PERSONAL PROTECTIVE EQUIPMENT REFRESHER TRAINING

INTRODUCTION

People have used personal protective equipment (PPE) for centuries to protect themselves while they work. For example:

- Medieval knights had armor
- Blacksmiths have always used a leather apron
- Cowboys wear leather chaps
- Firemen wear heavy coats and special helmets

The Occupational Safety and Health Administration (OSHA) requires you to wear the right PPE whenever you work in a potentially hazardous situation. PPE today, as in the past, makes working safer and you more productive.

PPE is important. So important, that in 1994, OSHA established 29 CFR 1910.132-138, the “Personal Protective Equipment” Standard.

Briefly stated, this Standard requires that employers must establish an effective PPE Program for employees and that employees be trained in the proper use of PPE.

EYE AND FACE PROTECTION

Thousands of people are blinded each year from work related eye injuries. Injuries that could have been prevented, if only people would have used eye or face protection.

If you are exposed to potentially dangerous chemicals or flying particles, you need eye and face protection. Eye and face protection are available as safety glasses, goggles and face shields.

Safety glasses or goggles protect against flying objects such as particles and dust. Eye protection can be tinted, anti-fog or have prescription lenses.

Face shields can be worn with safety glasses or goggles for additional protection. If you work with light rays or other radiant energy, you need goggles or face shields equipped with special filters.

Prescription glasses and contact lenses do not protect your eyes. In fact, wearing contact lenses at work can make a hazardous situation even more hazardous by trapping material under them or magnifying injurious light rays.

HEARING PROTECTION

Noise is a common problem found in many workplaces. Research has shown that high levels of noise can damage your hearing. Losing your hearing is a gradual process, and is less noticeable than other types of workplace injuries. It is, however, a permanent handicap for those who are affected. You should wear hearing protection when you are exposed to noise that is 85 decibels or greater for an 8 hour period of time.

The goal of hearing protection is to reduce your exposure to harmful noise while at the same time allowing you to hear machine warnings and voices. Hearing protection devices fall into two broad categories – earplugs and earmuffs.

Foam Earplugs

Foam earplugs provide the most protection.

To insert foam earplugs properly:

- Reach around the back of your head, and gently pull your ear back and up
- Roll the plug into a small diameter
- Insert the plug well into the ear canal
- Hold the plug in place for a few seconds while it expands and forms a good seal

Earmuffs

Earmuffs are cushioned and cupped ear coverings attached to a headband or your hard hat. They come in a wide variety of sizes and kinds.

When using earmuffs:

- Make sure the earmuffs fit snugly around your ears
- Consider using earplugs if you wear glasses, earrings or have facial hair that would prevent the earmuffs from forming a good seal around your ears

In areas with extremely high noise levels, you may have to wear both earplugs and earmuffs.

HEAD PROTECTION

Your head is a very delicate part of your body and head injuries can be very serious. For those reasons, head protection is very important.

Hard hats protect you by providing the following features:

- A rigid shell that resists and deflects blows to the head
- A suspension system inside the hat that acts as a shock absorber
- Some hats serve as an insulator against electrical shocks
- Shields your scalp, face, neck and shoulders against splashes, spills and drips
- Some hard hats can be modified so you can add face shields, goggles or hearing protection to them

Hard hats are classified according to impact requirements:

- **Type I** – To reduce impact from a blow to the top of the head
- **Type II** – To reduce impact from a blow received off-center to the top of the head

In addition, both Type I and II hard hats are rated for electrical protection:

- **Class G (general)** – reduce danger of contact exposure to low voltage – not over 2,200 volts
- **Class E (electrical)** – reduce danger of exposure to high-voltage conductors and are proof-tested to 20,000 volts
- **Class C (conductive)** – protective when there's **no** danger of electrical shock

Inspect hard hats before and after each use. Although there is no set service life for hard hats, manufacturers recommend replacement after no more than 5 years.

HAND PROTECTION

It has been estimated that 20% of all disabling accidents on the job involve the hands. Human hands are unique. They are two of your greatest assets. And, as such, must be protected and cared for.

No single glove type protects you against every hand hazard. In fact, there are many types of gloves designed to protect your hands. As with most PPE, you must choose the right protection for the job.

- Select gloves that fit
- Some gloves are chemical specific and have a life expectancy; discard them after their expiration date

- Remove any rings, watches or bracelets that might cut or tear your gloves
- Before you use them, inspect your gloves for holes, rips, or anything that may weaken their effectiveness
- Replace gloves that are worn or torn
- After working with chemicals, hold your gloved hands under running water to rinse away chemicals or dirt before removing the gloves
- Avoid borrowing gloves; gloves are personal protective equipment
- Store gloves right side out in a clean, cool, dry, ventilated area

FOOT PROTECTION

Scientists and engineers for centuries have marveled at the design and structure of the human foot. It is rigid enough to support the weight of your entire body, and yet flexible enough to allow you to run, dance, play sports and take you anywhere you want to go.

Many workplace foot injuries are caused by small objects no heavier than a few pounds and dropped from a height less than four feet. Most workers who suffer foot injury fail to wear the proper safety shoes or boots.

- Select and use the right kind of footwear for the job
- Avoid footwear made of leather or cloth if you work around acids or caustics
- Select footwear that fit
- Inspect your footwear before you use them
- Replace footwear if worn or torn
- After working with chemicals, hose your footwear off with water before removing them
- Avoid borrowing footwear; safety footwear is personal protective equipment

FULL BODY PROTECTION

Some hazards call for your body to be totally covered. Workers need fire-retardant clothing when working on high-voltage equipment or around fire hazards. If you work around traffic, high-visibility clothing helps make you safer. If you work with chemicals, you need some of the toughest PPE. This PPE is necessary in cases where chemicals absorbed through your skin could cause death, injury or serious illness.

Remember: Which chemical-protective clothing you need depends on the type of chemicals to which you are exposed.

CONCLUSION

PPE should never give you a false sense of security. It's there to protect you in case other safety measures fail. Wear PPE as an added safety feature, not a substitute for other necessary safety procedures.

Familiarize yourself with the limitations of your PPE. Once you know the PPE limitations, do not exceed them.

When selecting one piece of PPE to be used with another, consider their compatibility. Sometimes one piece of PPE can interfere with the operation of another. For example, safety glasses may prevent a pair of earmuffs from creating the necessary seal to protect your ears from excessive noise exposure.

Whether you need eye, face, hearing, head, hand, foot or total body protection, you need to use the right PPE to reduce your risk of injury.