



## ***ABOUT PERSONAL PROTECTIVE EQUIPMENT***

LENGTH: 12 MINUTES

### **PROGRAM SYNOPSIS:**

Our workplace is full of hazards, hazards that can hurt us, or kill us. Controlling these hazards and preventing injuries is the point of our safety and health program. When our body parts are exposed to certain hazards there is a potential for bodily harm to occur. Properly selecting and wearing personal protective equipment can reduce or eliminate this exposure, prevent injuries and save lives. That is the point of our facility's personal protective equipment program and that is the point of this program.

Topics include hardhats, hearing protection, eye and face protection, gloves and hearing protection.

### **PROGRAM OBJECTIVES:**

After watching the program, the participant will be able to explain the following:

- What types of hardhats are available and how they should be worn;
- What types of hearing protection can be used to protect hearing in noisy environments;
- What types of eye and face protection are available and the hazards they protect against.
- Which hazards specific types of gloves will protect our hands from;
- What types of shoes and boots should be worn in industrial environments..

### **INSTRUCTIONAL CONTENT:**

#### **TRAINING & RESPONSIBILITY TO WEAR PPE**

- Always remember that wearing any required PPE is one of your most important job duties.
- There really are no good reasons for not wearing it; the potential consequences just aren't worth it.
- You will be trained on the proper selection and use of the specific PPE required to perform your job duties.
- You must then be able to demonstrate how to properly use the equipment and understand which situations require its use.
- If you have any questions about the protective equipment needed to perform your job, make sure to ask your supervisor before you begin a task.

#### **HARDHATS**

- A hardhat is required in all situations where the head is at risk of injury from falling or moving objects; or when it may come into contact with energized electrical parts.
- There are a variety of types and classes of hardhats. Always choose one that will provide adequate protection for the hazards you may encounter on your job.
- Type I hardhats protect against a direct impact to the top of the hardhat, while Type II hardhats protect against both side and top impacts.
- When working around electricity, be aware that Class G hard hats are rated for up to 2,200 volts while Class E hardhats are rated for up to 20,000 volts.
- Class C hardhats offer no electrical protection and should not be worn near energized parts.
- A hardhat is constructed of two parts: the inner suspension system and the outer shell.
- Nothing should be placed between the inner suspension system and the shell, as this reduces its effectiveness.
- The bill of the hardhat is designed to protect the nose and the face, so it should be worn forward at all times.
- You should keep your hardhat clean and inspect it for damage frequently. Be aware that the outer shell can become weak, soft or brittle from exposure to sunlight or certain chemicals.
- Be sure to check the webbing for damage and that it is properly secured inside the hardhat.
- If you find damage that cannot be repaired, remove the hardhat from service and get a new one.

#### **HEARING PROTECTION**

- Many workers don't realize that noise can be a hazard because its damaging effects are not immediate. Hearing loss usually occurs gradually, over time. Many people are not aware their hearing has been damaged until it's too late.
- Workers exposed to harmful noise must make it a point to always wear their hearing protection to avoid permanent hearing loss in the future.
- Earplugs are the most common type of hearing protection and are available in many sizes. Earplugs may be disposable or reusable.
- When installing disposable earplugs, first make sure your hands are clean. Then roll the plug in your finger to compress it and insert it into your ear canal.

- Once inserted, hold your finger on the end of the plug for a few seconds. The plug will expand to fill your ear canal. To be installed properly the earplug must be inserted into, and expand inside the ear canal.
- Pulling up on the top of the ear can help align the ear canal and make proper insertion easier.
- Another type of hearing protection is canal caps. Canal caps have flexible tips on a molded headband and only cover the opening of the ear canal.
- Canal caps provide less protection than earplugs, but they are easier to install and are good for jobs in which hearing protection must be taken on and off frequently.
- Earmuffs are another common type of hearing protection. Earmuffs completely cover the ears with a pair of cups connected by a headband. To be installed properly each muff must make a solid seal completely around each ear.
- In very loud environments, earmuffs can be worn over earplugs to increase the amount of noise reduction.
- The Noise Reduction Rating of earmuffs and earplugs indicates the level of protection they are designed to provide.
- For hearing protection to provide its rated noise reduction, it must be installed properly. Ask your supervisor if you are unsure.

## **EYE & FACE PROTECTION**

- Standard safety glasses provide the most basic protection for our eyes.
- At a minimum, all workers must wear safety glasses with side shields; however, job tasks in which small particles are generated or where hazardous liquids may splash or spray, more eye protection is required. Safety goggles will provide this additional protection.
- In addition to protecting our eyes, we frequently need to also protect our face.
- Grinding, chipping and other jobs that generate sparks or high speed projectiles require the use of a face shield.
- A face shield is also required when you are at risk of being splashed by a hazardous liquid.
- Be aware that a face shield is only designed to protect the face and is not adequate to protect the eyes.
- Always wear appropriate eye protection underneath a face shield.
- Welders and workers whose jobs involve the use of lasers must protect their eyes from ultraviolet light.
- Laser operators must match their eye protection to the wavelength of the specific laser beam being used.
- Be aware that safety eyewear for lasers looks similar to "regular" safety glasses or goggles. Make sure you have selected the proper eye protection for the laser you plan to use.
- Before performing welding operations, select a lens appropriate for the intensity of the light to be produced. You should choose the darkest shade that still allows adequate vision for the job.
- Be aware that lenses lose their effectiveness over time and should be changed periodically.
- If auto-darkening lenses are used, make sure you fully understand how to adjust and operate your lens before use.

## **GLOVES**

- Because we use our hands to perform almost every task we do, they are constantly exposed to hazards. Make it a point to always protect your hands from hazards.
- There are a variety of gloves available to protect our hands. Keep in mind that no single glove is effective for all job tasks.
- Lightweight cloth gloves can protect our hands from minor hazards that can cause scrapes, scratches and blisters.
- Heavy leather gloves should be worn when handling materials with sharp edges, burrs, splintered wood and other items that pose cutting and puncture hazards.
- Gloves made of rubber, vinyl or neoprene protect against certain types of hazardous chemicals. Chemical workers can refer to a substance's Safety Data Sheet to learn which type of glove is recommended.
- Disposable rubber, plastic or latex gloves are effective when there is the risk of exposure to infectious materials or bloodborne pathogens.
- If you have any questions about whether a glove will protect against a certain hazard, you can check the glove manufacturer's recommendations or ask your supervisor.
- The point to be learned here is that you must take the time to select the proper glove for each task and be aware that you must often switch the type of glove used when changing jobs.

## **FOOT PROTECTION**

- Practically every type of workplace contains some type of foot hazard. This is why flip flops, sandals and other types of open toe footwear are prohibited.
- At a minimum, industrial workers should wear shoes or boots with soles that provide good traction, an enclosed toe box and solid leather sides and uppers.
- Many industrial operations require employees to wear safety shoes or boots with reinforced toe boxes, commonly called steel toed shoes, with puncture-resistant soles.
- A reinforced toe box can prevent our toes from being crushed from falling objects and a puncture resistant sole can prevent sharp objects from penetrating into the bottom of our foot.
- In some heavy industrial environments the top of the foot, known as the metatarsal area, requires additional protection. Some boot and shoes have built in metatarsal guards for this purpose. Strap-on metatarsal guards are also available.
- Be aware that modern safety shoes often look just like our regular shoes, and you may be able to get away with not wearing your safety shoes to work, but don't do it. It just takes an instant for a crushing foot injury to occur.