PERSONAL PROTECTIVE EQUIPMENT (PPE)

The City's goal is to minimize injury resulting from various occupational hazards present at job sites by protecting workers through the use of protective clothing and equipment, or personal protective equipment (PPE), when the hazards cannot be eliminated. The Department Head will designate appropriate supervisors to assist in training employees and monitoring their use of PPE. Supervisors will review and update the program as necessary. Any employee encountering hazardous conditions should report potential hazards. PPE protects individuals from chemical, physical, biological or other hazards.

Wearing approved PPE such as hard hats, safety belts, safety goggles, traffic vests, face shields, gloves, aprons, toe guards, respirators, etc. acts as a guard on the worker. Supervisors should make every reasonable effort to select PPE that is acceptable for comfort, appearance, and utility, and still afford protection.

Purpose of Program

The purpose of the PPE Program is to identify hazards which require the use of PPE and the proper type of equipment to be used. This program has been developed to comply with the IDOL 29 CFR 1910.132, .133, .135, .136, and .138 PPE Standards. This program does not cover respiratory protection (1910.134) or hearing protection (1910.5) program requirements.

Two basic objectives of PPE should be to protect the wearer from incorrect use and/or malfunction. PPE devices are not to be relied on as the only means to provide protection against hazards, but are used in conjunction with guards, engineering controls, and sound practices. If possible, hazards will be abated first through engineering controls, then with PPE to provide protection against hazards that cannot be abated.

Scope

This program applies to all employees who are required to use PPE. However, additional or alternative PPE requirements may exist for specific positions or job related tasks. Please refer to Department policy or procedures for specific job related PPE guidance. Employees should check with their immediate supervisor for questions related to PPE.

Responsibilities

A. Safety Coordinator (each Department Head should designate an appropriate person as the "Safety Coordinator". As an example, the Safety Coordinator could be the Department Head, a Supervisor, or a current member of the City's Safety Committee)
    1. The designated Safety Coordinator will assist Supervisors or Department Heads in identifying and evaluating what type(s) of PPE is required for job tasks in the work area, (see Appendix 1 Personal Protective Equipment Hazard Review). This should be evaluated annually and updated when new job tasks or equipment are introduced into the work area.
    2. The designated Safety Coordinator will assist Supervisors or Department Heads in acquiring the PPE required.
    3. The designated Safety Coordinator will assist Supervisors or Department Heads in training all employees on the proper use and limitations of PPE on an annual basis and when new job tasks or new equipment are introduced into the work area.
    4. The designated Safety Coordinator will ensure that employees use PPE when performing job tasks which require its use.

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B. Supervisors/Department Heads
    1. Assist the Safety Coordinator in identifying and evaluating what type(s) of PPE is required for job tasks in the work area, (see Appendix 1.0). This should be evaluated annually and updated when new job tasks or new equipment are introduced into the work area.
    2. Acquire the proper PPE.
    3. Train all employees on the proper use and limitations of the PPE on an annual basis and when new job tasks or new products are introduced into the work area.
    4. Ensure that employees use PPE when performing job tasks which require its use.

C. Employees
    1. Be knowledgeable of the specific PPE that is available and what type of PPE is required for each job task being performed.
    2. Be knowledgeable of the proper use and limitations of PPE.

Hazard Assessment

In order to assess the need for PPE the following steps are taken:

1. The Supervisor should identify positions where exposures could occur. The Supervisor may examine injury/illness records and first-aid logs to identify and rank jobs according to exposure hazards.
2. The Supervisor may conduct a walk through survey of workplace areas where hazards exist to identify sources of hazards. The basic hazard categories considered are impact, heat, penetration, harmful dust, compression (roll over), light (optical) radiation, biological and chemical.

The Supervisor should evaluate and record the following hazards along with PPE currently in use:

1. Sources of motion (i.e., machinery or processes where any movement of tools, machine elements or particles could exist, or movement of personnel that could result in collision with stationary objects.
2. Sources of high temperatures that could result in burns, eye injury or ignition of protective equipment, etc. (i.e., welding operations).
3. Types of chemical exposures (i.e., inhalation, absorption, ingestion).
4. Sources of harmful dust near cutting and sanding operations.
5. Sources of light radiation (i.e., welding, brazing, cutting, furnaces, heat treating or high-intensity lights)
6. Sources of falling objects or potential for dropping objects.
7. Sources of sharp objects that might pierce the feet or cut the hands.
8. Sources of rolling or pinching objects that could crush the feet.
9. Layout of workplace and location of co-workers.
10. Sources of electrical hazards.

This collection of information is used to analyze the hazards and enable proper selection of protective equipment. An estimate of the potential for injuries can be made. Each of the basic hazards is reviewed and a determination made as to the frequency, type, level of risk, and seriousness of potential injury from each of the hazards found. The existences of any situations where multiple exposures occur or could occur are considered.

Selection Guidelines

Once any hazards have been identified and evaluated, the procedure for selecting protective equipment is to:

1. Become familiar with the potential hazards and the type of PPE that are available, and what they can do.
2. Compare types of equipment to the hazards associated with the environment.
3. Select the PPE that ensures a level of protection greater than the minimum required to protect employees from the hazards.
4. Fit the user with proper, comfortable, well-fitting protection and instruct employees on care and use of the PPE. It is very important that the users are aware of all warning labels for and limitations of their PPE.

It is the responsibility of the Supervisor to reassess the workplace hazard situation as necessary to identify and evaluate new equipment and processes, to review accident records, and re-evaluate the suitability of previously selected PPE. This reassessment will take place as needed, but is recommended at least annually or when new tools or equipment requires re-training. Elements that should be considered in the reassessment include:

- Adequacy of PPE
- Accidents and illness experience
- Levels of exposure (this implies appropriate exposure monitoring)
- Adequacy of equipment selection
- Number of person hours that workers wear various protective ensembles
- Adequacy of training/fitting of PPE
- Program costs
- Adequacy of program records
- Recommendation for program improvement and modification
- Coordination with overall safety and health program

Training

The Supervisors or Department Heads are responsible for training all employees on the use and limitations of the PPE that the employees will be required to use. The training will be divided into two parts, general and specific training.

A. General Training
   All employees will receive a general overview of the requirements for the use of PPE. The training should include the following:

   1. When the use of PPE is necessary.
   2. What type of PPE is required to be used throughout the facility or for specific job tasks.
   3. How to properly use and maintain the PPE.

B. Specific Training
   When an employee is required to perform a non-routine job requiring the use of PPE that has not been covered in the general training, the employee will receive specific training. This training will cover the proper use and limitations of the PPE that is going to be used.

All training must be documented on a training log like or similar to (Appendix 2), and kept within the employee's training record file. The documentation must include the employee's name and signature, department, training date, signature of instructor, and an outline of what was presented.

Cleaning and Maintenance

It is important that all PPE be kept clean and properly maintained by employees. Cleaning is particularly important for eye and face protection because dirty or fogged lenses could impair vision. PPE is to be inspected, cleaned and maintained by employees at regular intervals as part of their normal job duties so that the PPE provides the requisite protection. Supervisors are responsible for ensuring compliance with cleaning responsibilities by employees. If PPE is for general use, the Supervisor has responsibility for designating or assigning cleaning and maintenance duties. If a piece of PPE is in need of repair or replacement, it is the responsibility of the employee to bring it to the immediate attention of a Supervisor. It is prohibited to use PPE that is in disrepair or inadequate for its intended function. Contaminated PPE that cannot be decontaminated is to be disposed of.

PPE Specific Information

Head Protection

Many activities performed by City employees involve working above or below ground levels, movement of material overhead or working near construction machinery. In such operations, the hazards of being struck by falling objects, machinery or loads being moved by machinery constantly exist. Hard hats are provided to prevent head injuries. The proper protection is provided when the head harness is adjusted so that there is approximately 1½-inch clearance, plus or minus 1/8-inch, between the skull and the inside of the hat when it is worn. When the harness becomes worn to the extent that it can't be adjusted to maintain that clearance, hard hats should be turned in to the Supervisor. The construction and shape of hard hats should not be altered in any manner by the employees. Metal hard hats are not permissible.

Face and Eye Protection

Hazards involving the possibility of injuries to the face and eyes exist in both indoor and outdoor tasks. Risks range from dust blown into eyes to particles of steel, sand or concrete being propelled into eyes with considerable force by power tools and machinery to splashes of corrosive dust and liquid chemicals.

There are many types of safety glasses, goggles and shields made of glass or plastic to protect workers from these hazards. Face and eye protection is provided by the City for any task where there is any probability that an injury may occur without such protection. It is the employee and Supervisor's responsibility to make certain that glasses and/or goggles are worn. Employees assigned to perform tasks that require eye protection shall wear the protector provided. Care is exercised to maintain glasses/goggles properly; dirty or scratched lenses may provide another hazard from reduced visibility. Safety glasses shall be inspected and replaced on a regular basis. Visually inspect before use and replace immediately if defects are noted.

1. A full plastic face shield must be worn when handling acids, caustics and other harmful dusts, liquids or gases.
2. Spectacle-type safety glasses must be worn when performing electrical switching operations or activating high voltage circuits where arcs may occur.
3. A face shield with the proper filter lens, or welder's lens, or welder's goggles, should be worn in all welding and cutting operations.
4. A full plastic face shield should be worn when grinding stumps.

Electric Arc Welding

1. A welder's helmet with proper filter lenses must be worn.
2. Portable welding screens must be used to protect the eyes of others in the vicinity whenever potential exposure exists.
3. Helpers and observers must wear safety glasses, goggles or hand-held shields with proper filter lenses.

Gas Welding and Cutting

1. Welder's goggles with proper filter lenses must be worn.
2. Persons in welding or cutting area should not look at immediate working area.

Eye protection may be required on other jobs not listed, if so designated at the time by a Supervisor or where an employee is subject to any of the risks listed above. Employees are encouraged to wear eye protection at all times.

Skin Protection

Employees should observe the following to prevent skin cancer.

1. Apply sun-block to exposed areas. Some areas may need an additional application because of excessive sweating.
2. Wear wide brimmed hats.
3. The most intense ultraviolet exposure is around the summer solstice (June 21) and from 10:00 a.m. to 3:00 p.m.
4. Even on overcast days 70 – 80% of the sun's ultraviolet rays penetrate the cloud cover.
5. Have a doctor examine any white scaly patches on the skin.
6. Avoid the use of baby oils, coconut oil or material to promote quick tanning.

Skin irritations should be prevented by washing with soap and water. Learn to recognize poison ivy and poison oak and avoid them. Rubber gloves should be worn when handling irritating materials.

Hearing Protection

There are some machines or equipment that may produce sound levels in the frequencies that cause hearing loss. When employees are subjected to excessive sound levels, attempts should be made to use engineering controls. If the sound level cannot be reduced to a tolerable range, then hearing protection shall be provided and must be worn by employees. As a general rule, hearing protection is required when it is difficult for two workers to hear each other standing at a distance of one foot apart.

If an employee has a noise exposure that equals or exceeds an 8-hour TWA (Time Weighted Average) of 85 dBA (decibel above reference noise) or above, a hearing conservation program that includes annual audiometer exams in addition to a written program is mandatory. If the 8-hour TWA is 90 dBA or above, the employee must wear hearing protection.

Ear protection may consist of earmuffs, earplugs or disposable materials. The type most acceptable to employees shall be provided whenever possible, so long as it achieves sufficient reduction of noise exposure. Cotton will not be used as ear plugs. Employees may choose from a variety of ear protection devices when hearing protection is required. A noise survey may need to be conducted to determine noise levels in environments with higher noise levels.

Foot Protection

Many tasks involve manual lifting or handling of heavy tools and materials. Foot injuries frequently occur when heavy objects are dropped, resulting in bruises, dislocations, fractures or crushes. Safety-toed shoes (e.g., steel, alloy or non-metallic toe caps) shall be worn by City employees, when appropriate, as determined by the Supervisor, or if available, determined by the Job Safety Analysis. Soft-soled shoes or sandals do not afford protection from puncture wounds while completing tasks that involve manual lifting or handling of heavy tools and materials, and should not be worn on the job by employees who regularly perform these types of tasks. Employees are responsible for keeping their footwear in good repair.

Hand Protection

Gloves should be worn when handling rough-edged or abrasive material or when the work subjects hands to possible lacerations, puncturing or burns. Other hand protection may be designated by a Supervisor. Rubberized gloves should be worn when handling irritating materials.

Audit

On an annual basis the facility's PPE Program must be audited by the Safety Coordinator and/or Department Head. The audit will determine if the facility is adhering to this written program, as well as the required PPE Standards. This documentation must be maintained by the Safety Coordinator, Department Head, and Safety Committee indefinitely.

PERSONAL PROTECTIVE EQUIPMENT HAZARD REVIEW

DATE OF REVIEW: _____

NAME OF REVIEWER: _____

LOCATION PERSONNEL INVOLVED IN REVIEW: _____

List Job Tasks or Work Areas Observed:

- _____
- _____
- _____
- _____
- _____
- _____

NO OTHER JOB TASKS OR WORK AREAS WERE OBSERVED

PERSONAL PROTECTIVE EQUIPMENT REVIEW (APPENDIX 1.0)

JOB TASK OR WORK AREA DATE _____

ITEM									
EYE AND FACE PROTECTION	**YES**	**NO**	**HAZARD SOURCE[1]**	**HAZARD SEVERITY[2]**	**HAZARD PROBABILITY[2]**	**HAZARD INDEX[2]**	**FREQUENCY[3]**	**APPROPRIATE PPE**	**COMMENTS**
Employees are exposed to flying particles, molten metal, liquid chemicals, acids, caustic liquids, chemical gases or vapors, or potentially harmful light radiation.									
HEAD PROTECTION									
The employee works in an area where there is a potential for injury to the head from a falling object.									
The employee works in an area near exposed electrical conductors which could contact the head.									
The employee works in an area where a caught on hazard exists for hair.									
FOOT PROTECTION									
The employee works in an area where there is potential exposure to foot injury due to falling or rolling objects.									
The employee works in an area where there is potential exposure to foot injury due to an object piercing the sole of the shoe.									

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PERSONAL PROTECTIVE EQUIPMENT REVIEW (APPENDIX 1.0)

JOB TASK OR WORK AREA DATE _____

ITEM	YES	NO	HAZARD SOURCE[1]	HAZARD SEVERITY[2]	HAZARD PROBABILITY[2]	HAZARD INDEX[2]	FREQUENCY[3]	APPROPRIATE PPE	COMMENTS
FOOT PROTECTION .....(CONTINUED) **Employees are working in an area where floor surface are such that they may create a slip hazard.**									
HAND PROTECTION									
The employee's hands are exposed to hazards such as those from skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, or harmful temperature extremes.									
CLOTHING PROTECTION									
Employees are exposed to harmful materials, chemicals, temperature extremes, or source of cuts, lacerations or punctures.									
FALL PROTECTION									
Employees are working at an elevated area where a slip or fall to a lower level is a potential hazard.									

1 - Identify machinery, chemical, work area, etc. which is source or potential source of a hazard.

2 - See attached Hazard Index Chart for identification

3 - Frequency per period is acceptable (i.e. #/hour, #/minute)

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HAZARD INDEX

HAZARD PROBABILITY	HAZARD SEVERITY		
DEFINITION	**I - CRITICAL**	**II MARGINAL**	**III - NEGLIGIBLE**
A - Likely to occur immediately or within a short period of time.	1	1	2
B - Probably will occur in time.	1	2	2
C - May occur in time.	2	2	3
D - Unlikely to occur.	2	3	3

DEFINITIONS

HAZARD SEVERITY

I - CRITICAL - May cause severe injury.

II - MARGINAL - May cause minor injury.

III - NEGLIGIBLE - Probably would not affect personnel or may cause first aid visit

HAZARD INDEX

1 - PPE is required. Engineering modifications are strongly recommended where feasible.

2 - PPE is strongly recommended. Engineering modifications are strongly recommended where feasible.

3 - PPE may not be necessary.

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APPENDIX 2

PERSONAL PROTECTIVE EQUIPMENT TRAINING LOG

Subject: _____

Instructor: _____

Date: _____ Instructor's Signature: _____

I have trained the employees listed below and certify that they have received training on the IDOL Personal Protective Equipment Standards. A copy of the training outline is attached.

EMPLOYEE'S NAME	TYPE OF PPE	EMPLOYEE'S SIGNATURE	DEPARTMENT	DATE

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