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PERSONAL PROTECTIVE EQUIPMENT

Introduction

Baton Rouge Community College is committed to providing a healthy and safe working environment for all members of the campus community. This Personal Protective Equipment (PPE) policy is designed to prevent workplace injuries and illnesses for all academic appointees, staff, students, and visitors.

Purpose

To prevent workplace injuries /illnesses and maximize health and safety for constituents of the College. This policy is applicable to all employees, students, and visitors of the College.

POLICY IMPLEMENTATION PROCEDURES

According to the OSHA and Office of Risk Management (ORM), employees, students, and others must use or wear the protective equipment, protective devices and clothing specified by the College. All personal protective equipment (PPE) shall be utilized and maintained in a sanitary and reliable condition whenever deemed necessary by reason of hazards, processes or environment. This policy applies to all employees who by nature of their job function have the potential to be exposed to chemical, physical, radiological and/or biological hazards which can cause illness, injury and/or impairment to any part of the body through absorption, inhalation, and/or physical contact. The following safety guidelines should be adhered to, to maximize worker health and safety.

I. Authority and Responsibility

The following departments and personnel are responsible for administering and coordinating the policy:

A. Immediate Supervisors

1. Ensuring PPE is available;
2. Provide PPE as required;
3. Providing PPE as required and/or upon request to all employees;
4. Ensuring PPE is being used by each affected employee during all job tasks which require such protection;
5. Conducting specific hazard assessments for personal protective equipment use upon request;
6. Documenting purchase and distribution of all PPE; and
7. Taking the appropriate corrective action in accordance Baton Rouge Community College policy.

B. Environmental Safety

1. Assessing the workplace to determine if hazards are present, or are likely to be present, which necessitates the use of PPE;
2. Communicating selection decisions to each affected employee and supervisor;



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3. Selecting and recommending PPE that properly fits each affected employee;
4. Providing training in the proper use and care of PPE; and
5. Documenting aforementioned hazard assessment components.

C. Employees

1. Inspecting all PPE prior to its use;
2. Wearing PPE upon the direction of their immediate supervisor;
3. Participating in mandatory training;
4. Notifying their supervisor when new PPE is necessary;
5. Contacting Environmental Safety when a hazard or process has changed which may render previously used PPE ineffective; and
6. Notifying their supervisor of any changes which might impact the type of PPE they utilize.

II. Considerations

PPE devices alone shall not be relied on to provide protection against hazards, but shall be used in conjunction with guards, engineering controls, administrative controls and sound manufacturing practices. When selecting PPE, utilize the following considerations as a basic directive:

- **Application:** What part of the body is being protected?
- **Chemical Resistance:** Will material maintain its structural integrity and protective qualities?
- **Strength:** Is the material resistant to punctures, tears, and abrasions?
- **Flexibility:** Does PPE provide the necessary dexterity?
- **Thermal Limits:** Does clothing maintain its mobility and protective capacity in temperature extremes?
- **Cleanable:** Can material be easily cleaned and reused?
- **Longevity:** Will clothing resist aging?

Contact Environmental Safety at 225-216-8283 for a personal protective equipment evaluation and recommendation.

A. Hand Protection

1. Hand protection shall be worn when hands are exposed to hazards such as those from skin absorption of harmful substances, cuts or lacerations, abrasions, punctures, chemical burns, thermal burns and harmful temperature extremes. The type of hand protection used shall be based on the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards or potential hazards identified. With respect to selection of gloves for protection against chemical hazards:
 - 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;
 - Generally, any “chemical resistant” glove can be used for dry powders;



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- For mixtures and formulated products (unless specific test data are available), a glove shall be selected on the basis of the chemical component with the shortest breakthrough time since it is possible for solvents to carry active ingredients through polymeric (a chemical compound or mixture of compounds formed by polymerization and consisting essentially of repeating structural units) materials; and
- Employees shall be able to remove the gloves in such a manner as to prevent skin contamination.
- Gloves shall be removed before touching public objects such as telephones, elevator buttons, or door handles to avoid cross contamination.

B. Head Protection

Head protection shall be worn in areas where there is a potential for injury to the head from impact, flying and/or falling objects (e.g., working below other workers who are using tools and materials which could fall through grates), and/or electrical shock and burns.

Helmets for protection against impact and penetration of falling objects shall comply with the “American National Standard for Personal Protection – Protective Headwear for Industrial Workers Requirements” (ANSI) Z89.1.2014.

C. Eye/Face Protection

Suitable eye protection or face protection shall be worn when there is the potential for exposure to the eyes and/or face from flying particles, molten metal, chemicals, gases and/or vapors and/or potentially injurious light radiation. Side protection is required when there is a hazard potential from flying objects. Detachable side protectors (e.g., clip-on or slide-on shields) meeting the pertinent requirements are acceptable.

Eye protection shall be durable, comfortable and easy to clean. Persons whose vision requires the use of corrective lenses and who by nature of their job duties require eye protection shall wear goggles or a full face shield that can be worn over the prescription lenses.

There are four general classes of eye and face protection: safety glasses face shields, goggles and welding helmets. The type of protection required shall be determined by the type and degree of the hazard and shall comply with ANSI Z87.1-2010 “American National Standard Practice for Occupational and Educational Eye and Face Protection”.

D. Foot Protection

Foot protection shall be worn when there is the potential for injury to the feet from falling or rolling objects, objects piercing the sole of the foot, electrical hazards, hot surfaces and slippery surfaces. Safety toe shoes are required for all trades at Baton Rouge Community College (e.g., electricians, building engineers, grounds, and general maintenance personnel). Foot protection shall comply with ASTM F2412-05 or F2413-05.



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E. Respirators

Use of respirators shall be done in accordance with the OSHA Respiratory Protection standards (CFR 1910.134).

F. Hearing Protection

Use of hearing protection shall be done in accordance with OSHA Occupational Noise Exposure standards (CFR 1910.95)

G. Fall Protection

Use of fall protection shall be done in accordance with the OSHA Personal Protective and Life Saving Equipment standards (CFR 1926 Subpart E).

H. Body Protection

Full body protection shall be worn when there is a potential for contamination or exposure to other parts of the body (e.g., legs, arms, back, chest) from heat, splashes from hot metals and liquids, impacts, cuts, chemicals, and radiation. Body protection includes the following:

- Lab coats
- Boot covers
- Aprons
- Bouffant caps
- Tyvek suits; and
- Coveralls.

I. Electrical Protective Devices

Rubber insulating equipment shall be used/worn to protect employees from shocks/burns while working on "live" electrical systems.

Listed below is the PPE that may be required for a specific electrical work project. All electrical PPE used at Baton Rouge Community College must meet the requirements of NFPA 70E and this section:

1. All-cotton undergarments. Shirts with silk screened or acrylic stitched logos that are of any size larger than a closed fist are not permitted.
2. Safety glasses with side shields is the minimum eye protection required when performing electrical work. No metal frames are allowed. The type of protection required shall be determined by the type and degree of the hazard and shall comply with ANSI Z87.1-2010 "American National Standard Practice for Occupational and Educational Eye and Face Protection".
3. Insulating hard hats. Insulating hard hats (helmets) must be worn any time there is a possibility of accidental head contact with any live electrical wires, conductors, or other conducting surfaces or any other surfaces that can cause injury.



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4. Class G hard hats are acceptable for electrical hazards having a maximum voltage of 2200 volts. If contact with any conductor above this voltage is possible, Class E hard hats are required. Class G hard hats must meet specification ANSI Z89.1 - Class G. Class E hard hats must meet the requirements of ANSI Z89.1 - Class E. Any other class of hard hats and metal hard hats must not be used near electrical hazards.
5. Insulated tools. Insulated tools must be used whenever a person is using hand tools on or near live electrical conductors. They must be used for voltages up to 1000 volts only. Above that voltage, special tools are required.
6. The only type of insulated tools within the scope of this description are those with the internationally recognized symbol.
7. Insulated tools must meet the requirements of specification ASTM F1505 or the IEC 900 standard. Dipping tools in plastic or wrapping handles with electrical tape does not meet requirements of an insulated tool.
8. Standard care is required for insulated tools as for any other tool. In addition, the insulating grips should be kept away from sharp edges, wire clippings, and other materials that could pierce the insulation. The tools must be kept clean. Solvents and other chemicals that could chemically attack the grip material should be stored and used clear from these tools. The provided package or a tool case that prevents the tool from contacting other tools and objects during storage is required.
9. Before each use, insulated tools must be visually inspected. In addition to normal checks for a standard tool of the same type, the grips should be visually inspected for cracks, holes, discoloration or wear. Do not use a tool that fails this inspection. Insulated tool grips usually have outer and inner insulation layers of contrasting colors. If the inner color is visible at any point through the outer layer, the tool must be taken out of service.
10. Arc-rated clothing and 100% natural fiber clothing provide workers with some protection from the hazards of an arc flash. It must be worn when performing energized electrical work as specified in accordance with NFPA 70E. FR clothing must be laundered in accordance with manufacturer's instructions to maintain its FR rating.
11. Rubber protective goods. Rubber protective goods cover a large group of items, including protective clothing and equipment such as rubber insulating gloves, line hose, blankets, matting, covers, and sleeves. Their common purpose is to place a physical insulating barrier between workers and electrically energized surfaces. In-depth information on various rubber protective goods can be found in the following references. All rubber electrical personal protective equipment used at Baton Rouge Community College must meet these specifications:
 - a. ANSI/ASTM F696 Specifications for Leather Protectors for Gloves;
 - b. ANSI/ASTM D178 Specifications for Rubber Insulating Matting;



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- c. ANSI/ASTM D1048 Specifications for Rubber Insulating Blankets;
 - d. ANSI/ASTM D1049 Specifications for Rubber Insulating Covers;
 - e. ANSI/ASTM D1050 Specifications for Rubber Insulating Line Hose;
 - f. ANSI/ASTM D1051 Specifications for Rubber Insulating Sleeves.
12. All electrical protective equipment shall be subjected to periodic electrical tests conducted in accordance with appropriate voltages identified by ASTM standards to reliably indicate whether the insulating equipment can withstand the voltage involved. Insulating equipment failing to pass inspections or electrical tests shall NOT be used by employees. Rubber insulating equipment test intervals shall occur as follows:
- a. Rubber insulating line hoses shall be tested upon indication that the insulating valve is suspect;
 - b. Rubber insulating covers shall be tested upon indication that the insulating valve is suspect;
 - c. Rubber insulating blankets shall be tested before first issue and every twelve months thereafter;
 - d. Rubber insulating gloves shall be tested before first issue and every six months thereafter; and
 - e. Rubber insulating sleeves shall be tested before first issue and every twelve months thereafter.
 - f. Rubber goods are divided into a number of classes based on their maximum insulating ability. These classes are defined below. The associated color used to define the class is also given.
 1. Class 00 - 500 volts Beige
 2. Class 0 - 1000 volts Red
 3. Class 1 - 7500 volts White
 4. Class 2 - 17,000 volts Yellow
 5. Class 3 - 26,500 volts Green
 6. Class 4 - 36,000 volts Orange

Note: If the insulating equipment has been electrically tested but not issued for service, it shall not be placed into service unless it has been electrically tested within the previous twelve months.

III. Maintenance Schedules

1. PPE shall be inspected, cleaned and maintained by employees at regular intervals so it can be discarded, changed and/or decontaminated as necessary. At a minimum, all PPE shall be discarded when it has become contaminated, worn, torn or has other integrity problems. It is important to ensure that contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards while ensuring compliance with appropriate regulations.
2. Keep a testing log for each item that is utilized for electrical safety. Ensure that major tests are performed on time at a qualified laboratory and by competent people. Testing intervals are specified in OSHA regulations 29 CFR 1910.137(b)(2) and the associated



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Table I-6, and NFPA 70E Table 130.7(C)(7)(c). Currently, these regulations require tests by a qualified laboratory as follows:

- **Gloves:** Before first use and every 6 months while in service.
- **Blankets:** Before first use and every 12 months thereafter.
- **Covers:** Before first use and upon indication that insulating value is suspect.
- **Line hose:** Before first use and upon indication that insulating value is suspect.
- **Sleeves:** Before first use and every 12 months thereafter.

Note: Inspect all PPE before each use for tears, punctures, holes, cuts, cracks, embedded foreign objects and texture changes (e.g., swelling, softening, hardening, becoming sticky and/or inelastic).

IV. Training

1. Initial training shall be provided by Environmental Safety. Each employee shall be trained in at least the following:
 - When PPE is necessary;
 - What PPE is necessary;
 - How to properly don, doff, adjust, and wear PPE;
 - The limitations of the PPE; and
 - The proper care, maintenance, useful life and disposal of the PPE.Each affected employee shall demonstrate an understanding of the aforementioned training and the ability to use PPE properly before being allowed to perform work requiring the use of PPE.
2. When there is reason to believe that any affected employee who has already been trained does not have the understanding and skill as required above, Environmental Safety or the affected department shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:
 - Changes in the workplace render previous training obsolete;
 - 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 the employee has not retained the requisite understanding or skill.

V. Recordkeeping

Environmental Safety shall verify each affected employee has received and understood the required training through a written certification containing the name of each employee trained, the date(s) of training and the subject of certification.