

Toolbox Talk # 3.06 – PPE Overview

What is PPE?

Personal protective equipment includes all clothing and accessories designed to create a barrier against workplace hazards. The basic element of any personal-protective-equipment management program should be an in-depth evaluation of the equipment needed to protect against the hazards at the workplace.

Hazards of PPE

No single combination of protective equipment and clothing is capable of protecting against all hazards. Thus, PPE should be used in conjunction with other protective methods. The use of PPE can itself create significant worker hazards, such as heat stress, physical and psychological stress, and impaired vision, mobility, and communication.

In general, the greater the level of PPE protection, the greater are the associated risks. For any given situation, equipment and clothing should be selected that provide an adequate level of protection. Over-protection as well as under-protection can be hazardous and should be avoided.

Head protection

Head injuries are caused by falling or flying objects, or by bumping the head against a fixed object. Head protection, in the form of protective hats, must do two things—resist penetration and absorb the shock of a blow.

This is accomplished by making the shell of the hat of a material hard enough to resist the blow, and by utilizing a shock-absorbing lining composed of headband and crown straps to keep the shell away from the wearer's skull. Protective hats are also used to protect against electrical shock.

Eye and face protection

Eye and face protective equipment is required by OSHA where injury can be prevented with its use. Employers must provide you with a type of protector suitable for work to be performed and employees must use the protectors.

Each eye, face, or face-and-eye protector is designed for a particular hazard. In selecting the protector, your employer should consider the kind and degree of hazard, and the protector should be selected on that basis.

Hearing protection

Exposure to high noise levels can cause hearing loss or impairment. It can create physical and psychological stress. There is no cure for noise-induced hearing loss, so the prevention of excessive noise exposure is the only way to avoid hearing damage. Specifically designed protection is required, depending on the type of noise encountered. Two common types of hearing protection are earplugs and earmuffs. Both have their advantages and disadvantages:

- Preformed or molded earplugs need to be individually fitted by a professional. Waxed cotton, foam, or fiberglass wool earplugs are self-forming. When properly inserted, they work as well as most molded earplugs.
- Earmuffs need to make a perfect seal around the ear to be effective. Glasses, long sideburns, long hair, and facial movements, such as chewing, can reduce protection. Special equipment is available for use with glasses or beards.

For extremely noisy situations, earplugs should be worn in addition to earmuffs. When used together earplugs and earmuffs change the nature of sounds; all sounds are reduced including one's own voice, but other voices or warning signals are easier to hear.

Arm and Hand Protection

Some examples of injuries to arms and hands are burns, cuts, electrical shock, amputation, and absorption of chemicals. There is a wide assortment of gloves, hand pads, sleeves, and wristlets available for protection from various hazardous situations.

The protective device should be selected to fit the job. For example, some gloves are designed to protect against specific chemical hazards. Whatever type you use, make sure you are familiar with the limitations of the clothing used.

Foot and Leg Protection

To protect your feet and legs from falling or rolling objects, sharp objects, molten metal, hot surfaces, and wet slippery surfaces use appropriate footguards, safety shoes, or boots and leggings.

Aluminum alloy, fiberglass, or galvanized steel footguards can be worn over usual workshoes, although they present the possibility of catching on something and tripping workers. Heat-resistant soled shoes protect against hot surfaces like those found in the roofing, paving, and hot metal industries.

Make sure that your safety shoes are sturdy and have an impact-resistant toe. In some shoes, metal insoles protect against puncture wounds. Additional protection, such as metatarsal guards, may be found in some types of footwear. Safety shoes come in a variety of styles and materials, such as leather and rubber boots and oxfords.

General life-threatening hazards

If you are working at night and there is the chance you might be struck by moving vehicles, then you need suits or vests designed to reflect light.

Flagmen have to be provided and must wear a red or orange warning garment while flagging. Warning garments worn at night must be of reflectorized material.

Personal protective equipment is important at your jobsite. Sometimes it can mean the difference between going home uninjured at the end of the day or a tragedy. Your boss is responsible to: (1) get you the proper equipment for the job, (2) ensure you wear it, and (3) set up a PPE program.

You must take the responsibility to: (1) take care of your PPE, and (2) wear it at all times when required.

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Project: _____

Date: _____

Supervisor: _____

Company: _____

Other safety issues covered or comments from crew members:

Attendees:

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