

SECTION H - PERSONAL PROTECTIVE EQUIPMENT (PPE)

This section addresses the hazards that can exist in a workplace environment, such as: Sharp edges, falling objects, flying sparks, chemicals, noise and other potentially dangerous situations. Personal Protective Equipment (PPE) by defined as equipment worn to minimize exposure to a variety of hazards. Examples can be hard hats, gloves, eye and foot protection, respirators, appropriate hearing protection and even full body suits.

If special clothing, safety equipment, or uniforms are required for the conduct of your job, the City either will provide them or will share the cost of obtaining the items needed. Your supervisor can provide information about these requirements and about the City's share of the cost. If provided by the City, items must be used only for municipal purposes.

A. The **department head** and/or **supervisor** should be responsible for:

1. Performing a "hazard assessment" of the work place to identify and control physical and health hazards. Use the *Personal Protective Equipment Hazard Assessment* [Appendix I, Form 10].
 - a) After the hazard assessment is complete, the employer should research the types of PPE available significant to the specific type of hazard. Taking the fit and comfort of PPE into consideration should be of concern, as employees will be more apt to wear the PPE if it fits and is comfortable.
2. Identifying and providing appropriate PPE for employees.
3. Training employees in the use and care of the PPE.
4. Maintaining PPE, including replacing worn or damaged PPE.
5. Periodically reviewing, updating and evaluating the effectiveness of the PPE program.

B. Coinciding with the above mentioned, **employees** generally should:

1. Properly wear PPE.
2. Attend training sessions on PPE.
3. Care for, clean, and maintain PPE.
4. Inform a supervisor of the need to repair or replace PPE.

Types of PPE

A. Eye Protection. Examples of potential injuries to the face or eye include:

1. Dust, dirt, metal or wood chips entering the eye from activities such as chipping, grinding, sawing, hammering, the use of power tools or even strong wind.
2. Chemical splashes from corrosive substances, hot liquids, or other hazardous solutions.
3. Objects swinging into the eye or face, such as tree limbs, chains, tools, or ropes.
4. Radiant energy from welding.

Types of PPE: Safety spectacles, goggles, welding shields, laser safety goggles, face shields.

B. Head Protection. Head injuries can be fatal or impair an employee for life. Examples of potential injuries include:

1. Objects falling from above.
2. Bumping up against a fixed object.
3. Any possibility of accidental head contact with electrical hazards.

Types of Hard Hats (3 Classes):

- a) Provide impact and penetration resistance along with limited voltage protection (up to 2,200 volts).
- b) 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 by flying/falling objects.
- c) Provide lightweight comfort and impact but offer no protection from electrical hazards.

C. Foot and Leg Protection. Examples of potential injuries include:

1. Rolling objects, such as barrels or tools.
2. Sharp piercing objects such as spikes or nails.
3. Any exposure of molten metal with the potential of splashing.
4. Working on hot, wet or slippery surfaces.

5. Working when electrical hazards are present.

Types of PPE: Leggings, Metatarsal guards, toe guards, combination foot and shin guards, safety shoes, electrically conductive shoes, electrical hazard, safety-toe shoes, foundry shoes.

D. Hand and Arm Protection. Examples of potential injuries include:

1. Skin absorption of harmful substances.
2. Chemical or thermal burns.
3. Electrical dangers.
4. Bruises.
5. Abrasions.
6. Cuts.
7. Punctures.
8. Fractures.
9. Amputations.

Types of PPE: There are many types, and it all depends on the nature of the hazard and the operation involved. There is a wide variety and selection available so, after assessing the hazard, the proper glove should be selected specific to the hazard being addressed. Once acquired, PPE should be distributed to the precise work locations for immediate use.

E. Body Protection. In addition to cuts and radiation, examples of potential injuries include:

1. Temperature extremes.
2. Molten metal and hot liquid splashes.
3. Potential impacts from tools, machinery and materials.
4. Hazardous chemicals.

F. Hearing Protection. The proper use of hearing protection is a challenging process, as employee exposure depends on several factors, including:

1. Loudness of noise, measured in decibels (dB).
2. Duration of exposure to noise.
3. Movement between work areas with ranging noise levels.
4. Multiple noises from one or more sources.

Types of PPE: Single-use ear plugs, pre-formed or molded earplugs, earmuffs.

- a) If employees are exposed to occupational noise at or above 85 dB averaged over an eight-hour period, a hearing conservation program that includes regular testing of employees' hearing by qualified professionals is required.

G. Respiratory Protection. Examples of potential injuries include:

1. Toxic, carcinogenic, or irritant vapors.
2. Gases.
3. Dusts.
4. Mists.
5. Fumes.
6. Fibers.



Types of PPE: Face masks, supplied air hoods, air-purifying respirators.

