

 CORPORATE SAFETY MANUAL	ENVIRONMENTAL, HEALTH AND SAFETY STANDARDS	
TITLE: PERSONNEL PROTECTIVE EQUIPMENT	Document Number: *	
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1 Purpose

The type of work activities performed by (Insert Company Name) are variable in nature. The personnel protective equipment (PPE) selection criteria are based on the specific tasks that are encountered at a jobsite. The specific PPE requirements for a jobsite are detailed in the Site Specific Safety and Health Plan for the jobsite. The purpose of this policy is to define the selection criteria, maintenance and use for the various types of personnel protective equipment.

EPA Standard Operating Safety Guidance and 20 CFR 1910.120 will be used to define the levels of protection required.

2 Responsibilities

It is the responsibility of the Site Health and Safety Officer to ensure that PPE is selected, used and maintained according to the procedures outlined in this policy.

3 Policy Content

3.1 LEVELS OF PROTECTION

There are four levels of protection – A, B,C and D.

Level A affords the highest level of respiratory, skin and eye protection and is selected when chemical concentrations are Immediately Dangerous to Life and Health (IDLH) Levels or when biological hazards exist that require Level A. The complete Level A gear includes:

- Positive Pressure (pressure demand) Self Contained or in-line breathing apparatus
- Fully Encapsulating Chemical Resistant Suit
- Disposable chemical resistant inner and outer gloves
- Chemical Resistant boots with steel toe and shank (worn over or under suit)
- Intrinsically safe two way radio
- Knife strapped to body for emergency egress from suit
- Hard Hat
- Coveralls and or long cotton underwear
- Escape respirator

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Level B is worn when the highest level of respiratory protection is required with a lesser level of skin protection. Level B is selected for use in IDLH atmospheres, confined space entries, oxygen deficient atmospheres and when the concentrations of contaminants exceed the maximum use limit of an Air purifying Respirator (APR) with full face mask. The complete Level B gear includes:

- Positive Pressure (pressure demand) Self Contained or in-line breathing apparatus
- Chemical resistant clothing (overalls, jacket, coveralls, hooded, two piece chemical splash suit, or disposable chemical resistant coveralls)
- Disposable latex inner gloves
- Disposable chemical resistant outer gloves
- Chemical resistant boots with steel toe and shank
- Duct tape to seams around gloves, zippers, boots, etc.
- Intrinsically safe two way radio
- Hard Hat
- Coveralls and or long cotton underwear
- Escape respirator

Level C is worn when the criteria for using air-purifying respirators are met. Each situation is addressed individually for the type of respiratory protection that is required to complete the work. The chemical substances have good warning properties. The complete Level C gear includes:

- NIOSH approved half face or full face air purifying respirator equipped with the appropriate cartridge
- Chemical resistant clothing
- Disposable latex inner gloves
- Disposable chemical resistant outer gloves
- Chemical resistant boots with steel toe and shank or disposable boot covers
- Duct tape to seams around gloves, zippers, boots, etc.
- Intrinsically safe two way radio
- Hard Hat
- Coveralls and or long cotton underwear

Level D is worn only as a work uniform and not in situations with respiratory and/or skin hazard. It provides no protection against skin hazards. Atmospheric concentrations of contaminants are less than the TLV. The complete Level D gear includes:

- Standard work uniform/coveralls
- Work boots with steel toe and shank
- Work gloves
- Safety goggles/glasses and faceshield
- Hard hat
- Intrinsically safe two way radio
- Hard Hat
- Long cotton underwear

3.2 CRITERIA FOR SELECTING PPE

The following selection criteria should be used in determining PPE requirements:

- Type and measured concentration of chemical substance in the ambient atmosphere and its toxicity.
- Potential for exposure to substances in air, splashed of liquids or other direct contact with material due to work performed.
- Heat and physical stress from working conditions.

Visual and monitoring observations made during site operations should be used to make upgrades in the level of PPE . The action levels for upgrading are determined on a case-by-case basis depending upon the potential exposure.

3.3 HEAD PROTECTION

Selection Criteria

Class AB type hard hats are needed to protect against falling objects and bumping the head. This class of hard hat protects against penetration and absorbs the shock of a falling object. Additionally, it provides high-voltage protection. All hard hats must meet the requirements of ANSI Z89.1-1986.

Use of head protection

- Hard hats are required to be worn at all times on the jobsite.
- The instructions provided by the manufacturer of the hard hat should be followed for proper method of adjusting and replacing the suspension and headband.

Inspection and Maintenance

- All components (shell, suspension, headbands, sweatbands and accessories) should be visually inspected daily for signs of dents, cracks, penetrations or any other damage that might reduce the degree of safety originally provided.
- If there is damage, the helmet must be replaced.
- Do not carry the helmet or store helmets in the rear window shelf of an automobile.
- Helmets should be cleaned and scrubbed with a good detergent and rinsed in clear hot water when it has become dirty.

3.4 EYE AND FACE PROTECTION

Selection Criteria:

All site workers within the work area must have eye protection on at all times. When working in areas where projectile face and neck hazards or liquid splashing hazards exist, faceshields must be used in addition to goggles. The eye wear should be comfortable, fit snugly without interfering with vision, durable, easily cleaned and kept in good repair.

Use of Eye and Face Protection:

- Contact lenses may not be worn when working on the jobsite.
- All goggles and faceshields used must conform to ANSI Z87.1-1989 or be equally effective.
- Ordinary prescription glasses are not acceptable unless protective goggles are worn over them.
- Employees requiring prescription safety glasses will be assessed on a case by case basis.
- Goggles and a face shield must be worn when in situations where splashing is likely to occur.
- Full-face shields must be used when working with glassware under reduced or elevated pressure, glassware used in high-temperature operations, or any time there is a possibility of implosions or explosions.
- Specialized eye protection may be needed when working with lasers, ultraviolet light sources, or intense lights sources. Consult with the Site Safety and Health Officer when choosing specialized eye protection.

Inspection and Maintenance

Eye protection should be inspected and cleaned on a daily basis. Use soap and hot water or a cleaning solution and tissue to clean protective eye and face wear.

3.5 GLOVES

Selection Criteria:

Not all gloves provide the same degree of protection from chemical exposure. Gloves need to be selected according to the relative toxic properties of the chemical or chemicals being used. Consideration must be given to the breakthrough times of the chemicals, work activities being undertaken and the performance characteristics of the glove (i.e. chemical, puncture, tear and abrasion resistance)

Use of Hand and Arm Protection

- Chemical resistant gloves must be worn when handling corrosive materials, toxic materials, or materials of unknown toxicity. Neoprene gloves are recommended for working with acids. Nitrile or butyl rubber gloves are recommended when working with solvents. Glove permeation guides and manufacturers MSDS's should be consulted to determine the proper glove material.
- Before each use, gloves must be inspected for any defects.
- Gloves must be discarded if any defects are found.
- Gauntlet style (elbow length) gloves must be worn when the potential exists for chemical exposure to the forearm.
- Leather gloves or equivalent should be used for handling broken glassware or manipulating glass tubes.
- Before removal, gloves should be washed appropriately. (NOTE: Some gloves are water permeable.)
- Gloves must be removed before leaving the work area.

Inspection and Maintenance

Prior to use, all gloves must be inspected for tears, punctures, holes and chemical contamination. If any defects are found the gloves must be discarded. Gloves should be stored in a location that provides protection from sunlight and chemical contamination.

3.6 FOOT PROTECTION

Selection Criteria

Safety shoes are required when there is the potential for injury due to falling or rolling objects. All safety footwear selected after July 5, 1994 must meet the ANSI Z41-1991 standard. Due to the probability of heavy objects being dropped on worker's feet, all site workers in the work areas must wear foot protection meeting the requirements of ANSI Z41-1991 or equivalent.

Use of Foot Protection

- Safety shoes will be provided to all other employees who's job has the risk of injury to the feet from objects being dropped.
- Shoes and sneakers made of canvas and high heeled (2" or more) shoes are prohibited.

Inspection and Maintenance

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All safety shoes should be inspected for damage or chemical contamination. If the safety shoes become contaminated they should be cleaned with a good detergent and thoroughly rinsed with water. If the inside of the shoes have become contaminated the shoes must be discarded.

3.7 BODY COVERING

Selection Criteria

Body protection is required to be worn in situations that expose the torso to contact with chemicals. The type of body covering should be selected based on the potential for surface contamination and the toxicity of the chemicals. Most jobsites have the potential of surface contamination so employees should wear coveralls while in the work areas. The coveralls should cover entirely all-underlying clothing. Additionally seams along boot tops, along zippers and at the end of the sleeves should be taped closed with duct tape. Chemical resistant coverings, such as tyvek and full rain gear should be considered when dealing with toxic and corrosive materials.

Use of body protection

- A rubber apron must be worn when transferring or mixing corrosive liquids (acids and caustics).
- All full body coverings must be removed at the end of the day for laundering and/or decontamination. Dirty coveralls and coverings must be kept separate from street clothes.

Inspection and Maintenance

All coverings should be inspected prior to wearing for tears, holes or chemical contamination. Defective coverings must not be worn.

3.8 RESPIRATORY PROTECTION

The specific respiratory protection must be selected based on air monitoring results obtained for the specific chemicals. The specifics of selection, use, fit testing and maintenance of respirators is outlined in the Respiratory Protection Policy.

3.9 STORAGE OF PPE

All PPE (including gloves, suits, respirators, etc.) must be maintained in a secure, dry and sanitary storage area. The storage area must be placed away from areas of potential chemical contamination or moisture. Access to the storage area should be limited to the Project Superintendent, or his designee and the Safety and Health Officer.

(Insert Company Name) maintains a supply of various sizes of gloves, protective suits and rubber boots to ensure that personnel may select the proper size PPE.

3.10 TRAINING

Before doing any work requiring use of PPE, employees will be trained on:

- When PPE is required
- What type of PPE is necessary
- How the PPE is to be worn
- Limitations of the PPE
- Proper care, maintenance, useful life and disposal of the PPE

Training sign-in sheets and training program visuals (i.e. overheads, handouts, etc.) will be used to certify that the employees have received the requisite training.

Re-training is required, but not limited to, the following situations:

- When changes in the jobsite render previous training obsolete
- When changes in the types of PPE to be used render previous training obsolete
- When inadequacies are found in an affected employee's knowledge or use of assigned PPE

4 References

OSHA Personal Protective Equipment (29 CFR 1910.132 to 1910.138)
EPA Standard Operating Safety Guidance and 20 CFR 1910.120

5 Appendices

None