

**CHAPTER 27**

**WEAPONS OF MASS DESTRUCTION PERSONAL PROTECTIVE EQUIPMENT**

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## CHAPTER 27

### WEAPONS OF MASS DESTRUCTION PERSONAL PROTECTIVE EQUIPMENT

#### 1. INTRODUCTION.

a. Weapons of Mass Destruction Personal Protective Equipment. Departmentally issued Weapons of Mass Destruction (WMD) Personal Protective Equipment (PPE) is an ensemble which protects against numerous dermal and respiratory hazards. This can include chemical, biological, radiological, nuclear, and explosive contaminants. If utilized properly, WMD PPE can provide the user with limited protection and afford the opportunity to evacuate to safety during an incident involving the release of hazardous materials or WMD.

b. Purpose. This chapter outlines the capabilities, limitations, and deployment policy of the Department's WMD PPE and provides direction for the inspection, proper care, decontamination, and/or disposal of WMD PPE.

#### 2. POLICY.

##### a. Limitations of Weapons of Mass Destruction Personal Protective Equipment.

(1) Departmentally issued WMD PPE are not suitable for use in all situations and environments with all chemical and hazardous materials; however, these ensembles are the industry standard for law enforcement first responders and offer protection from numerous hazardous substances.

(2) The WMD PPE will burn and should not be worn near any possible ignition source, or in any potentially explosive or flammable environment.

(3) If the PPE is abraded, cut, torn, or punctured, do not use.

(4) If the PPE is damaged during use, retreat immediately to a safe environment and implement appropriate decontamination procedures.

(5) The PPE interferes with the natural regulation of body temperature. This can lead to a rise in core body temperature and heat stress. The maximum time the ensemble can be worn depends on such variables as the air supply, ambient condition, climate inside the ensemble, physical and psychological condition of the wearer, work rate, and work load. Persons who exhibit symptoms of heat stress, such as nausea, dizziness, high heart rate, or excessive heat buildup, should immediately seek a safe location, proceed with

decontamination measures, and remove the ensemble as quickly as possible after decontamination.

b. Limitations of Air Purifying Respirator. Air purifying respirators (APR) do not supply oxygen, they merely filter airborne contaminants. As such, an APR should not be used in oxygen deficient atmospheres or where hazard concentrations are immediately dangerous to life or health. Users should immediately seek a safe location if unknown or high levels of the hazard are encountered.

c. Issuance.

(1) Departmental WMD PPE will be issued to each uniformed employee. Ensemble contents include:

- (a) Cotton inspection gloves.
- (b) Butyl rubber gloves.
- (c) Latex boot covers.
- (d) Protective coveralls, including hood and boots.
- (e) Chemical tape.
- (f) An APR, which includes:
  - 1 At least one chemical, biological, radiological, and nuclear (CBRN) protective filter canister, labeled "CBRN."
  - 2 At least one orthochlorobenzalmalononitrile/chloroacetophenone filter canister, labeled "CN/CS."
  - 3 Voice amplifier (sergeants and above).
- (g) Tactical equipment bag.
- (h) Duffle bag.

(2) Uniformed personnel shall have their WMD PPE immediately available during their work shift.

d. Inspection.

(1) The WMD PPE should be inspected upon issuance and quarterly thereafter.

- (a) These inspections should include, but are not limited to, ensuring the WMD PPE components are present and, if unopened, the packages are not damaged.
  - (b) Coveralls shall be replaced within five years from the date of issuance. Coveralls can be requisitioned through appropriate channels using the CHP 41, Supply Requisition form.
  - (c) Orthochlorobenzalmalononitrile/chloroacetophenone and CBRN filter canisters shall be replaced prior to the expiration date indicated on the filter packaging.
  - (d) Quarterly inspections shall be conducted and documented as part of the quarterly departmental policy review.
- (2) Prior to donning the WMD PPE, an inspection should be conducted to ensure the integrity of the WMD PPE. This inspection should include the following steps:
- (a) Using an illuminated flashlight inside the coveralls, examine the outside of the garment for holes, cuts, or tears.
  - (b) Examine garment seam tape for lifts or inadequate seals.
  - (c) Examine zipper and zipper cover to ensure good working order.
  - (d) Examine butyl rubber gloves for holes, cuts, or tears.
  - (e) Examine latex boot covers for holes, cuts, or tears.
  - (f) Examine the APR for tightness of connections.
  - (g) Examine the APR for deterioration of face piece, head straps, valves, and gaskets.
  - (h) Don the APR and perform negative pressure check. Place and hold hand over filter canister inlet and inhale. Negative pressure should be felt inside the APR as the mask becomes tighter.
  - (i) Don the APR and perform positive pressure check. Place and hold hand over filter canister inlet and exhale. Positive pressure should be felt inside the APR; the seal between the APR and skin will be broken, causing the release of gas (breath).

(j) If any component of the WMD PPE fails inspection, immediately notify a supervisor to obtain a replacement.

e. Maintenance.

(1) The WMD PPE should be stored in a cool, dark, dry location, free of dirt and other contaminants. Temperatures above 120 degrees Fahrenheit, compression under heavy weight, and sharp edges can degrade materials in the WMD PPE.

(2) The WMD PPE shall be stored in the tactical equipment bag and duffle when not in use.

(3) All WMD PPE must be inspected after each use and replaced if it fails inspection.

(4) If exposed to hazardous materials, ensembles must be decontaminated or disposed of properly.

(5) The APR shall be cleaned after each use using a non-alcohol sanitizing solution or mild detergent with warm water.

(a) Prior to cleaning, remove any attached filter canisters.

(b) The APR may be air-dried or dried using a soft cloth. Do not air-dry in direct sunlight as overexposure may deteriorate APR materials and compromise performance.

(c) Inspect APR valves and gaskets to ensure they are in working order.

f. Donning.

(1) Don APR and check its function.

(2) If possible, remove all jewelry and personal items, including pens, badges, etc.

(3) Open protective suit closure.

(4) If possible, have an assistant help with donning.

(5) While sitting, insert feet into protective suit and pull suit up to hips.

(6) Insert feet into latex boot covers.

- (7) Insert hands into cotton glove liners.
- (8) Insert hands into butyl gloves.
- (9) Place one hand into suit sleeve and pull garment to shoulder.
- (10) Place other hand into remaining suit sleeve and pull garment over shoulders.
- (11) Place attached hood over the head and close garment zipper.
- (12) Fold zipper flaps to seal zipper.
- (13) Seal all seams and openings (hood to APR, sleeves to gloves, pants to boot covers) with chemical tape.

g. Field Decontamination.

- (1) Ensembles exposed to hazardous materials or WMD must be decontaminated prior to doffing. The purpose of field decontamination is to allow the user to doff the ensemble without being harmed by contaminants on the ensemble surface.
- (2) Upon reaching the decontamination area, the user shall continue to wear the APR until the rest of the ensemble has been completely doffed and removed from the area.
- (3) Field decontamination areas are generally coordinated and operated by allied agencies.

h. Doffing.

- (1) After field decontamination of the protective suit, an assistant should help the wearer during the doffing procedure. If the ensemble has been contaminated, the assistant should wear protective clothing and an APR.
- (2) While the wearer stands, the assistant should open the protective suit closure, and then peel the suit downward, away from the wearer's shoulders and off the arms.
- (3) The protective suit should then be lowered below the hips and the wearer should sit down. The assistant should then remove the boots/covers, pull the protective suit off the legs, and place it in a suitable location prior to discarding.

Contaminated ensembles shall be discarded or disposed of in the same manner as any other hazardous waste.

(4) Once the protective suit has been removed, the wearer can doff the APR.

i. Training.

(1) Initial WMD PPE training shall be incorporated into the Academy cadet curriculum.

(2) Annual refresher training relating to WMD PPE shall be conducted during First Responder Operations Refresher and Hazardous Materials Incident Command refresher courses.