. Caution should be exercised in the use of metal frame protective devices in electrical hazard areas. Metal frame protective devices could potentially cause electrical shock and electrical burns through contact with, or thermal burns from exposure to the hazards of electrical energy, which include radiation from accidental arcs.
2. Operations involving heat may also involve optical radiation. (See electric arc, gas, and glare under Optical Radiation below.) Protection from both hazards shall be provided. Face shields shall only be worn over spectacles or goggles.
3. Welding helmets or hand shields shall be used only over spectacles or goggles.
4. Filter lenses shall meet the requirements for shade designations in Table 1.
5. Face shields and welding helmets shall only be worn over spectacles or goggles.
6. Refer to Section 6.2.4.1 for Special Purpose Lenses.
7. Filter lenses shall meet the requirements for shade designations in Table 1.

Selection Guidelines for Head Protection (ANSI standard, Z89.1)

All head protection (hard hats) is designed to provide protection from impact and penetration hazards caused by falling objects. Head protection is also available for protection from electric shock and burn at different voltage levels. When selecting head protection, ensure that it is rated appropriately for the hazards that are present.

Where falling object hazards are present, hard hats must be worn. Some examples include working below other workers who are using tools and materials which could fall; working around or under conveyor belts which are carrying parts or materials; working below machinery or processes which might cause material or objects to fall; and working on exposed energized conductors.

Some examples of occupations for which head protection should be routinely considered are carpenters, electricians, linemen, mechanics and repairers, plumbers and pipe fitters, assemblers, packers, wrappers, sawyers, welders, laborers, freight handlers, timber cutting and logging, stock handlers, and warehouse laborers.

Selection Guidelines for Foot Protection (ANSI standard, Z41.1)

Safety shoes and boots provide both impact and compression protection. Where necessary, safety shoes can be obtained which provide puncture protection. In some work situations, metatarsal protection should be provided, and in other special situations electrically conductive or insulating safety shoes would be appropriate.

Safety shoes or boots with impact protection would be required for carrying or handling materials such as packages, objects, parts or heavy tools, which could be dropped; and, for other activities where objects might fall onto the feet. Safety shoes or boots with compression protection would be required for work activities involving skid trucks (manual material handling carts) around bulk rolls (such as paper rolls) and around heavy pipes, all of which could potentially roll over an employee's feet. Safety shoes or boots with puncture protection would be required where sharp objects such as nails, wire, tacks, screws, large staples, scrap metal etc., could be stepped on by employees causing a foot injury.

Some occupations (not a complete list) for which foot protection should be routinely considered are: shipping and receiving clerks, stock clerks, carpenters, electricians, machinists, mechanics and repairers, plumbers and pipe fitters, structural metal workers, assemblers, drywall installers and lathers, packers, wrappers, craters, punch and stamping press operators, sawyers, welders, laborers, freight handlers, gardeners and grounds-keepers, timber cutting and logging workers, stock handlers and warehouse laborers.

Selection Guidelines for Hand Protection (ANSI standard, 105)

Gloves are often relied upon to prevent cuts, abrasions, burns, and skin contact with chemicals that are capable of causing local or systemic effects following dermal exposure. OSHA is unaware of any gloves that provide protection against all potential hand hazards, and commonly available glove materials provide only limited protection against many chemicals. Therefore, it is important to select the most appropriate glove for a particular application and to determine how long it can be worn, and whether it can be reused.

It is also important to know the performance characteristics of gloves relative to the specific hazards anticipated, e.g., chemical hazards, cut hazards, flame hazards, etc. These performance characteristics should be assessed by using standard test procedures. Before purchasing gloves, the employer should request documentation from the manufacturer that the gloves meet the appropriate test standard(s) for the hazard(s) anticipated.

Other factors to be considered for glove selection in general include:

A. As long as the performance characteristics are acceptable, in certain circumstances, it may be more cost effective to regularly change cheaper gloves than to reuse more expensive types; and,

B. The work activities of the employee should be studied to determine the degree of dexterity required, the duration, frequency, and degree of exposure of the hazard, and the physical stresses that will be applied.

With respect to selection of gloves for protection against chemical hazards:

a. The toxic properties of the chemical(s) must be determined; in particular, the ability of the chemical to cause local effects on the skin and/or to pass through the skin and cause systemic effects;

b. Generally, any "chemical resistant" glove can be used for dry powders;

c. For mixtures and formulated products (unless specific test data are available), a glove should be selected based on the chemical component with the shortest breakthrough time, since it is possible for solvents to carry active ingredients through polymeric materials; and

d. Employees must be able to remove the gloves in such a manner as to prevent skin contamination.

Selection Guidelines for Personal Protective Clothing

The OSHA standards do not provide specific guidelines for the selection of protective clothing, however, OSHA does still expect compliance in this area. Therefore, follow the same guidelines in selecting protective clothing as you would for selecting gloves.