

PROTECT YOURSELF WITH PERSONAL PROTECTIVE EQUIPMENT

29 CFR 1910.132 - .138

\Hard hats, goggles, face shields, earplugs, steel-toed shoes, respirators. What do all these items have in common? They are all various forms of personal protective equipment, designed to protect workers from injury and illness.

Yet, data from the Bureau of Labor Statistics show:

- Hard hats were worn by only 16% of those workers who sustained head injuries, although two-fifths were required to wear them for certain tasks at specific locations;
- Only 1% of approximately 770 workers suffering face injuries were wearing face protection;
- Only 23% of the workers with foot injuries wore safety shoes or boots; and
- About 40% of the workers with eye injuries wore eye protective equipment.

A majority of these workers were injured while performing their normal jobs at regular worksites.

OSHA standards require employers to furnish, and require employees to use, suitable protective equipment where there is a "reasonable probability" that injury can be prevented by such equipment. The standards also set provisions for specific equipment.

While use of personal protective equipment is important, it is only a supplementary form of protection, necessary where all hazards have not been controlled through other means such as engineering controls. Engineering controls are especially important in hearing and respiratory protection, which have specific standards calling for employers to take all feasible steps to control the hazards.

Recently, OSHA has adopted new standards that address the various types of personal protective equipment:

General Requirements: 1910.132

Every employer is required to perform a hazard assessment of the workplace to



determine if there are any hazards present, or if there is the possibility for a hazard to be present which would necessitate the use of personal protective equipment. The employer must keep a written record of the hazard assessment to verify that it was conducted. This record must include the identity of the workplace evaluated, the person certifying the evaluation, and the date of the evaluation.

If hazards are present, the employer must:

- Select and require the use of the necessary personal protective equipment that will protect the affected employees from the hazards;
- Explain to each affected employee the selection decision for the personal protective equipment; and,
- Select equipment that properly fits each affected employee.

If equipment is necessary, the employer must provide training to ensure that each affected employee knows the following:

- When personal protective equipment is necessary;
- What personal protective equipment is necessary;
- How to properly put on, take off, adjust and wear the necessary equipment;
- The limitations of the personal protective equipment; and,
- The proper care, maintenance, useful life and disposal of the equipment.

Employees must be retrained if the workplace changes such that different equipment is needed or old equipment is no longer needed, and if the employer believes that an employee does not have the necessary understanding of the above requirements. The employer must keep a record of all training of affected employees to verify that the training was conducted. This record must contain the name of each employee trained, the date(s) of the training and the subject of the training.

All personal protective equipment must be of safe design and construction for the work that will be performed. Any damaged or defective equipment must not be used. If the employees own their own equipment, the employer must assure that it is adequate, properly maintained and sanitary.

Eye and Face Protection: 1910.133

Injured workers surveyed indicated that eye and face protection normally was not used or



practiced in their work areas, or it was not required for the type of work performed at the time of the accident.

Almost one third of face injuries were caused by metal objects, most often blunt and weighing one pound or more. Accidents resulted in cuts, lacerations, or punctures in 48% of the total, and fractures (including broken or lost teeth) in 27%.

Protection should be based on the kind and degree of hazard present and should be: 1) reasonably comfortable, 2) of proper fit, 3) durable, 4) cleanable, 5) sanitary, and 6) in good condition.

Eye and face protection should comply with ANSI "USA Standard for Occupational and Educational Eye and Face Protection", Z87.1-1968, if the equipment was purchased before July 5, 1994. If the equipment was purchased after July 5, 1994, it must comply with ANSI Z87.1-1989, "American National Standard Practice for Occupational and Educational Eye and Face Protection". To determine if the equipment complies with either of these standards look for the appropriate Z-number stamped on the equipment or printed on the box.

Respiratory Protection: 1910.134

Information on the requirements for respirators to control occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays and vapors is available in 29 CFR 1910.134. Proper selection of respirators is crucial.

Head Protection: 1910.135

Cuts or bruises to the scalp and forehead occurred in 85% of the cases, concussions in 26%. Over a third of the cases resulted from falling objects striking the head.

Employees working in areas where there is a potential for injury from falling objects should wear protective helmets. Protective helmets for head protection against impact blows must be able to withstand penetration and absorb the shock of a blow. In some cases hats should also protect against electric shock.

Head protection should comply with ANSI "American National Standard Safety Requirements for Industrial Head Protection", Z89.1-1969, if the equipment was purchased before July 5, 1994. If the equipment was purchased after July 5, 1994, it must comply with ANSI Z89.1-1986, "American National Standard for Personnel Assurance Protection – Protective Headwear for Industrial Workers-Requirements". To determine if the equipment complies with either of these standards look for the appropriate Z-number stamped on the equipment or printed on the box.

Foot Protection: 1910.136

Sixty-six percent of injured workers were wearing safety shoes, protective footwear, heavy-duty shoes or boots, and 33% were wearing regular street shoes. Of those wearing safety shoes, 85% were injured because the object hit an unprotected part of the shoe or boot.

For protection against falling or rolling objects, sharp objects, molten metal, hot surfaces, electrical hazards, and wet, slippery surfaces, workers should use appropriate footguards, safety



shoes or boots and leggings. Safety shoes should be sturdy and have an impact resistant toe.

Foot protection should comply with ANSI "USA Standard for Men's Safety-Toe Footwear", Z41.1-1967, if the equipment was purchased before July 5, 1994. If the equipment was purchased after July 5, 1994, it must comply with ANSI Z41.1-1991, "American National Standard for Personnel Protection – Protective Footwear". To determine if the equipment complies with either of these standards look for the appropriate Z-number stamped on the equipment or printed on the box.

Hand Protection: 1910.138

Burns, cuts, electrical shock, amputation and absorption of chemicals are examples of hazards associated with arm and hand injuries. A wide assortment of gloves, hand pads, sleeves and wristlets is available for protection from these hazards.

The personal protective equipment should be selected to fit the specific task. Decisions should be based upon the evaluation of the equipment's performance characteristics relative to the task(s) to be performed, conditions present, duration of use, and the hazards or potential hazards identified during the assessment.

Ear Protection: 1910.95

Exposure to high noise levels can cause irreversible hearing loss or impairment. It can also create physical and psychological stress.

Preformed or molded earplugs should be individually fitted by a professional. Waxed cotton, foam or fiberglass wool earplugs are self-forming. Disposable earplugs should be used once and thrown away; non-disposable ones should be cleaned after each use for proper maintenance.

OSHA has a standard detailing the requirements for a hearing conservation program. Information on the program is available from the IBT Safety and Health Department and the OSHA office nearest you.

REMEMBER!!!!

Using personal protective equipment requires hazard awareness and training on the part of the user. Employees must be aware that the equipment alone does not eliminate the hazard. *If the equipment fails, exposure will occur.*

