

Personal protective equipment

by Dan R. Stockwell

Before you begin, obtain the following:

- An example of the personal protective equipment (PPE) hazard assessment and selection form (see last page);
- A copy of your safety rules on the use of PPE.



Eliminating hazards is important for a safe work site. However, it may not be possible to eliminate all hazards through engineering design, guarding or administrative controls. In these cases, the use of PPE is necessary.

According to OSHA section 5A1 employers are responsible for providing a workplace free of recognized hazards that can seriously harm employees. To determine potential workplace hazards, the standard requires a written hazard assessment of each job function. If the assessment determines a hazard exists, then you must use the appropriate PPE.

The following sections may help with the PPE selection process.

Eye and face protection

Based on an assessment, affected employees should use appropriate eye or face protection when exposed to hazards. These hazards include flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. Examples of PPE are safety glasses, goggles and face shields.

You may select welding, cutting and brazing eye protection from information available in the “Filter Lenses for Protection Against Radiant Energy” table found in section 1910.133 (a) (5) of the OSHA Eye and Face Protection standard. All protective eye and face devices should meet the requirements of ANSI Standard Z87.1, “American National Standard Practice for Occupational and Educational Eye and Face Protection.” In addition, you should review the general requirements section of the OSHA standard 1910.133 (Eye and face protection).

Foot protection

Your organization’s employees may work in an area that could be dangerous for foot injuries. For example, an area may have falling or rolling objects, objects that could pierce a shoe’s sole, and/or electrical hazards exposure. Based on these dangers, the area’s employees should wear footwear meeting the requirements of the ASTM international standards F2412 “Test methods for foot protection” and F2413 “Specifications for performance requirements for protective footwear.”

Examples of PPE are safety shoes, rubber boots and metatarsal guards.

Review the general requirements of OSHA standard 1910.136 (Occupational foot protection).

Hand protection

Appropriate gloves should be worn when employees' hands are exposed to potential hazards. These hazards may include skin absorption of harmful substances, severe lacerations, abrasions, punctures, chemical and thermal burns and harmful temperature extremes. Selecting a glove is based on the glove's performance characteristics, the job tasks to be performed and the conditions and duration of the glove's use.

Review the general requirements for OSHA standard 1910.138 (Hand protection).

Head protection

In areas where there is a potential for head injuries from falling objects or bumping into items, wear protective helmets/hard hats. Hard hats should meet the requirements of ANSI Standard Z89.1. Review the general requirements for OSHA standard 1910.135 (Head protection).

Protective clothing

Select protective clothing based on the potential hazards that you might encounter (i.e., heat and chemicals). Examples of PPE are protective coveralls, aprons and arm gauntlets.

Electrical protective devices

Insulating blankets, matting, covers, line hose, gloves and sleeves made of rubber should meet the requirements contained in OSHA standard 1910.137 (Electrical protective devices).

Hearing protection

Hearing protection is listed on the PPE hazard assessment and selection form. Review OSHA standard 1910.95 (Occupational noise exposure) for hearing protection guidelines.

Respiratory protection

Although respiratory protection is listed in the PPE hazard assessment and selection form, the OSHA Respiratory Protection standard 1910.134 should be reviewed for program guidance.

Training and documentation

According to the OSHA PPE standard, training is an important element in a PPE program. You should discuss the following items during the training process:

- When and what PPE is necessary;
- How to properly put on, take off, adjust and wear PPE;
- Proper care, maintenance, useful life and disposal of PPE.

OSHA says affected employees should understand the training and how to properly wear PPE. You should use practical and written exercises to meet this requirement.

When an employer believes training is not understood by employees, retraining will be available. Retraining will also be done when there are changes in the workplace, or PPE makes the previous training obsolete.

Documentation should verify employees received and understood the training. This documentation includes the name of each person trained, the training date(s) and the subject matter.

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BWC always strives to improve the *Safety Leader's Discussion Guide*. Your feedback can help. Please send your comments via e-mail to Safety@ohiobwc.com.

References

Regulations

Occupational Safety and Health Administration:
www.osha.gov

- 29 CFR 1910.132 (General Requirements)
- 29 CFR 1910 Subpart I Appendix B (Non-mandatory Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection)

Personal protective equipment

Hazard assessment and selection

Plant: _____

Department: _____

Job: _____

Check required personal protective equipment	Type or model
<input type="checkbox"/> Eye protection (Safety glasses with side shield)	
<input type="checkbox"/> Face protection (Goggles/face shield)	
<input type="checkbox"/> Hearing protection (Plugs/muffs)	
<input type="checkbox"/> Respiratory protection (Specific use)	
<input type="checkbox"/> Hand protection (Specific use)	
<input type="checkbox"/> Protective clothing (Specific use)	
<input type="checkbox"/> Head protection (Hard hat)	
<input type="checkbox"/> Foot protection (Safety shoes/ metatarsal guards)	
<input type="checkbox"/> Electrical protective devices (Insulated sleeves/blankets)	
<input type="checkbox"/> Other	
<input type="checkbox"/> Other	

Comments:

Assessment conducted and certified by: _____

Date: _____