

Personal Protective Equipment Leader's Guide

Hazard Assessment

In OSHA's personal protective equipment (PPE) regulation, a hazard assessment is the first step to understanding which PPE your employees need in each workplace situation at your facility.

Observations must be made while employees are performing job duties in each work area of the facility. Note if there may be hazards to:

- head
- eyes and face
- hands
- feet

Note whether the hazards fall into these basic hazard categories:

- Impact
- Penetration
- Compression (roll-over)
- Chemical
- Heat
- Harmful dust
- Light (optical) radiation

Hearing and respiratory hazards will be addressed in separate training modules.

An estimate for potential injuries should be made. A review of gathered observations should determine the type, level of risk, and seriousness of potential injury from each of the hazards found in the area. There may be exposures to several types of hazards simultaneously.

Rate each hazard as to how serious each basic hazard is for each body part in each work area:

- Highly serious
- Serious
- Somewhat serious
- Slightly serious
- Rarely serious
- No hazard or N/A

Before selecting PPE for the determined hazards, consider what engineering controls or administrative controls can be put into place to eliminate the hazard thus eliminating the need for PPE for each work situation.

When engineering controls won't apply or may be too costly, then it is time to select the appropriate PPE to protect employees from the determined hazards. Understand what PPE is available to best protect employees from these determined hazards.

After determining which PPE must be worn in what work areas. Wearing the PPE must be made a company policy and the policy must be ENFORCED. If management doesn't back it up with enforcement, it won't last. So, PPE must fit and be comfortable. Take into consideration temperature extremes, various employee sizes, and allergic reactions to some materials.

Head

OSHA says the employer shall ensure that each employee will wear a protective helmet when working in areas where there is a potential for injury to the head from falling objects. It also states that employees who may come in contact with electrical conductors must wear a protective helmet designed to reduce electrical shock hazards. PPE for the head will vary depending upon the hazards. Types of protections for the head would include:

- Hard hat
- Bump cap
- Electrical conductive helmet
- Pith helmet

Make sure to consider accessories for special conditions such as cooling agents for warm working conditions, knit ear and neck warmers for cold working conditions, glow-in-the-dark helmets for darker conditions.

Hands

OSHA says that employers must select and require employees to use appropriate hand protection when exposed to hazards such as harmful substances; severe cuts or lacerations; severe abrasions; punctures; vibration and impact; chemical burns; thermal burns; and harmful temperature extremes. Gloves will vary depending upon the hazards involved. Different types of glove material may be:

- General cuts, and abrasions – leather, canvas, cotton
- Harmful substances - rubber, PVC, neoprene, nitrile (depends on the substance and what glove material the substance won't permeate)
- Punctures, Cut resistant – mesh, Kevlar®
- Welding – welder's heat resistant gloves
- Electrical – lineman's gloves
- Cold environments – insulated gloves
- Vibration – padded, gel, cushioned gloves

Take into consideration employee allergies. Some people are allergic to different types of rubber and plastics, and even leathers. Glove liners may be necessary. Don't forget weather extremes.

Feet

OSHA says the employer will ensure that employees use protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where such employee's feet are exposed to electrical hazards. The different types of protective shoes and boots may be:

- Steel Toe Shoes/Boots – for working conditions that may involve toe impact
- Plain toe work shoes/boots
- Overboots/rubbers – for wet conditions, water, or other liquid substances
- Grips, spikes, and chains for icy conditions
- Foot guards – for tops of shoes/boots
- Puncture resistant soles – for when puncture hazards exist
- Knee and shin guards – for protection from cuts and punctures
- Linemen Boots – for electrical work

Some of the above shoes and boots may be purchased in combination, such as steel-toe rubber boots, steel toe shoes with built in foot guards, some of the above also have puncture resistant or slip resistant soles.

Eyes and Face

OSHA says the employer will ensure that employees use appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. In addition, eye protection must give sufficient side protection when there are flying object hazards. An employee's prescription lenses must be incorporated into the eye protection. Common eye protection may include:

- Goggles – provide the best side protection – vented and non-vented
- Safety glasses – most have side protection
- Laser glasses – for laser work
- Prescription safety glasses – for when contacts don't work or not allowed
- Visitor specs – extras for visitors
- Face Shields – to protect the entire face and neck from splashes
- Welding helmets/lenses – different lens darkness for different types of welding

There are endless selections of styles and brands for optimum comfort and helps ensure that employees wear the eye protection.

If you determine that PPE is required for a certain work area or the entire workplace, it must be mandatory. Make it company policy and management must. Depending on your workforce, enforcement with disciplinary action may be necessary or rewards for compliance may be the key.