

# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

California State Office  
2800 Cottage Way Rm W1834  
Sacramento, California 95825-0451  
January 10, 2001

IN REPLY REFER TO:

1112-1 (P)  
CA-940

EMS TRANSMISSION: 01/11/01  
Instruction Memorandum No. CA-2001-018  
Expires: 09/30/02

To: ACO'S  
**Attn:** Managers, Supervisors and Safety Officers

From: State Director

Subject: Personal Protective Equipment and Clothing

It is the Bureau's policy that personal protective equipment (PPCE) for the eyes, face, head and extremities; protective clothing, hearing and respiratory protective devices, and protective shields and barriers be provided for use on the job by the Bureau of Land Management. All employees will be provided and **required** to wear personal protective equipment whenever necessary in order to protect the employee against the environmental, chemical or 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.

Personal protective equipment and clothing must be used by employees at all appropriate times and such equipment or attire must be maintained in a sanitary and operationally sound condition. The functional maintenance of all PPCE includes proper storage and handling of these item(s) according to manufacturer's specification when not in use.

Due to the diversity of the occupational environments encountered by our employees each supervisor is responsible for evaluating his/her operational activities and working conditions for hazards which may have the potential to cause injury, illness or impairment of bodily functions.

Supervisors must determine the need for specific PPCE while meeting the requirements as defined in 29 CFR 1910.132 through 140. Prescribed PPCE must be available for use by all employees who might be exposed to a given hazard. It is critical that **proper training** is provided to any employee required to use or don PPCE. This is necessary in order for the employee to properly select, inspect, use, maintain & store and when necessary, dispose of such equipment. Some employees may have to be properly fitted for PPCE such as footwear, spectacles or goggles, hearing protectors, headgear and respirators.

(It is important to note: in situations where an employee(s) is required to wear a respirator, the employee(s) must be medically evaluated by a physician or certified EMT. Also, training on the use of respiratory equipment **must** be documented.)

The following procedures will be considered policy for the acquisition and use of Bureau provided Personal Protective Clothing & Equipment:

**DEFINITIONS OF PPCE:** Personal Protective Clothing & Equipment must be defined/described as equipment, supplies, materials or unique articles of clothing that are necessary for the safe performance of assigned duties within an existing or potentially hazardous work environment. Excepting the BLM Uniform and its authorized components, materials, articles of clothing and other accouterments requested due to individual preference or for purposes of comfort, simple convenience, appearance or style will be regarded as personal convenience items and are not to be considered PPCE. Examples may include: hats or other nonprotective headgear, hiking boots, rain boots, sunglasses, custom tack or similar leather goods, bags or totes, jackets and pants.

**JOB HAZARD ANALYSIS (JHA):** Because the work being contemplated is likely to be non-routine or non-recurring a separate and specific JHA must be developed by the supervisor and the employee. The JHA must stipulate: 1)The job that must be performed. 2)The identified hazards and prescribed abatement procedures necessary to safely perform the required work. If the abatement procedures include a recommendation to purchase and use PPCE, that recommendation must be fully justified within the JHA. The JHA must also identify all required training associated with the application, use or operation of the PPCE.

**REVIEW(S) AND APPROVAL(S):** Should the situation warrant a supervisor's acknowledgment that PPCE is necessary, the Job Hazard Analysis will be subject to the following approvals:

- a. If the purchase of PPCE or clothing is below and/or exempt from the prescribed purchase threshold and identification of capitalized, sensitive or controlled equipment the Field Office Safety Manager has the authority to review and approve the JHA leading to the purchase of the PPCE.
- b. Proposed acquisition of PPCE identified as Capitalized, sensitive or controlled equipment **or** Personal Protective Clothing & Equipment that requires specialized skills, training or abilities in the use and operation of such equipment must be approved by the State Safety Manager at the California State Office.
- c. Under no circumstances will PPCE be procured without the required local or state reviews and approvals. If there is any doubt or confusion regarding the purchase and use of PPE contact your local safety officer or the State Safety Manager in advance of the acquisition.

**PURCHASE:** Local purchase procedures or other appropriate State and Bureau business practices are authorized following the guidance described above. However, once acquired, PPCE is considered Government Property and is subject to the same use, inventory, handling and storage controls as other accountable items. Personal Protective Clothing & Equipment is often purchased and used under difficult to extreme conditions Please take the time to apply the guidance contained in this correspondence and the attached safety program emphasis for PPCE as part of our continual effort to avoid serious accidents and injuries.

If you have any further questions on this or other safety concerns please contact Jim Anger via e-mail or telephone (916) 978-4521.

**Signed:**  
**Mike Pool**  
**State Director**

Authenticated:  
Liza Raymundo  
Records Management

Attachment:  
PPCE Special Emphasis Program (5 pp)

## **Personal Protective Clothing & Equipment**

## ***Purpose:***

The **Bureau of Land Management, California** provides all Employees with required PPCE to suit the task and known hazards. This Chapter covers the requirements for Personal Protective Equipment with the exception of PPCE used for respiratory protection or PPCE required for hazardous material response to spills or releases. Applicable OSHA Standards are 1910 Subpart 1 App B and 1910.120 App B, 132, 133, 136, and 138

## ***General Rules***

### ***Design.***

All personal protective equipment shall be of safe design and construction for the work to be performed.

### ***Hazard assessment and equipment selection.***

Hazard analysis procedures shall be used to assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPCE). If such hazards are present, or likely to be present, the following actions will be taken:

- ! Select, and have each affected Employee use, the proper PPCE
- ! Communicate selection decisions to each affected Employee
- ! Select PPCE that properly fits each affected employee.

### ***Defective and damaged equipment.***

Defective or damaged personal protective equipment shall not be used.

## ***Training:***

All Employees who are required to use PPCE shall be trained to know at least the following:

- ! When PPCE is necessary;
- ! What PPCE is necessary;
- ! How to properly don, remove, adjust, and wear PPCE;
- ! The limitations of the PPCE
- ! The proper care, maintenance, useful life and disposal of the PPCE.

Each affected Employee shall demonstrate an understanding of the training and the ability to use PPCE properly, before being allowed to perform work requiring the use of PPCE.

Certification of training for PPCE is required by OSHA and shall be accomplished by using the *Job Safety Checklist* to verify that each affected Employee has received and understood the required PPCE training.

## ***Personal Protective Clothing & Equipment Selection***

### ***Controlling hazards.***

PPCE devices alone should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls, and sound manufacturing practices.

### ***Selection guidelines.***

The general procedure for selection of protective equipment is to:

- a) become familiar with the potential hazards and the type of protective equipment that is available, and what it can do; i.e., splash protection, impact protection, etc.;
- b) compare the hazards associated with the environment; i.e., impact velocities, masses, projectile shape, radiation intensities, with the capabilities of the available protective equipment;
- c) select the protective equipment which ensures a level of protection greater than the minimum required to protect employees from the hazards
- d) fit the user with the protective device and give instructions on care and use of the PPCE. It is very important that end users be made aware of all warning labels for and limitations of their PPCE.

### ***Fitting the Device***

Careful consideration must be given to comfort and fit. PPCE that fits poorly will not afford the necessary protection. Continued wearing of the device is more likely if it fits the wearer comfortably. Protective devices are generally available in a variety of sizes. Care should be taken to ensure that the right size is selected.

### ***Devices with adjustable features.***

Adjustments should be made on an individual basis for a comfortable fit that will maintain the protective device in the proper position. Particular care should be taken in fitting devices for eye protection against dust and chemical splash to ensure that the devices are sealed to the face. In addition, proper fitting of helmets is important to ensure that it will not fall off during work operations. In some cases a chin strap may be necessary to keep the helmet on an employee's head. (Chin straps should break at a reasonably low force, however, so as to prevent a strangulation hazard). Where manufacturer's instructions are available, they should be followed carefully.

### ***Eye and Face Protection.***

Each affected employee shall use appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.

Each affected employee shall use eye protection that provides side protection when there is a hazard from flying objects. Detachable side protectors are acceptable.

Each affected employee who wears prescription lenses while engaged in operations that involve eye hazards shall wear eye protection that incorporates the prescription in its design, or shall wear eye protection that can be worn over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses.

Eye and face PPCE shall be distinctly marked to facilitate identification of the manufacturer.

Each affected employee shall use equipment with filter lenses that have a shade number appropriate for the work being performed for protection from injurious light radiation. The following is a listing of appropriate shade numbers for various operations.

<b><i>Filter Lenses for Protection Against Radiant Energy</i></b>			
<b>Operations</b>	<b>Electrode Size 1/32 in</b>	<b>Arc Current</b>	<b>Protective Shade</b>
Shielded metal arc welding	Less than 3	Less than 60	7
	3-5	60-160	8
	5-8	160-250	10
	More than 8	250-550	11
Torch brazing			3
Torch soldering			2
<p>Note: As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.</p>			

<b><i>Selection chart guidelines for eye and face protection</i></b>		
<p>The following chart provides general guidance for the proper selection of eye and face protection to protect against hazards associated with the listed hazard "source" operations.</p>		
<b><i>Source</i></b>	<b><i>Hazard</i></b>	<b><i>Protection</i></b>
IMPACT - Chipping, grinding machining, masonry work, woodworking, sawing, drilling, chiseling, powered fastening, riveting, and sanding	Flying fragments, objects, large chips, particles, sand, dirt, etc.	Spectacles with side protection, goggles, face shield For severe exposure, use face shield
HEAT-Furnace operation and arc welding	Hot sparks	Faceshields,, spectacles with side. For severe exposure use face shield.
CHEMICALS-Acid and chemical handling, degreasing, plating	Splash	Goggles, eyecup and cover types. For severe exposure, use face shield.
DUST - Woodworking, buffing, general, buffing, general dusty conditions.	Nuisance dust	Goggles, eye cup and cover type

***Selection guidelines for head protection.***

All head protection is designed to provide protection from impact and penetration hazards caused by falling objects. Head protection is also available which provides protection from electric shock and burn. When selecting head protection, knowledge of potential electrical hazards is important. Class A helmets, in addition to impact and penetration resistance, provide electrical protection from

low-voltage conductors (they are proof tested to 2,200 volts). Class B helmets, in addition to impact and penetration resistance, provide electrical protection from high-voltage conductors (they are proof tested to 20,000 volts). Class C helmets provide impact and penetration resistance (they are usually made of aluminum which conducts electricity), and should not be used around electrical hazards. Where falling object hazards are present, helmets must be worn. Some examples include: working below other workers who are using tools and materials which could fall; working around or under conveyor belts which are carrying parts or materials; working below machinery or processes which might cause material or objects to fall; and working on exposed energized conductors.

## ***Foot Protection.***

### ***General requirements.***

Each affected employee shall wear protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where employee's feet are exposed to electrical hazards.

### ***Selection guidelines for foot protection.***

Safety shoes and boots provide both impact and compression protection. Where necessary, safety shoes can be obtained which provide puncture protection. In some work situations, metatarsal protection should be provided, and in other special situations electrical conductive or insulating safety shoes would be appropriate. Safety shoes or boots with impact protection would be required for carrying or handling materials such as packages, objects, parts or heavy tools, which could be dropped; and, for other activities where objects might fall onto the feet. Safety shoes or boots with compression protection would be required for work activities involving skid trucks (manual material handling carts) around bulk rolls (such as paper rolls) and around heavy pipes, all of which could potentially roll over an employee's feet. Safety shoes or boots with puncture protection would be required where sharp objects such as nails, wire, tacks, screws, large staples, scrap metal etc., could be stepped on by employees causing a foot injury.

## ***Hand Protection.***

### ***General requirements.***

Hand protection is required when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.

### ***Selection guidelines for hand protection.***

Selection of hand PPCE shall be based on an evaluation of the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified. Gloves are often relied upon to prevent cuts, abrasions, burns, and skin contact with chemicals that are capable of causing local or systemic effects following dermal exposure. There is no glove that provides protection against all potential hand hazards, and commonly available glove materials provide only limited protection against many chemicals. Therefore, it is important to select the most appropriate glove for a particular application and to determine how long it can be worn, and whether it can be reused. It is also important to know the performance characteristics of gloves relative to the specific hazard anticipated; e.g., chemical hazards, cut hazards, flame hazards, etc. Before purchasing gloves, request documentation from the manufacturer that the gloves meet the appropriate test standard(s) for the hazard(s) anticipated. Other factors to be considered for glove selection in general include:

- (A) As long as the performance characteristics are acceptable, in certain circumstances, it may be more cost effective to regularly change cheaper gloves than to reuse more expensive types.
- (B) The work activities of the employee should be studied to determine the degree of dexterity required, the duration, frequency, and degree of exposure of the hazard, and the physical stresses that will be applied.

### ***Selection of gloves for protection against chemical hazards:***

- (A) The toxic properties of the chemical(s) must be determined; in particular, the ability of the chemical to cause local effects on the skin and/or to pass through the skin and cause systemic effects.
- (B) Generally, any "chemical resistant" glove can be used for dry powders;
- (C) For mixtures and formulated products (unless specific test data are available), a glove should be selected on the basis of the chemical component with the shortest breakthrough time, since it is possible for solvents to carry active ingredients through polymeric materials.
- (D) Employees must be able to remove the gloves in such a manner as to prevent skin contamination.