

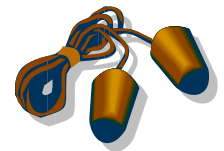
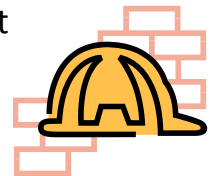
# Everyone Goes Home “SAFE”!

## Personal Protective Equipment Selection (PPE)

Our first line of defense of protecting employees from hazards should always be engineering and administrative controls to remove or limit the degree of a hazard. However where a combination of these two methods is not sufficient, PPE should be our last resort. The selection of appropriate protective gear is based on the anticipated hazards of a job, which means you have to know the work scope and work area in detail. If you are selecting PPE without visiting the job site, you're starting off on the wrong foot. In addition to basic PPE, (hardhat, safety glasses, goggles, FRC coveralls or pants/shirt, gloves and safety shoes) specialized PPE such as respirators may be required. Please refer to your company guideline for details on PPE requirements.

### Examples of Basic PPE Requirements

- **Head Protection:** The hardhat is the most basic piece of safety equipment used in industry. It must meet ANSI Z89.1 specifications for protection of the head from impact and penetration from falling/flying objects and from limited electric shock and burn hazards.
- **Eye Protection:** Safety glasses with rigid side shields must meet ANSI Z87.1 guidelines. Also, splash goggles must be worn on the hardhat and used for entry inside areas with acids & caustics.
- **Hearing Protection:** Ear plugs or muffs are required inside process areas and other areas when high noise equipment is in use. Extremely high noise areas (>110 decibels) requires the use of the combination of ear plugs and muffs, better known as double hearing protection required.
- **Foot Protection:** Footwear worn during entry inside plant areas must meet ANSI Z41. Foot protection against liquid hazards such as chemicals requires a boot made of neoprene, PVC, butyl rubber or some other chemical resistant material.
- **Hand Protection:** The hands are the most injury prone part of your body and must be protected during all work, accounting for as much as 35% of injuries. Don't think a pair of leather gloves is the right type either. Many lacerations have resulted because someone mistakenly thought leather was cut resistant. Leather is good for general wear without chemical or cut hazards. Gloves must resist puncturing and tearing as well as provide the necessary chemical resistance as needed for the task.



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- a. Leather gloves should be worn when performing general work such as using tools and equipment. If they become contaminated, they should be discarded.
- b. Chemical protective gloves should be worn when working with chemicals that damage the skin, such as corrosives, hydrocarbons, and toxics. If the work is considered heavy work an outer glove may be required so that the chemical glove won't get punctured.
- c. When selecting gloves consider thickness and cuff length. The thicker and longer the glove the greater the protection. However, the material should not be so thick that it interferes with the necessary dexterity.
- **Body Protection:** Clothing to protect the body against hazardous liquids, gases, vapors and fire is available in a variety of styles and materials. The selection of appropriate protective clothing is based on the hazards anticipated or recognized. Protective clothing protects primarily because of the material from which it is made.
  - a. **Chemical resistance** – When clothing contacts a hazardous material, it must maintain its structural integrity and protective qualities.
  - b. **Strength** – Strength is base on resistance to tears, punctures, and abrasions as well as tensile strength.
  - c. **Flexibility** – Clothing easy to move in and work in.
  - d. **Thermal limits** – Affects the ability of clothing to maintain its protective capacity in temperature extremes. Along with the transfer of cold or heat to the wearer.
  - e. **Lifespan** – The ability to resist aging in server working conditions.

