

## 5.0 PERSONAL PROTECTIVE EQUIPMENT

There are over 75 OSHA Standards that address the need and use for Personal Protective Equipment (PPE). While PPE use can prevent injuries and illnesses, engineering controls should be the primary methods used to eliminate or minimize hazard exposure in the workplace. When controls are not practical or applicable, personal protective equipment can be used to reduce or eliminate personnel exposure to hazards. Personal protective equipment (PPE) must be provided, used, and maintained when it has been determined that its use is required and that such use will lessen the likelihood of occupational injuries and/or illnesses.

Hazards in the workplace are a fact of life. No matter what you do, there's the need for personal protective equipment on many of the jobs you perform. Health hazards, eye hazards, noise and chemicals. whether or not you use personal protective equipment is really up to you. If you choose not to, your attitude may be the biggest hazard of all. Personal Protective equipment is one of the best ways to protect your own health and safety.

### 5.11.1 Definition

What is personal protective equipment?

Personal protective equipment, commonly referred to as "PPE", is equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses.

These injuries and illnesses may result from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. Personal protective equipment may include items such as gloves, safety glasses and shoes, earplugs or muffs, hard hats, respirators, or coveralls, vests and full body suits.

What can be done to ensure proper use of personal protective equipment?

All personal protective equipment should be safely designed and constructed and should be maintained in a clean and reliable fashion. It should fit comfortably, encouraging worker use. If the personal protective equipment does not fit properly, it can make the difference between being safely covered or dangerously exposed. When engineering, work practice, and administrative controls are not feasible or do not provide sufficient protection, employers must provide personal protective equipment to their workers and ensure its proper use. Employers are also required to train each worker required to use personal protective equipment to know:

- When it is necessary

- What kind is necessary
- How to properly put it on, adjust, wear and take it off
- The limitations of the equipment
- Proper care, maintenance, useful life, and disposal of the equipment

If PPE is to be used, a PPE program should be implemented. This program should address the hazards present; the selection, maintenance, and use of PPE; the training of employees; and monitoring of the program to ensure its ongoing effectiveness. Employees should be trained initially and annually on the use of each PPE utilized for their use.

#### 5.11.2 Personal Protective Equipment Requirement

Hazards exist in every workplace: sharp edges, falling objects, flying sparks, chemicals, noise and a host of other potentially dangerous situations. Personal protective equipment, or PPE, is equipment you wear to reduce your exposure to a variety of hazards. PPE includes such items as gloves, foot and eye protection, protective hearing devices (earplugs/muffs), hard hats, respirators and full body suits.

#### Hazard Control

Controlling a hazard at its source is the best protection method. Using engineering or work practice controls to manage or eliminate hazards is always recommended. PPE is considered the last resort of protection.

The requirement for PPE: Making sure the best possible protection in the workplace is available is a cooperative effort of both the company<sup>1</sup> and you. This will help in establishing and maintaining a safe and healthful work environment.

Both employers and employees must understand and do the following:

- To understand the types of PPE you may need at work, you should know the basics of how to conduct a hazard assessment of the workplace. This will determine the PPE you'll need for your job. Once you know this, you'll need to be trained in the proper use and care of your PPE. Damaged or defective PPE should be removed from service and discarded immediately.

- Always notify your supervisor if your PPE needs to be repaired or replaced.

## PPE Requirements

All PPE used on the job should meet all ANSI requirements, and will be kept clean and reliable. All required PPE will be provided by Amsys Energy. Fit and comfort will be considered when selecting PPE for the workplace. If your PPE fits well and is comfortable to wear, you'll be more likely to use it. Always let your supervisor know if there are problems with the fit or comfort of your PPE. PPE that doesn't fit properly can make the difference between being safely covered or dangerously exposed. If you need to wear different types of PPE or get your own protective equipment per your specific needs, make sure they're compatible with the company standard and get clearance of its use from your Field Supervisor who will be responsible to assure its adequacy. Employees are responsible for proper maintenance and sanitation of all provided and personal protective equipment.

It's your responsibility to -

- Wear the PPE issued
- Maintain, clean, and store your PPE properly

Always wear your required PPE to protect you from workplace hazards.

The Field Supervisor is responsible to complete the Job Briefing/ Routine Job Hazard Analysis [JHA] Form available in Appendix A to evaluate the work environment of the day and that all employees have proper protective equipment and understand how to wear and use PPE properly before being allowed to perform work requiring the use of the PPE for that day. The Field Supervisor will certify this evaluation with his name and date.

PPE training shall be documented, with records showing date of training, trainer name and signature, trainee name and signature. Refresher training will be conducted annually or when deficiencies are noted or new equipment is introduced.

- Inadequacies in an employee's knowledge or use of assigned PPE that indicate that the employee has not retained the understanding or skill as required must be addressed through retraining.

### 5.11.3 Head Protection

Hard Hats protect your head from low hanging or falling objects. Wear hard hats as they were intended to be worn and never make modifications to your hat, such as drilling air holes in the sides. Each hat is engineered for impacts and if you modify the hat, you could damage the hat to such a degree where the hat will not afford the designed protection. Bump caps are made of lesser quality plastic and are not engineered for falling objects or impacts. Bump caps are used in areas where there are bump hazards and not falling objects. Many food processing facilities use bump caps solely for the purpose of containing hair and not for protection from impacts of falling objects.

- Bump caps and metallic hard hats or caps are prohibited.
- Certain types of protective headgear are permitted for tower climbing and rescue operations so long as they meet the requirements of ANSI Z89.1 (2003). Climbing headgear is inadequate and may not be worn if the work does not involve climbing.
- Welders are subject to the same head protection requirements, even during welding operations.
- Hard hats are always required to be worn with the brim forward while on site, except:
  - During lunch and break periods providing no work is in progress in the immediately in the break area

When operating equipment with fully enclosed cabs.

- Hard hats shall not be altered in any way. Hard hats shall conform to ANSI Z89.1 (2003) Class G & E.

### 5.11.4 Eye Protection

Safety glasses provide eye protection from flying chips, debris and other eye hazards. Goggles protect your eyes from chemical splashes and face shields are a safeguard when worn over other protective eyewear, such as safety glasses. All personnel on the project shall wear approved protective eyewear while on site. Eyewear must meet the requirements of ANSI Z-87.1 (2003).

- Safety glasses are always required to be worn on site, except:
  - o During lunch and break periods providing no work is in progress in the immediate break area
  - o When operating equipment with fully enclosed cabs.
- Tinted lenses (including tinted prescription glasses) are prohibited inside buildings or other structures with limited illumination.

- Safety glasses must have ANSI approved side shields. (Note: ANSI approved side shields shall not be used with non-ANSI approved eyewear.)
- All grinding operations shall be performed with a full-face shield and safety glasses or goggles.
- Persons who require prescription or corrective eyeglasses shall use ANSI approved prescription safety glasses, goggles, or over-the-glass (OTG) safety glasses.
- Welders shall wear dual eye protection while welding (i.e., safety glasses worn under the welding helmet).

#### 5.11.5 Respiratory Protection

Respirators protect you against a wide variety of dust, fumes, gases, vapors and many other health hazards. One of the most misused respirators in industry is the dust mask. It's designed only for certain types of dust, but many people believe it's good for any type of hazard. A dust mask cannot be used for spray painting or other types of vapors. Each specific hazard must have the proper respirator that provides protection for that hazard. Proper fitting of respiratory equipment and the wearing of equipment as it was intended is equally important. If the hazards require employees to wear respiratory protection, The Amsys Energy Safety Manager will develop and implement a comprehensive respiratory protection program for the affected employees that, at minimum, complies with all requirements set forth by OSHA in 29 CFR 1910.134.

#### 5.11.6 Hearing Protection

Ear plugs or earmuffs can go a long way to avoid hearing loss. Adjust your muffs so they're comfortable and don't squeeze your ears. Disposable ear plugs must be clean and fitted properly. Never insert dirty ear plugs or use dirty hands when putting the plugs in your ears. If a job-related hearing hazard is extreme or prolonged and requires a form of hearing protection, the Amsys Energy Safety Manager will develop and implement a hearing conservation program in accordance with

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OSHA requirements (29 CFR 1910.95) for the affected employees. This includes the mandatory use of protective equipment when sound levels reach 90 decibels (dBa) (TWA) and implementation of other requirements associated with the 85 dBa (TWA) action level.

- Approved hearing protection shall be worn by all personnel whenever in designated areas.
- Amsys Energy Field Operations Management is responsible for establishing areas and posting signs where hearing protection may be required.

#### 5.11.7 Foot Protection

At a minimum, sturdy, leather, work boots/shoes are required. Boots and safety shoes are good personal protective equipment. Even if your job doesn't require steel toed safety shoes, leather topped shoes can provide a degree of protection from chemical splashes, petroleum products and small cuts, bruises and abrasions. Your shoes should be in good condition and the soles of the shoes should be slip resistant. Keep your footwear in good condition and always clean off your shoes before climbing ladders or getting into vehicles. Grease or slippery shoes can create accidents. In addition, the following requirements shall apply where applicable:

- Steel toe shoes that comply with ANSI Z-41.1 are required when working with jackhammers and pavement breakers, or for other tasks as deemed necessary based on the task/job assessment.
- Additional foot protection, such as shin protection, metatarsal guards, etc. shall be worn whenever the job being performed creates additional hazards and possible injury of the foot or lower leg/ankle.

#### 5.11.8 Hand Protection

All personnel engaged in work shall wear gloves appropriate for the scope. Appropriate work gloves shall be worn whenever personnel are performing work where their hands and/or fingers might be cut or punctured by the material being handled. Gloves protect your hands from chemicals, rough or sharp parts and a wide range of skin protection. Keep in mind that there are literally hundreds of different types of gloves, each designed for a specific purpose, so select the proper glove for the job. Specifically:

- Appropriate work gloves shall be worn when working on or at any telecommunication work site.
- All personnel engaged in wire or coaxial cable cutting, stripping, or grounding installation shall wear leather or cut resistant gloves such as Kevlar work gloves.
- Leather gloves are required for work on 12-50-volt electrical systems.
- Insulated gloves are required for energy isolation work and when in the proximity of 51-240-volt energized systems (refer to NFPA Standard 70E).
- Work gloves shall not be required when work activities require the ability to complete detailed work with the fingers, such as terminating wiring. Generally, work gloves should not be worn when operating rotating tools or equipment, such as a conduit threader, drill press, or other rotating machinery.
- Work gloves shall be promptly replaced when they become damaged (e.g., holes and/or tears).

#### 5.11.9 Dress Requirements

All personnel are required to wear clothing appropriate for the work being performed. Long pants to the ankle free of rips and holes, shirts with sleeves, and sturdy, leather, work shoes/boots are required. Chemical clothing and encapsulating suits are used when there are vapor, gas and other airborne

hazards. When you're engaged in this type of work, more training is necessary, to make sure you understand what protection is offered and how to specifically use, handle and store the equipment. When we talk about personal protective equipment, the basic equipment just described comes to mind, but in a work environment, you must consider many other safety devices that could be lumped together with personal protective equipment.

- Extra caution must be used when working near moving machinery to prevent clothing and body parts from being caught by moving components.
- Clothing soaked with grease, paint, thinners, solvents, fuels, or similar materials shall not be worn.

#### 5.11.10 Training

Make sure you know how to use and maintain the PPE you're required to wear. Whether you're wearing hardhats or fully encapsulating suits, you need to understand how your PPE protects you and when it won't. Training includes the type of PPE necessary and when it must be worn, proper care of your PPE, how to put on, adjust, wear, and remove PPE; when to replace worn-out PPE, and; how to dispose of contaminated PPE.

OSHA requires companies to assess the workplace to determine if hazards are present or likely to be present that require you to PPE. You, in turn, must follow the safety rules and procedures in place and wear all appropriate PPE. In a hazardous environment or operation, the right application and use of PPE will reduce injuries or exposure in the workplace. Follow these industrial safety tips for PPE use.