

## **PPE:** *Head To Toe*

This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation. Featured are:

**INTRODUCTION:** A brief description of the program and the subject that it addresses.

**PROGRAM OUTLINE:** Summarizes the program content. If the program outline is discussed before the video is presented, the entire program will be more meaningful and successful.

**PREPARING FOR AND CONDUCTING THE PRESENTATION:** These sections will help you set up the training environment, help you relate the program to site-specific incidents, and provide program objectives for focusing your presentation.

**REVIEW QUESTIONS AND ANSWERS:** Questions may be copied and given to participants to document how well they understood the information that was presented. Answers to the review questions are provided separately.

### **INTRODUCTION**

Failing to plan is planning to fail—and that's exactly what you're doing when you choose not to wear the proper personal protective equipment for your job. That's the message of this program that provides an easy-to-understand overview of the variety of PPE available to help make the job tasks we undertake safe. Included are several reenactments of workplace incidents in which the proper use of PPE prevents severe or life-threatening injuries.

Topics include employer and employee responsibilities regarding PPE, hard hats and eye protection, hearing protection, use of respirators, protective clothing, hand protection and foot protection.

### **PROGRAM OUTLINE**

#### **ARC FLASH INCIDENT**

Mike was opening an electrical panel when one of the wires in the back of the metering section rubbed against a sharp edge on the panel, causing an arc blast. "It basically blew and a great big ball of fire came flying out at me," he says. Because he was wearing the appropriate PPE, his eyes, face and body were protected from the 35,000-degree current. "I always heard this one statement that stuck with me for a long time is 'failing to plan is planning to fail'," Mike says, "and that's exactly what you are doing when you're not getting your proper personal protective equipment on."

#### **EMPLOYER/EMPLOYEE RESPONSIBILITIES**

- We know the purpose of PPE is to protect us from the potential hazards in our workplaces, but these protective measures don't do a bit of good unless we know how to use them and when to use them.
- Employees and employers are both responsible to make a PPE program successful.
- It's your employer's responsibility to develop and maintain a PPE program. That includes identifying and assessing the physical and health hazards or potential hazards where you work as well as training employees how to use and maintain PPE.
- Employers also have to review, evaluate and update the PPE program on a regular basis.
- Employees also have responsibilities in this effort to keep the workplace safe. First, learn as much as you can about the protective equipment at those training sessions.
- Second, when you put on the PPE, make sure it fits. If it doesn't fit, it probably won't work.

- Third, keep your equipment in good clean working order. If it's damaged or worn, get it replaced.

### **HARDHATS**

- Your best protection against falling objects or objects that are head-high is the hardhat.
- There are different classes of hardhat, depending on the type of job you're doing. It's the employer's responsibility to determine the class of hardhat for you to wear.
- It's the employee's responsibility to wear the hardhat. Most workplaces have very clear policies about wearing hardhats.

### **EYE PROTECTION**

- A government study reported that as many as 2,000 on-the-job eye injuries happen every single day. There's plenty of hazards, both on and off the job that can damage our eyes.
- Flying objects such as chips, particles and sparks can hit the eye.
- Some kinds of dust can cause irritation or injury.
- A variety of liquids and chemicals can produce dangerous mists, vapors or splashes.
- Intense heat and light can also cause harm.
- Each hazard calls for its own type of protection and the employer is responsible to identify and provide the right eye protection.
- For example, safety glasses with side shields provide basic attention in general work areas where dust or flying particles may be present.
- If you work in conditions where there's a greater hazard from dust, flying particles or possible chemical splashes, goggles will provide much greater protection than safety glasses.
- There are many kinds of goggles available, each designed to protect the eyes from specific hazards.
- For even greater protection from hazards like flying particles or hazardous chemical splashes, you may be required to wear a face shield over those glasses or goggles.
- For protection from the intense heat and light exposure of torch-cutting or welding, a helmet with filtered lenses is required.
- Contact lenses, sunglasses and regular prescription glasses are not a substitute for safety eyewear; they can even make an eye injury more severe.
- Contact lenses can trap particles and chemicals against the eye and ordinary prescription glasses or sunglasses can shatter on impact.

### **EYE INJURY VICTIM**

A maintenance worker was standing below a pipe soldering a joint. The solder dropped off, hit the lens of his safety glasses and hit him in the eye brow. His eye brow was burned, but he would have lost his eye had he not been wearing his safety glasses. "It would have burnt my eye right out, would have probably burned right through the eyeball," he says.

## **HEARING PROTECTION**

- If noise can't be reduced to a safe exposure level, OSHA requires employers to develop a hearing conservation program, which includes providing employees with hearing protection and training them how to use it effectively.
- Like other PPE, there are specific types of hearing protection depending on exposure. There are basically two types of hearing protection: those that fit inside the ear, such as earplugs and those that fit outside the ear, such as earmuffs. Each has advantages and disadvantages.
- Some earplugs are made of expandable foam and others are pre-molded. They are lightweight and inexpensive.
- Canal caps have soft pads that seal the entrance to the ear canal.
- Earmuffs cover the outside of the ear; they're easy to fit and durable.
- In extreme noise, it may be necessary to wear earplugs and earmuffs. The level of noise in your workplace will help your employer determine the level of protection you need.

## **RESPIRATORY PROTECTION**

- When the job requires you to work in conditions where you could experience harmful exposure to dust, harmful sprays, fumes or vapors, the respirator could be a part of your required dress code.
- There are two basic types of respiratory protection: the air-purifying respirator and the air-supplying respirator. OSHA has very specific rules regarding the types of respirators to be used in different conditions.
- No matter what kind of respirator you are using, it has to fit correctly or it won't do its job. It's the employer's responsibility to make sure each employee is medically approved to wear a respirator.
- It's also the employer's job to determine the type of respirator that's needed, train employees how to use and care for them and fit-test each employee with their respirator before using it.
- It's the employee's job to wear the respirator correctly and follow the manufacturer's guidelines for cleaning and storage.
- The air-purifying respirator filters dust, vapors and other contaminants. There is a wide variety of half-mask and full-mask respirators that have filters and cartridges to effectively filter specific hazardous contaminants; they are designed to fit securely against your face so the air you breathe passes through the purifying filters.
- When the job calls for you to work in conditions where the exposure could be life-threatening or breathable oxygen is nearly non-existent, you put on your air-supplying respirator and go to work.
- Filtering face pieces, often referred to as disposable dust masks, are another common form of respiratory protection. There are many varieties available and they are for low-hazard conditions such as nuisance dust.
- They generally don't provide protection from chemicals, gases or vapors. As with other respirators, it's the employer's job to identify the type that's needed and train employees how to use and care for them.

## **PROTECTIVE CLOTHING**

- You need 100 percent protection when working with corrosives, flames, hot liquids or other hot materials. That includes the proper clothing to protect the body.
- Some jobs call for flame-resistant or flame-retardant materials; the dress code for other jobs is a head-to-toe protective suit.

- In other work settings, high-visibility vests are another important piece of PPE. Their job is to make sure you're easily seen by co-workers or operators of vehicles and equipment.

### **HAND PROTECTION**

- About 70 percent of the hand injuries that happen on the job are the result of the worker not wearing gloves. (An injured worker who has received a cut to the hand is shown.) In this case, simply putting on the right protective gloves would have eliminated the cut, the rush to the emergency room and the half dozen stitches.
- Fortunately, there are gloves to protect our hands from almost every hazard, whether it's mild irritants, toxic or corrosive chemicals, sharp edges, temperature extremes, electricity, etc.
- After your employer selects the right protective gloves for your job, it's up to you to wear the gloves and make sure they get replaced when they're worn or damaged.

### **FOOT PROTECTION**

- (A maintenance worker without safety shoes is injured when the motor he is servicing falls and hits him in the foot.) Without the right safety shoes or boots to protect against that impact, his foot was no match for the heavier opponent.
- A pair of protective boots or shoes is a must in a place where there are hazards underfoot or over-foot. You need protection, not only from falling objects, but also underfoot from cuts, punctures, wet and slippery surfaces as well as heat or corrosive chemicals.

### **POTENTIAL FOOT INJURY**

A 200-250 pound rail falls off a cart and strikes a worker's steel-toed boot. "Gashed the leather on the toe a little bit, you know, went down to the steel toe, but saved my toe from getting crushed. Could have been crushed or cut off," he says.

### **CONCLUSION**

- This program has presented personal protective equipment in a nutshell, barely scratching the surface. That's why employees need to be reminded once again that it's their responsibility to learn about the personal protective equipment their employer provides them and use it.
- A lot of PPE can be purchased at your local hardware store or various other retail outlets; after all, it's just as important to protect yourself when you're away from work.
- Whether your job takes place at the factory, on the construction site, out in the yard or inside the home, it's important to remember that there will always be the need for personal protective equipment—that last line of defense against injuries.

## **PREPARE FOR THE SAFETY MEETING**

Review each section of this Leader's Guide as well as the videotape. Here are a few suggestions for using the program:

Make everyone aware of the importance the company places on health and safety and how each person must be an active member of the safety team.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline.

Copy the review questions included in this Leader's Guide and ask each participant to complete them.

Copy the attendance record as needed and have each participant sign the form. Maintain the attendance record and each participant's test paper as written documentation of the training performed.

### **Here are some suggestions for preparing your Videotape equipment and the room or area you use:**

Check the room or area for quietness, adequate ventilation and temperature, lighting and unobstructed access.

Check the seating arrangement and the audiovisual equipment to ensure that all participants will be able to see and hear the videotape program.

## **CONDUCTING THE PRESENTATION**

Begin the meeting by welcoming the participants. Introduce yourself and give each person the opportunity to become acquainted if there are new people joining the training session.

Explain that the primary purpose of the program is to provide viewers with an overview of various types of PPE while stressing the responsibilities of employers and employees regarding providing and wearing protective gear.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline. Lead discussions about the specific types of PPE used at your facility and when it is required. Use the review questions to check how well the program participants understood the information.

After watching the videotape program, the viewer will be able to identify the following:

- Employer and employee responsibilities regarding PPE;
- Types of eye protection and when they should be worn;
- Use of earplugs and earmuffs;
- When protective clothing is required;
- The importance of wearing the proper hand and foot protection.

**PPE:**  
***Head To Toe***  
**REVIEW QUIZ**

Name \_\_\_\_\_ Date \_\_\_\_\_

*The following questions are provided to check how well you understand the information presented during this program.*

1. Employers and employees are both responsible for making a facility's PPE program successful.
  - a. true
  - b. false
  
2. There are as many as \_\_\_\_\_ workplace eye injuries each day.
  - a. 200
  - b. 1,000
  - c. 2,000
  
3. Some noisy environments require employees to wear both earplugs and earmuffs.
  - a. true
  - b. false
  
4. Which type of respirator uses filters or cartridges to filter specific hazardous contaminants?
  - a. air-purifying
  - b. air-supplying
  
5. What is the percentage of workplace hand injuries that results from employees not wearing gloves?
  - a. 50
  - b. 70
  - c. 90
  
6. You are responsible for selecting the appropriate gloves for your job.
  - a. true
  - b. false
  
7. It's just as important to use PPE to protect yourself when you are away from work as it is when you are on the job.
  - a. true
  - b. false

*ANSWERS TO THE REVIEW QUESTIONS*

1. a

2. c

3. a

4. a

5. b

6. b

7. a