




Standard Operating Procedure		
SOP Title:	Personal Protection Equipment	REV. 1
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Director, HSM	Section:	5.5

5.5 PERSONAL PROTECTION EQUIPMENT

5.5.1 Scope and Application

For any work task performed, hazards in one form or another exist that can be prevented using proper equipment that is appropriate for the task. This procedure outlines the Personal Protection Equipment (PPE) policy for White Shield employees.

The information outlined in this procedure should be used in conjunction with any Job Hazard Analysis (JHA) to determine what level of PPE is required for a particular task.

5.5.2 References

- 29 CFR 1926.25 (OSHA- PPE)
- WAC 296-800-16005 (Hazard Assessment for PPE)
- WAC 296-800-16015 (Selecting Proper PPE)
- WAC 296-800-16025 (Training)
- WAC 296-155-24510 (Fall Protection)
- WAC 296-800-16050 (Face Protection)
- WAC 296-800-16055 (Head Protection)
- WAC 296-800-16060 (Foot Protection)
- WAC 296-800-16065 (Hand Protection)

5.5.3 Definitions

Air-purifying Respirator (APR) A respirator equipped with an air-purifying element such as a filter, cartridge, or canister, or having a filtering face piece; for example, a dust mask. The element or filtering face piece is designed to remove specific contaminants, such as particles, vapors, or gasses, from air that passes through it.

Immediately Dangerous to Life or Health (IDLH) An atmospheric condition that would cause an immediate threat to life or cause permanent or delayed adverse health effects or interfere with an employee's ability to escape.

Permissible Exposure Limit (PEL) Established by OSHA regulatory authority. It is the maximum concentration of a particular substance to which a worker can safely be exposed for a 40-hour work week (five 8-hour work days).

Personal Protective Equipment (PPE) Specialized clothing or equipment worn by employees for protection against health and safety hazards. Personal protective equipment is designed to protect many parts of the body, i.e., eyes, head, face, hands, feet, and ears.

Self-Contained Breathing Apparatus (SCBA) An atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

Supplied Air Respirator (SAR) An atmospheric-supplying device which provides the wearer with respirable air from a source outside the contaminated area

5.5.4 Training

All field personnel and project managers should understand and implement the use of proper PPE. Hazards will be identified and discussed as part of the Daily Hazard Analysis (see section 5.3), and the PPE needed for the specific tasks will be reviewed to ensure no additional PPE is necessary. Retraining of the employee is required when the workplace changes, making the earlier training obsolete, the type of PPE changes, or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding.

All field personnel must receive proper training in the use and maintenance of PPE prior to issuance of the equipment. This training may consist of the 40 hour Hazwopper training for higher levels of PPE (See 5.5.15).

Records of PPE training are to be documented and must include the employee name, the dates of training, and the certification subject.

5.5.5 Responsibilities

Employer

Protective clothing and equipment required beyond normal occupational dress and equipment will be provided and maintained by WSI. Employee-owned PPE is not allowed. All PPE provided by WSI remains the property of the company. The employer shall verify that the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated; the person certifying that the evaluation has been performed; the date(s) of the hazard assessment; and, which identifies the document as a certification of hazard assessment.

Employee

Each worker shall wear suitable protective clothing and equipment on a project site where a worker is likely to be exposed to injury. Employees shall notify their supervisor when WSI supplied safety equipment is lost, stolen or needs replacement.

Subcontractor

It is the responsibility of the subcontractor to wear or use protective clothing and equipment that is required for the safe and healthy performance of worker's task.

5.5.6 Suitable Work Clothing

Field employees are required to wear closed toe shoes, shirts and have long pants available at all times. Clothing that is torn, having holes or has un-hemmed ragged edges shall not be worn. All personnel will be responsible for purchasing the required shoes, boots, coveralls, shirt, pants or raingear for normal working conditions.

5.5.7 Head Protection

Hard hats will be worn at all times when required or hazards exist. Only hard hats meeting ANSI Z-89.1 requirements are approved for use. Additionally, hard hats are to be worn at all times while on a construction site except when employees are in vehicles; in offices; taking lunch and break rooms or walking to from office building or to the parking lot on designated pathways.

5.5.8 Hand Protection

All appropriate hand protection will be provided by WSI and used by employees when exposed to work hazards. The type of protection worn shall be selected according to the hazards to be protected against. These include but are not limited to:

- Impacts, cuts, abrasions and infections,
- Extreme temperatures, and
- Chemical, toxic, corrosive and other hazardous substances.

Type of Glove	Protects Against	Work Task Examples*
<u>Light Duty Gloves</u> Vinyl coated, gardening style gloves, etc	Dirt, incidental impact, minor abrasions, blisters.	General housekeeping, ladder climbing, inspections.
<u>Medium Duty Gloves</u> Leather (pigskin, cowhide, ect.) Tuff-coat, Mechanix style, etc.	Abrasions, cuts, lacerations, average impacts, punctures, splinters.	This is the standard glove style. Same as light duty plus heavier and shaped for material handling, hand/power tool usage.
<u>Metal Mesh/Kevlar Gloves</u>	High resistance to cuts and scratches.	Work involving a knife, razor knife, razor wire, sharp wires, sharp metal edges, glass, etc.
<u>Chemical Resistant Gloves</u> Nitrile gloves <4 hrs	Some chemical exposure and burns.	Working with chemicals, sampling, hazardous materials, fuel.

* The above list contains a few examples. Contact HSM if assistance is needed in glove selection.

5.5.9 Eye Protection

Every worker on a project site likely to be exposed to eye injury due to flying particles, hazardous substances, harmful light or injurious heat rays, shall wear ANSI Z87.1-2010 approved eye protection.

Task	Safety Glasses	Goggles	Face Shield
Etching concrete, metal	X		
Driving hubs & lath	X		
Punching metal	X		
Driving pins, mag nails	X		
Spray painting	X		
High winds (>20mph)		X	
Chain saw operation		X	
Machete use		X	
Chemical sampling/handling		X	X

5.5.10 Foot Protection

Substantial hard-soled boots or shoes must be worn, with boot/shoe tops made of durable, sturdy leather or rubber. Open-toed, tennis, or athletic shoes are not acceptable. Steel toed shoes may be a site specific requirement deemed necessary by the PM.

5.5.11 Reflective Vests

Every employee exposed to the hazards of vehicular traffic highway, exposed roadway, street or on a construction project site shall wear fluorescent orange reflective "survey vests" class II or III as outer clothing (ANSI 107.2004) at all times.

5.5.12 Hearing Protection

Hearing protection actions, including the selection of hearing protection equipment and the identification of high noise areas (>85 db) are discussed in Standard Operating Procedure (SOP) 5.12 of the WSI Health and Safety manual.

5.5.13 Respiratory Protection

Respiratory protection activities are defined in Respiratory Protection Program, section 4.0.

5.5.14 Fall Prevention Protection

Full body safety harness with lanyards shall be used for work that is performed six (6) feet or greater above the working floor level or over an impalement hazard, as required by SOP 5.9.

5.5.15 Fitting, Care, and Use of PPE

It is the responsibility of workers to ensure that PPE is properly fitted, including proper donning, doffing, cleaning, and maintenance. Additionally, workers are to use and care for protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.

Any PPE found to be damaged or defective should not be used. The PPE should be removed from service and disposed of in accordance with waste handling procedures.

5.5.16 Personal Protective Equipment Levels

Any project team member can seek to upgrade the level of protection established. This will be accomplished through consultation with the PM/SSO, and an agreement will be reached before the team member enters the work area. **UNDER NO CIRCUMSTANCES** will the team members downgrade the level of personal protection specified in the Site Specific Health and Safety plan.

Level D is the minimum protection required on any work site. See the Site Specific Health and Safety plan for the level of protection required at your job location.

Level A

Level A protection is used for specific tasks where hazardous substances have been identified and require the highest level of skin, eye, and respiratory protection due to high concentrations of vapors, gases or particulates, a risk of exposure by splashes or immersion, or in areas where operations must be conducted in confined spaces.

Required Level A PPE:

- Positive Pressure full SCBA or Positive Pressure SAR with escape SCBA
- Totally encapsulated, vapor protective suit
- Inner and Outer chemical resistant gloves
- Chemical resistant safety boots or shoes
- Disposable protective suit, gloves, and boots
- Hard hat
- Two-way radio

Optional Level A PPE:

- Coveralls
- Cooling units
- Long Cotton underwear

Level B

Level B protection is used for specific tasks where hazardous substances have been identified and require a high level of respiratory protection, but less skin protection. This includes atmospheres that have an IDLH concentration of substances that do not present a skin hazard, or atmospheres that do not meet the criteria for use of APRs, or atmospheres that contain less than 19.5% oxygen.

Required Level B PPE:

- Positive pressure Full Face SCBA or positive pressure SAR with escape SCBA
- Liquid protective suit
- Inner and outer chemical resistant gloves
- Chemical resistant safety boots or shoes
- Hard hat
- Two-way radio

Optional Level B PPE:

- Coveralls
- Face shield
- Long cotton underwear
- Disposable boot covers

Level C

Level C protection is used for tasks when atmospheric contaminants, liquid splashes, or other direct contact will adversely affect or be absorbed through exposed skin. This level should also be used when air contaminants have been identified that an APR can remove, so long as all criteria for the use of the APR has been met.

Required Level C PPE:

- Full-face or half-mask APR

- Liquid protective suit
- Inner and Outer gloves
- Hard Hat
- Outer chemical resistant steel toe and shank
- Two-way radio

Optional Level C PPE:

- Coveralls
- Face shield
- Escape Mask
- Disposable boot covers

Level D

Level D protection is used in work areas where no atmospheric hazards exist, and where work functions will not include splashes or immersion, inhalation or contact with hazardous levels of any chemicals.

Required Level D PPE:

- Leather work boots or rubber boots
- Standard work clothes and/or overalls or PVC/nitrile rain gear
- Nitrile surgical weight gloves to be used as inner gloves, as needed
- Work gloves, nitrile gloves, or equivalent, to use as outer gloves, as needed
- Hard Hat
- Safety glasses or goggles for general work, and with shading to control glare
- Hearing protection for any activities in areas where PEL exceeds 85db
- High visibility Class II or III safety vest