

HARD HATS IN THE WORKPLACE

Protecting employees from potential head injuries is a key element of any safety program. A head injury can impair an employee for life or can be fatal. Wearing a hard hat is one of the easiest ways to protect an employee's head from injury. Hard hats can protect employees from impact and penetration hazards as well as from electrical shock and burn hazards. Employers must ensure that their employees wear head protection if objects might fall from above and strike them on the head; if they might bump their heads against fixed objects, such as exposed pipes or beams; or if there is a possibility of accidental head contact with electrical hazards. Some occupations in which employees should be wear head protection include construction employees, carpenters, electricians, linemen, plumbers and pipefitters, timber and log cutters, and welders, among many others. In general, whenever there is a danger of objects falling from above, such as working below others who are using tools or working under a conveyor belt, head protection must be worn. Hard hats must meet American National Standards Institute (ANSI) Standard Z89.1, Protective Headgear for Industrial Workers. In addition, OSHA's Personal Protective Equipment standards for general industry, construction and maritime require employers to provide hard hats at no cost to employees where OSHA standards require their use.

The revised ANSI Z89.1-1997 standard contained a new classification system for protective helmets. The old designations, Type 1 (hats) and Type 2 (caps), are no longer used. The electrical insulation classifications of Class G (General), Class E (Electrical), and Class C (Conductive - no electrical protection) replace the former Classes A, B, and C, respectively, to make the designations more user-friendly. NOTE: OSHA is in the process of updating its incorporated reference to recognize not only the 1997 edition of the ANSI standard, but also the 2003 edition that uses the new classification system.

- **Class G (General) hard hats** provide impact and penetration resistance along with limited voltage protection (up to 2,200 volts).
- **Class E (Electrical) hard hats** provide the highest level of protection against electrical hazards, with high-voltage shock and burn protection (up to 20,000 volts). They also provide protection from impact and penetration hazards caused by flying or falling objects.
- **Class C (Conductive) hard hats** provide lightweight comfort and impact protection, but offer no protection from electrical hazards.

It is essential for supervisors to check the type of head protection employees are using to ensure that the equipment provides appropriate protection. A quick check of the label inside the shell identifies the manufacturer, ANSI designation, and class of hard hat.

OSHA's booklet on Personal Protective Equipment is a good resource offering more information on the proper use of hard hats and other personal protective equipment so that employers and employees can prevent injuries. The booklet is available at the following site:

<http://www.osha.gov/Publications/osha3151.pdf>).

Contact the Environmental Health, Safety, and Emergency Management Department at 4008 if you have questions or need additional information concerning hard hats or other personal protective equipment.