

## **Chapter 9**

### **Personal Protective Equipment Program**

#### **9-1. General**

a. OSHA standards require that employers assess the workplace to determine if hazards are present which necessitate the use of PPE and clothing. Personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers shall be provided, used, and maintained in a sanitary and reliable condition.

b. All personnel required to wear PPE must do so when exposed to noise, foot, eye, head, hand, or breathing hazards. Personnel must report to all scheduled medical examinations, evaluations, and treatments as well as health education briefings concerning the hazards they may encounter in their job assignment. Personnel must ensure their PPE is cleaned, maintained, and stored in the proper manner.

c. Supervisors/commanders will provide proper personal protective clothing and equipment for employees.

d. Supervisors/commanders must prepare a Fort Lee Form 930, Job Hazard Analysis (JHA), for each job they supervise. The JHA will identify the hazard and the appropriate PPE. Unit SDSs will assist in identifying proper PPE for hazardous chemicals.

#### **9-2. Eye injury prevention**

a. The prevention of ocular injury is better than its treatment for injury by any known medical or surgical means. When the Installation Safety Office has classified an operation or activity as an eye hazardous, the use of eye protection is mandatory. Supervisors and commanders may approve additional operations and activities when job duties bring personnel into eye hazardous areas.

##### *b. Responsibilities.*

(1) The Installation Safety Office (ISO) will:

(a) Designate and label specific areas where the use of eye protection is required.

(b) Promote compliance by providing training on the effects of poor illumination, eye injury prevention, and the proper use, care, and storage of personal protection.

(c) Conduct surveys to ensure compliance with the Occupational Eye Protection Program, monitor use of eye protection and inform supervisors of personnel who knowingly violate this program.

(2) Commanders and supervisors will:

(a) Identify personnel exposed to eye hazards and ensure Service Members/employees properly use and are provided with eye protection.

(b) Ensure personnel are provided with and properly use eye protection while in eye hazardous areas.

(c) Ensure adequate illumination is provided in the workplace.

(d) Ensure contact lenses are not used without proper protection in dusty conditions, such as under a protective mask, during exposure to eye hazardous chemicals or air contaminants and not worn when using a respirator.

(e) Initiate disciplinary action on personnel who knowingly and repeatedly violate the provisions of this policy.

(f) Inspect and test eye lavage weekly. They must be flushed a minimum of 3 minutes weekly to eliminate the potential of eye infection during emergency use.

(g) Provide visitors entering eye hazardous areas with proper eye protection.

(3) The employee will: Give the eye glasses prescription from the private optometrist to his/her supervisor for purchase with activity funds.

(4) Activity Purchase Card Holder will purchase the employee's safety glasses from any vendor which the activity uses. Order forms for prescription eyewear will state: "Polycarbonate lenses only" since they are mandated. Permanently fixed side shields for all safety glasses are highly recommended but not mandated. If permanently fixed side shields are requested, it should be specified on the order form. Any patient requiring multi-focal will be given the choice of a straight line bi-focal, tri-focal, or equivalent. Progressive are no longer provided. Personnel will be limited to one pair of prescription glasses annually unless the glasses are broken as a result of an occupational operation or the corrective lens prescription changes.

### **9-3. Foot injury prevention**

a. Employees working in identified, foot-hazardous positions will be provided appropriate foot protection. All foot protection will meet American Society of Testing Materials (ASTM) standards, ASTM F2413, 2005. Employees are authorized one pair of safety shoes annually, unless shoes are unserviceable or work process requires multiple types of protection.

b. *Responsibilities.*

(1) The Installation Safety Office will:

(a) Monitor activity foot injury prevention programs.

(b) Establish limit on safety shoe cost and review the set limit at least every 2 years.

(2) Commanders and supervisors will determine which positions have foot-hazardous tasks. Use the job hazard analysis process to determine the nature of the shoe required, such as, insulated shoe or boot, water resistant, electrical hazard, etc.

(3) Purchase cardholders will purchase appropriate type shoe within a \$150 limit. Fire and Emergency Services (FES) personnel and other employees in high-risk areas, where generic safety shoes do not provide protection from their duties, are exempt from the \$150 limit.

#### **9-4. Hearing Conservation Program**

a. Noise levels from equipment such as lawnmowers, weed eaters, weapons, power generators, combat vehicles, construction equipment, and helicopters, etc., are of such high intensity that they can cause permanent damage. Permanent hearing loss is frequently not recognized by the individual until it interferes with the ability to understand the speech of others and requires people to repeat phrases. Noise-induced hearing loss is a painless, bloodless, and sightless disability. Unprotected ears exposed to loud noises are particularly deafened so they cannot readily detect sounds essential to a Service Member's survival in a combat situation. Hearing losses may also require a permanent change of profile which frequently excludes an individual from working in his or her primary MOS or job assignment. However, an effective Hearing Conservation Program is the tool to prevent hearing loss.

##### *b. Responsibilities.*

(1) MEDDAC will:

(a) Conduct annual inspections and surveys to determine the existence of noise-hazardous areas.

(b) Report failure to comply with this regulation through command channels.

(c) Provide a list of noise hazardous areas to Civilian Personnel Advisory Center (CPAC) and the Installation Safety Office for their respective aspects of the program.

(d) Inform supervisors and commanders of new noise hazardous areas at the time of determination.

(e) Evaluate all noise hazards and make suitable recommendations for their control, correction, and/or elimination.

(f) Ensure personnel working in noise hazardous areas receive audiometric evaluations annually. Coordinate/schedule all necessary audiometric evaluations; also, ensure individuals' health records are annotated accordingly. Prepare FL Form 1051, Record of Injury, on any significant threshold shift of 20 dB or more in either ear.

(g) Properly fit hearing protective devices.

(h) Notify supervisors/employees/CPAC when evaluation indicates a hearing loss exists or will be aggravated by noise exposure.

(i) Assist in hearing conservation education.

(2) CPAC will:

(a) Ensure applicants for jobs in noise hazardous areas receive pre-placement or pre-transfer audiometric evaluations.

(b) Assist the responsible organization in taking appropriate personnel placement action when notified by PMS that an individual has sustained a hearing loss which will be aggravated by continued hazardous noise exposure.

(c) Notify the PMS of personnel changes in noise hazardous areas.

(3) The Installation Safety Office will:

(a) Coordinate with PMS to determine the existence of noise hazardous areas and control the entrance into these areas by posting color-coded warning signs and identify noise hazardous equipment with labels. Refer to PMS those areas that may require noise assessment when identified through regular safety inspections.

(b) Notify responsible supervisors and unit commanders of noise hazardous areas and equipment within their area of responsibility.

(c) Monitor the use of hearing protective devices to assure compliance with established regulations.

(4) Directorate of Public Works (DPW) will: Implement engineering controls to reduce hazardous noise levels whenever feasible. Personal protective equipment will not be an authorized substitute for effective engineering controls.

(5) Commanders will:

(a) Ensure military working in noise hazardous areas are provided audiometric evaluation and hearing protection such as earmuffs and/or earplugs.

(b) Ensure personnel under their command who enter noise hazardous areas wear hearing protection.

(c) Ensure earplugs and earplug carrying cases are part of the duty uniform for all military personnel.

(d) Ensure designated noise hazards within their command have signs visibly.

(6) Supervisors of Civilian employees will:

(a) Notify PMS of suspected noise hazards in their shops or area.

(b) Ensure personnel working in a noise hazardous environment wear their hearing protection and receive an annual audiogram, and provide visitors entering noise hazardous areas with proper hearing protection.

(c) In conjunction with CPAC, supervisors take appropriate action in personnel placement when notified by PMS of results of medical examinations, evaluations, and surveys.

(d) Refer personnel under their jurisdiction to the appropriate medical facility for hearing problems or complaints associated with wearing hearing protection.

(e) Provide visitors entering noise hazardous areas with proper hearing protection. Earmuffs are preferred.

#### **9-5. Respiratory Protection Program**

The provision of adequate respiratory protection for personnel working in operations which release potentially toxic or nuisance contaminants into the air is a command responsibility. This protection may include the provisions of general or local exhaust ventilation sufficient to reduce the concentrations of toxic contaminants below the current threshold limit values of the American Conference of Government Industrial Hygienists or the provision of special respiratory protective devices.

a. Respiratory Protective Equipment (RPE) assures uncontaminated respirable air to the user. Respirators are approved devices designed to provide the wearer with the respiratory protection against inhalation of contaminated atmosphere and, for some devices, oxygen-deficient atmosphere. Approved respirators are tested and listed as satisfactory by the National Institute for Occupational Safety and Health (NIOSH) or the Mining Safety and Health Administration (MSHA). This does not include the use of apparatus intended to protect the atmosphere or ambient air from contamination, such as use of surgical masks in a surgical suite.

(1) *Air purifying respirators* - atmospheric dependent, particulate removing, mechanical filter.

(2) *Atmosphere supplying respirators* - hose-type atmospheric supplying: hose mask, air line respirator, continuous-flow type, and demand type.

(3) *Self-Contained Breathing Apparatus (SCBA)* – re-circulating type, demand type, pressure-demand combination.

b. Respirators will be considered as an acceptable method of protecting the health of the employee under the following circumstances:

(1) Immediately Dangerous to Life or Health (IDLH) are conditions that pose an immediate threat of severe exposure to contaminants that are likely to have adverse delayed effects on health, which include oxygen deficient atmosphere.

(2) The identification and evaluation of the operation where respiratory protection is required and the correct respirator use for those operations.

(3) When no engineering or work practice controls can be used to adequately control the hazard.

(4) During interim periods while engineering controls are being researched, designed, or installed to eliminate the hazard.

(5) During emergencies.

(6) When required by other Federal regulations or operating license.

c. Respirator uses:

(1) *Intermittent use of respiratory protective equipment.* Operations performed less than 1 hour a day for 1 day a week.

(2) *Permanent use of respiratory protection equipment.* Operations performed greater than 1 hour a day for 1 day a week.

d. *Engineering controls.* In the controls of those occupational diseases caused by breathing air contaminated with harmful dust, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination measures. This shall be accomplished as far as feasible by accepted engineering control measures; for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials. When effective engineering controls are not feasible or while they are being instituted, appropriate respirators approved by the Installation Safety Office shall be used.

e. *Tactical protective gas masks.* This regulation does not regulate the wearing and use of tactical protective gas masks and equipment; however, protective gas masks will never be used in lieu of approved respirators.

f. *Responsibilities.*

(1) The Installation Safety Office will:

(a) Appoint an Installation Respirator Specialist IAW AR 11-34.

(b) Be responsible for implementing the Respiratory Protection Program.

(c) Ensure directorates/activities requiring employees to wear RPE appoint a respirator specialist.

(d) Request the Industrial Hygienist to perform surveys where personnel without respiratory protection are working in an atmosphere suspected to be hazardous to health.

(e) Designate, in coordination with the Industrial Hygienist, the type of RPE to be purchased and used.

(f) Provide guidance to supervisors in the preparation of an SOP on respirator use in their particular work areas.

(g) Approve SOPs prepared for respirator use before they are published.

(h) Approve or disapprove routine entry into an immediately dangerous to life or health (IDLH) environment, to include confined spaces.

(i) Conduct regular inspections of work areas to assure compliance and continued effectiveness of the Respiratory Protection Program.

(j) Assure proper corrective action is taken on deficiencies which are detected in the Respiratory Protective Program.

(k) Conduct random inspections to determine if RPE is properly selected, used, cleaned, maintained, stored, and disposed of.

(l) Conduct random inspections to ensure respirator specialists maintain records of monthly inspections conducted on emergency use respirators and SCBA.

(m) Assist respirator specialists in performing annual training and fit testing for employees requiring RPE IAW AR 11-34.

(2) Preventive Medicine Service (PMS) will:

(a) Assist in reviewing the respiratory protection program periodically and conduct on-site evaluations to ensure compliance IAW prescribed directives and provide the Installation Safety Office a copy of the findings. Site evaluations will include: Verifying that personnel have been medically approved to wear respirator protection and that it is documented; verifying that personnel are wearing appropriate respirator which has the appropriate protection factor; ensuring proper documentation is maintained to show breathing air systems have been tested for air quality; and verifying that personnel are appropriately trained and fit tested IAW the fit test protocol applicable to the contaminant in the applicable standards.

(b) Ensure that recommendations are provided to the responsible activity director for the purpose of corrective action.

(c) Provide the Installation Safety Office and CPAC with a list identifying job operations in which RPE is required. The list will include location of the operation, number of personnel required to use respiratory equipment, type of respiratory equipment required, and intended use of equipment, such as permanent, temporary, intermittent, or emergency.

(d) Provide work areas with the proper procedures for selecting respirators. Prior to assignment of respiratory protection device, ensure personnel receive qualitative fit testing to ensure an effective face piece to face seal.

(e) Provide training and guidance to respirator specialists IAW AR 11-34.

(f) Determine if workers assigned to tasks requiring the use of respirators are physically able to perform work while wearing prescribed respiratory protection.

(g) Perform as required periodic medical surveillance of individuals working in areas requiring the use of RPE.

(h) Assist respirator specialists in performing annual training and fit testing for employees requiring RPE IAW AR 11-34.

(3) Civilian Personnel Advisory Center (CPAC) will:

(a) Refer personnel being considered for employment in the areas of operations requiring the use of RPE to the Occupational Health Clinic for a pre-employment physical examination.

(b) Reassign employees presently working in the areas calling for respiratory equipment who are unable to wear the required protection properly as determined by the Occupational Health Clinic.

(4) DPW will:

(a) Install and maintain breathing air systems capable of providing Grade D, normal atmospheric breathing air where required.

(b) Maintain compressed air breathing system alarms in an operable manner.

(c) Implement a schedule of routine maintenance for servicing and inspecting airline purification panels and changing filters and cartridges as necessary.

(5) Fire and Emergency Services will: Provide training for firefighters using RPE and respirator specialists in coordination with the Installation Safety Office and Preventive Medicine Service as outlined in AR 11-34. Training will include:

(a) Handling, use, and maintenance of respirators.

(b) Respirator selection based on the contaminant in the atmosphere and the appropriate protection factor to include the approval of Industrial Hygienist of a selected respirator and cartridge.

(c) Records management.

(d) Medical and safety aspects of the program.

(e) Fitting and testing of respirators.

(f) Coordinate with respirator specialist to inspect monthly the emergency use respirators and SCBA.

(g) Be available for emergency situations where an SCBA would be required to enter a contaminated atmosphere.

(6) Activity Supervisors, as needed, will:

(a) Ensure a respirator specialist is appointed IAW AR 11-34 and this regulation.

(b) Ensure that proper RPE is utilized by the employees where required and that employees adhere to the instructions relative to the proper use and maintenance requirements of the RPE.

(c) Ensure users receive initial and periodic medical monitoring as recommended by the Occupational Health Physician.

(d) Ensure facilities for cleaning, maintenance, and proper storage of equipment are provided.

(e) Ensure workers are individually fit tested by respirator specialists.

(f) Ensure users are supplied appropriate RPE as specified by the Industrial Hygienist.

(g) Enforce the required exchange of RPE.

(h) Ensure personnel trained on RPE is documented and kept current by the respiratory specialist.

(i) Ensure compressed air cylinders are tested and maintained IAW 29 CFR 1910.134.

(j) Ensure breathing air will meet at least the requirements of the specification for grade D breathing air as described in ANSI/ Compressed Gas Association Specification G-7.1-per 29 CFR 1910.134.

(k) Ensure respirators are maintained IAW manufacturer instructions. Respirators used by more than one person shall be thoroughly cleaned and disinfected after each use.

(7) Respirator Specialists will:

(a) Train or ensure that the annual training of employees required to wear RPE meets the requirements of AR 11-34.

(b) Perform required fit testing when issuing respirators and annually thereafter or as defined by AR 11-34 or by the CFR for the particular contaminant. Fit testing will not be done until personnel have been medically approved by the Occupational Health Physician.

(c) Repair respirators using only designated parts per training and authorization or return to an authorized factory.

(d) Establish procedures for monitoring the breathing air quality for air supplied respirators and perform quality assurance evaluations IAW AR 11-34 at least annually for oil-less compressors; at least quarterly for other compressors to be used for Grade D air.

(e) Function as the central focal point for the maintenance of records for your activity/directorate IAW AR 11-34.

(f) Issue respirators and respirator user cards after determining that all requirements for medical evaluations, training, and fit testing are met.

(g) Maintain necessary inventory levels of respirators, accessories, and spare parts.

(h) Dispose of respirators per TB Med 502.

(8) Respiratory equipment users will:

(a) Wear the equipment IAW this regulation without variance.

(b) Inspect the respirator before each use. The inspection will include the visual parts of the headbands, mask, and valves for deterioration. Ensure the respirators have no holes, cracks, leaks, or other obvious defects. Perform leak tests as instructed.

(c) Notify immediate supervisor if it is suspected that RPE is needed or that the respirator is defective.

(d) Adhere to instructions governing the proper use, maintenance, and storage practices of the respirator.

(e) Store the respirators under the conditions that will protect them against dust, sunlight, deformation, and the concentration of contaminants and environmental conditions.

g. Supervisors/commanders will maintain written records on personnel trained and dates of training for at least the duration of employment of each covered Civilian or military worker as specified because of a specific contaminant exposure IAW AR 25-400-2 and TB Med 502 in the individual's personnel file. Respirator specialists will provide users with annual training to include:

(1) An explanation of the respirator hazard and what happens if the respirator is not properly used.

(2) Why respirators are needed for protection.

(3) Reasons for selection of a particular type of respirator.

(4) Capabilities and limitations of the selected respirator.

(5) How to don, wear, check for fit, and operate the respirator.

(6) How to recognize and handle emergency situations.

h. *Interchange of components.* Components of respirators will under no circumstance be interchanged or mixed with the different manufacturers of components, such as MSA face shield with Wilson headbands, etc. Design configurations of manufacturers do not permit mixing of components and may actually permit the entrance of contaminants.

i. *Storage of respirators.* Respirators placed at stations and work areas for emergency use will be stored in easily accessible compartments built for that purpose and clearly marked to indicate the contents. Routinely used respirators may be stored in plastic bags; however, respirators will not be stored in such places as lockers or tool boxes unless they are in containers or cartons.

j. *Inspection of respirators.* Respirator equipment users will inspect each respirator and SCBA routinely before and after each use. A respirator or SCBA that is not routinely used but kept ready for emergency use shall be inspected after each use and at least monthly to assure that it is in satisfactory working condition. Respirator inspection shall include a check of tightness of connections and the condition of the face piece, headbands, valves, connecting tube, and canisters. Rubber or elastomer parts shall be inspected for pliability and signs of deterioration. Stretching and manipulating rubber or elastomer parts with a massaging action will keep them pliable and flexible and prevent them from taking a "set" during storage. A record shall be kept of inspection dates and findings for respirators maintained for emergency use.