

UNITED STATES MARINE CORPS  
Basic Officer Course  
The Basic School  
Marine Corps Combat Development Command  
Quantico, Virginia 22134-5019

B5705

**NBC PROTECTIVE MEASURES**Student Handout**1. First Aid for Toxic Chemical Agent Poisoning**

a. Nerve agents. It is imperative that nerve agents in contact with the skin or eyes be neutralized or removed immediately if the individual is to avoid becoming a casualty. These agents are lethal and are rapidly absorbed by the eyes and through cuts in the skin. They are absorbed through undamaged skin somewhat slower. Clothing contaminated with nerve agents must not be allowed to remain in contact with the skin. It is important to know the symptoms for nerve agent poisoning. If a Marine has most or all of the symptoms listed, he must receive first-aid:

- Unexplained runny nose
- Unexplained sudden headache
- Excessive flow of saliva (drooling)
- Tightness in chest (difficult breathing)
- Difficulty seeing (reduced vision)
- Muscular twitching around area of exposed skin
- Stomach cramps
- Nausea

Advanced stages of nerve agent poisoning will consist of most of the above symptoms and include one or more of the following:

- Strange/confused behavior
- Gurgling sounds produced when breathing
- Severely pinpointed pupils
- Red eyes with tears
- Vomiting
- Severe muscular twitching
- Involuntary urination and defecation
- Cessation of breathing

b. First aid for nerve agent poisoning. Nerve agent poisoning requires immediate first aid treatment. Each Marine who has any possibility of being exposed to nerve agents should receive up to three (3) nerve agent antidote kits (NAAKs), Mark I, for this purpose. If Marines are to survive a nerve agent attack, immediate treatment with the NAAK is required. The NAAK consists of one small autoinjector containing atropine and a second autoinjector containing pralidoxime chloride. A plastic clip holds the two injectors together. If a Marine experiences the symptoms for nerve agent poisoning he should do the following:

- (1) Put on the field protective mask.
- (2) Inject one thigh with the small autoinjector from the NAAK (atropine). Hold the injector against the thigh for at least 10 seconds. Remove the injector.
- (3) Immediately inject the thigh with the second, larger injector (pralidoxime chloride). Hold the injector against the thigh for at least 10 seconds.

**NOTE:** If atropine is injected into the body, pralidoxime chloride must immediately follow. Atropine is a powerful stimulant and may cause severe injury or death if the pralidoxime chloride is not injected to lessen the effects.

(4) Massage the injected area if time permits and your suit is not contaminated. Once the injectors are used, place each needle through the pocket flap of the overgarment, bending each needle to form a hook.

(5) If symptoms persist or recur, wait 10 to 15 minutes and repeat both injections. Repeat again if needed. Allow 10 to 15 minutes between each set of injections. Do not administer more than three NAAK sets. Medical personnel must authorize the administration of more than three sets.

**NOTE:** If the heart beats very rapidly and the mouth becomes very dry within five minutes after the administration of the first NAAK, DO NOT give another set of injections. This may indicate a serious reaction.

(6) If a fellow Marine experiences severe symptoms from nerve agent poisoning and is unable to administer self-aid, the five buddy-aid measures should be taken:

- (a) Mask the casualty.
- (b) Using the casualty's NAAK, administer three sets immediately and in rapid succession into the thigh muscle of either leg. Do not wait between injections.
- (c) Administer the back-pressure armlift method of artificial respiration if breathing is difficult or has ceased.
- (d) Hook the expended autoinjectors to the casualty's overgarment pocket flap.
- (e) Seek medical attention as soon as possible.

c. **Blister agents.** Blister agents may not cause casualties immediately. Symptoms may take several hours or days to appear. If blister agents contact the skin or eyes, remove the agents immediately. To remove agents from the eyes, flush repeatedly with plain water and decontaminate the skin using the M258A1 kit. If severe blisters form, seek medical attention as soon as possible and cover the area with a sterile gauze or clean cloth to prevent infection. Symptoms of Blister Agents:

- Nitrogen Mustard - no early symptoms
- Mustard/Lewisite - searing of the eyes and stinging of the skin.
- Phosgene Oxide - irritation of the eyes and nose. Temporary blindness.
- Additional symptoms related to all blister agents include vomiting, diarrhea, blisters on skin and infections.

d. **Blood agents.** Mild blood agent symptoms can progress to death within ten minutes. Inhalation of a high dose can cause an individual to become unconscious and die within two minutes. There is no self-aid or buddy-aid treatment for blood agents. Victims should seek medical attention. Additional Symptoms Related to Blood Agents:

- Giddiness (Happiness)
- Nausea
- Headache
- Lips and skin turn pink to red
- Convulsions
- Coma

e. **Choking agents.** These toxic chemicals produce casualties by inhaled vapors. Ordinary field concentrations do not cause death, but prolonged exposure to high concentrations of the vapor and neglect or delay in masking can be fatal. Maximum damage will occur between 12 to 24 hours after exposure. No self-aid or buddy-aid treatment exists for choking agent symptoms. If only minimum amounts were inhaled, the Marine may continue normal duties. If definite symptoms occur, the Marine should keep warm and seek immediate medical attention and rapid evacuation to an aid station. Symptoms of Choking Agents:

- Immediate irritation of the respiratory passages
- Smarting and watering of the eyes
- Violent coughing and retching
- Profuse spitting
- Pulmonary edema

## 2. **Decontamination of Skin Using the M258A1 Kit**

a. **M258A1 decontamination (decon) kit.** The M258A1 decon kit provides the best means of skin decon. Instructions for its use are printed on the outside of the kit. The solutions in the kit are caustic, so keep them out of eyes, nose, wounds, or mouth. The kit is designed for chemical decon and comes in a hard plastic case containing three sets of foil-packaged decontaminating wipes. These wipes contain solutions that neutralize most nerve and blister agents.

b. **Use of M258A1 decontamination (decon) kit.** Directions for the use of the M258A1 kit are located on the packets. Note that wipe 1 has a tab on the top of the packet for easy identification during reduced visibility. The kit may be used to decontaminate the chemical protective gloves, hood, field protective mask, helmet and small weapons. Decon wipe 1 works better against G-type nerve agents but can burn skin. Decon wipe 2 works better against VX-type nerve agents and blister agents. Decon

wipe 2 is not as caustic to skin and may help neutralize some of the caustic compounds in wipe 1.

### 3. **Chemical and Radiological Detection Equipment**

a. Chemical detection equipment. There are three basic devices used by the individual Marine to detect toxic chemical agents.

(1) ABC-M8 VGH chemical detector paper. M8 paper detects and identifies liquid agents. The paper comes in booklets of 25 sheets. The M8 paper is used to detect and identify liquid V- or G-type nerve agents or H-type blister agents. The sheets are impregnated with chemical compounds that turn dark green, yellow, or red upon contact with a liquid chemical agent. A color chart in the booklet helps determine the type of agent contacted. The paper must touch a liquid agent, as it does not detect vapor. M8 paper is also provided in the M256A1 chemical agent detector kit.

(2) M9 chemical agent detector paper. M9 paper is used to detect the presence of liquid chemical agents. The M9 does not identify agents nor does it detect chemical agent vapors. The paper indicates the presence of a nerve (G or V) or blister (H or L) agent by turning a red or reddish color. Because of this, read M9 paper with only a white-light source. The self-adhesive M9 paper attaches to most surfaces and can be attached to the body or equipment in order to detect liquid chemical agents in the area of movement.

(3) M256A1 chemical agent detector kit. The M256A1 kit is issued at squad or section level. It provides a squad level ability to detect and identify field concentrations of nerve, blister, or blood agent vapors. It differentiates between classes of agents and helps determine when unmasking may be safe after a chemical attack. The kit consists of 12 individually packaged samplers/detectors, a set of instruction cards, and a packet of ABC-M8 VGH chemical agent detector paper. These components come packed in a small, compact, plastic case. Each sampler/detector detects harmful vapor concentrations of nerve, blister and blood agents in about 15 minutes. It changes color upon contact with chemical agents at concentrations hazardous to unmasked personnel. The buddy system should be used when employing this kit; one Marine reads the instructions while the other Marine performs the steps.

b. Radiological detection equipment. Radiation cannot be detected by the senses. The two types of equipment used for the detection of nuclear radiation are dosimeters and radiac meters. Dosimeters measure total radiation dose. Radiac meters detect the presence of radiation on personnel, food and equipment or measure the intensity, or dose rate, of radiation over a large area.

(1) IM-143PD dosimeter. The direct reading dosimeter is a cylindrical-shaped black metal tube about the size of a fountain pen. The dose that the wearer has been exposed to is read directly from the scale contained in the dosimeter. Charging this dosimeter, or setting it back to zero, is accomplished with a charger device, the PP-345E/PD or PP-4276/PD radiac-detector charger. These pocket dosimeters are authorized and maintained at the battalion level.

(2) AN/VDR-2 radiac meter. This radiac set measures very small or large dose rates and is used to monitor personnel, food and equipment for contamination or to measure dose rates in local areas. This device resembles a standard Geiger counter and is equipped with a probe to facilitate monitoring. The probe is held near the surface to be monitored. If contamination is present, an increase in the number of clicks will be heard in the earphones.

### 4. **Chemical Protective Clothing**

a. Chemical protective overgarment (CPOG). Chemical protective clothing falls within two major divisions; permeable and impermeable. Permeable clothing allows air and moisture to pass through the fabric. Impermeable clothing does not. An example of impermeable clothing is the butyl-rubber CBR (chemical, biological, radiological) suits used by the Soviets. In the U.S., we use permeable suits. The overgarment material consists of charcoal-impregnated polyurethane foam. The overgarment is water repellent and should be worn as an outer garment. In high temperatures or when engaged in heavy work, however, Marines may wear the overgarment directly over their underwear. The overgarment is not designed to be decontaminated or reimpregnated for reuse.

b. Chemical protective glove set. The gloves protect against liquid chemical agents and vapor hazards. They also keep biting insects (possible disease vectors) and radioactive fallout away from the hands. Each glove set consists of an outer glove for protection and an inner glove for perspiration absorption. The outer gloves are made of an impermeable, black, butyl rubber. The inner gloves are made of thin white cotton. If either outer glove is punctured or torn, replace the glove.

c. Chemical protective footwear covers. The protective footwear is worn over the combat boots. Overboots protect feet from contamination by all known chemical agents, vectors (insects), and radiological dust particles. The overboots are made of impermeable butyl rubber. If an overboot is punctured or torn, replace it.

### 5. **Limitations of Chemical Protective Clothing**

a. Heat. Individuals operating at moderate to heavy work while in chemical protective gear are prone to heat-related casualties.

b. Fatigue. Individuals in full chemical protective clothing and equipment will tend to experience fatigue resulting from such items as mask-breathing resistance, increase in body temperature from work energy and solar heat, and psychological and physiological stress.

c. Senses. Individuals who are required to perform duties involving the senses or related functions such as manual dexterity, visual acuity, and voice communications will operate at varying decreased levels of efficiency, depending on training and proficiency.

d. Personal needs. Individuals cannot be in full chemical protection for indefinite periods and still attend to certain personal needs such as eating, caring for wounds, shaving, and the elimination of body waste.

(1) Drinking. The need to drink liquids should never be ignored or postponed, especially in a chemical environment. Your protective clothing can cause dehydration to occur more rapidly than normal.

(2) Use of the head. There is obviously a great deal of danger in removing chemical protective clothing in order to use the head. Great care must be taken to decontaminate any skin or undergarment that may become contaminated during this necessary process.

(3) Sleeping. In an NBC environment you will need to sleep with your mask and protective clothing on. Use the buddy system to periodically check clothing, mask, and hood to ensure they do not become dislodged while sleeping.

6. **Mission Oriented Protective Posture (MOPP)**. Standardized MOPP levels allow commanders to easily increase or decrease levels of protection. Because the levels are standardized and all Marines understand them, commanders can order increased or decreased protection without providing a long explanation.

a. MOPP 0. The MOPP gear is readily available (that is, within the work area, vehicle, fighting position, or the like) and the protective mask is carried. MOPP Zero is appropriate when the enemy has an NBC employment capability but chemical warfare has not begun or when troops are first deployed outside the theater of operation. MOPP Zero allows Marines to be free of the burden of wearing the CPOG and mask and yet have them readily available.

b. MOPP 1. The CPOG, jacket and blouse, is worn. In hot weather, the CPOG can be worn directly over the underwear and the jacket may be left open for ventilation, but the trousers should be kept closed. For Marines in MOPP One, the reaction time needed to adopt MOPP Four protection against an attack is cut in half--from eight minutes to four.

c. MOPP 2. Chemical protective overboots are added. The overboots take about three to four minutes to put on; once a Marine is in MOPP Two, he can go to higher levels of MOPP in a matter of seconds. In hot weather, the jacket may be left open for ventilation, but the trousers remain closed.

d. MOPP 3. The protective mask and hood are added making protection almost complete, but interference with the ability to perform becomes significant. The mask and hood restrict vision; heat stress becomes a major factor; and a greater risk of heat exhaustion exists. In hot weather, Marines may open the overgarment jacket and roll the hood for ventilation, but the trousers should remain closed.

e. MOPP 4. Total protection. Hands are protected with the rubber gloves and the hood and jacket are completely closed up.

f. MOPP is not a fixed or rigid system. Flexibility is the key to providing maximum protection with the lowest risk possible, while still allowing mission accomplishment. Flexibility allows subordinate commanders to adjust the amount of MOPP protection required in their particular situations and still maintain combat effectiveness.

g. Summary of MOPP levels

	MOPP	Overgarments	Overboots	Mask/Hood	Gloves
avail	0	Readily avail	Readily avail	Carried	Readily
Carried	1	Worn	Carried		Carried
Carried	2	Worn	Worn	Carried	

## NBC PROTECTIVE MEASURES

B5705

3	Worn	Worn	Worn
Carried			
4	Worn	Worn	Worn
Worn			

7. **Hasty MOPP Gear Exchange.** Hasty decon is a squad-size (occasionally platoon-size) operation which sustains the combat potential of a contaminated force by limiting spread of contamination. MOPP gear exchange removes nearly all liquid or solid contamination from the individual and his equipment. After the exchange, Marines may be able to move away from their equipment to contamination-free areas and temporarily reduce MOPP levels. The buddy system is utilized during hasty MOPP gear exchange. The procedures must take place in a "safe" or uncontaminated area. MOPP gear exchange begins when a company or battalion supply vehicle unloads replacement overgarments, decontaminates, and equipment.

a. **Step 1. Decontaminate gear.** Performing this step removes gross contamination from individual gear (weapon, helmet, load-bearing equipment, and mask carrier).

(1) Procedures

(a) Chemical/biological. Cover your gear with super tropical bleach (STB) dry mix and brush or rub it into the material. Gently shake off any excess. Set aside gear on an uncontaminated surface (plastic, poncho, or similar material).

(b) Radiological. Brush or wipe radiological contamination from your individual gear. Wash with warm, soapy water (if available). Set aside to dry on an uncontaminated surface (plastic, poncho, or similar material).

(2) Risks. If you do not do this step, you will transfer contamination from your individual gear to your new MOPP gear. You will have to change MOPP gear again within 24 hours, even if you don't receive any more contamination. If chemical/biological contamination is not removed from individual gear, the weathering process will be delayed. If radiological contamination is not removed, your radiation exposure will increase over time, prolonging the time you must remain in MOPP gear.

b. **Step 2. Decontaminate hood.** Performing this step removes the gross contamination from the mask and hood. The squad leader and companion or two personnel from the squad stand in the center of the circle. They supervise the other teams while they go through the technique themselves.

(1) Procedures

(a) Chemical/biological. Loosen your buddy's neck cord and hood straps from underarms and reattach velcro patches on hood. Using M258A1 kit, decontaminate the hood and exposed parts of your buddy's mask. Use the decon 2 wipe first, then the decon 1 wipe. Start with the mask eye lens outserts, wiping from the top of the hood down. Using the decon 1 wipe last will get rid of any residue left on the lenses from the decon 2 wipe. The lens will not cloud up. When you have finished wiping your buddy's mask, your buddy uses a decon kit to decontaminate his own gloves. Note: The mask is never removed in a hasty MOPP exchange.

(b) Radiological

1 Loosen your buddy's neck cord and hood straps from underarms and reattach velcro patches on hood. Wipe your buddy's mask and hood with a sponge dipped in hot, soapy water. Rinse with a sponge dipped in clean water. Dry with paper towels or rags. The buddy does his or her own gloves. Cool, soapy water is not as effective for removing contamination, but can be used if you scrub longer. If no water is available, skin kits may be used.

2 Roll your buddy's hood. Leave zipper closed and lift the hood straight up off your buddy's shoulders by grasping the straps. Pull the hood over the head until most of the back of the head is exposed. Do not pull the hood completely over your buddy's face. Then roll the hood starting at the chin and working around the mask. Roll it tightly, without pulling it off the back of the head. Do not reverse roles. Only your buddy's hood will be decontaminated and rolled at this time.

(2) Risks

(a) For chemical/biological contamination. If this step is not done, small amounts of chemical/biological contamination may still be on the hood and mask. You will risk spreading contamination to your skin during the undressing.

(b) For radiological contamination. If you do not do this step, excessive radiation exposure could occur from contaminants on the hood and mask. You also risk spreading contamination to your skin during the undressing.

c. **Step 3. Remove overgarments.** Performing this step limits the spread of agents and helps to prevent agents from penetrating through to the skin or undergarments.

(1) Procedures. Unfasten the jacket snaps on the back and front of your buddy's jacket as well as the cord and zipper. Pull the jacket off, one arm at a time. Turn jacket inside out. Have your buddy make a fist as each sleeve is pulled off to prevent the gloves from coming off. Place jacket on the ground nearby, black side up. Your buddy will use it to stand on later while redressing. Open the trouser cuffs, the waist snap, and if necessary, the waist tabs on your buddy's trousers. Grasp the trousers by the cuff while your buddy pulls one leg at a time from trousers. Discard the trousers. Do not reverse roles. Only your buddy will remove overgarment at this time.

(2) Risks. If you do not do this step, the agent will penetrate your overgarment. The more on the overgarment, the quicker it will penetrate. If you do not do this step properly, you risk spreading the agent onto your garments or skin: you will become a casualty.

d. **Step 4. Remove overboots and gloves.** Performing this step removes contaminated gloves and overboots (footwear covers) to limit the spread of contamination.

(1) Procedures. Have your buddy stand next to his or her jacket. Untie or cut the strings of your buddy's overboots. Pull off the overboots, one at a time. As you remove each boot, have your buddy step onto his or her jacket. Have buddy remove his or her gloves. Help, if necessary, so your buddy does not touch the outside of the gloves with bare hands. Do not reverse roles. Only your buddy will remove these items at this time.

(2) Risks. If this step is not done, it is quite probable the agent will be transferred to clean overgarments, Step 5. It is probable that the agent will get on your skin because overboots and gloves tear, rip, puncture, and wear out.

e. **Step 5. Put on overgarment.** Performing this step restores MOPP protection.

(1) Procedures. Open a package of new overgarment, but do not touch the garment. Have your buddy reach into the package and pull out the overgarment without touching the outside of the package. Your buddy puts on the trousers and the jacket; fastens the overgarment; and leaves trouser legs open. Do not reverse roles. Only your buddy will put on clean garments at this time.

(2) Risks. If you do not do this step properly, you risk contaminating your new overgarments or your skin.

f. **Step 6. Put on overboots and gloves.** Performing this step restores MOPP protection.

(1) Procedures. Pick up a package of clean overboots and open it without touching the overboots inside. Have your buddy reach into the package (without touching the outside of the package), remove the overboots and put them on, and fasten trouser legs. Open a package of clean gloves without touching the gloves inside. Have your buddy remove them from the package (without touching the outside of package) and put them on. Do not reverse roles. Only your buddy will put on clean overboots and gloves at this time.

NOTE: Gloves and boots will have a light powdery coating.

(2) Risks. If you do not do this step, you risk becoming a casualty by touching contamination remaining on unit equipment. If you do not do this step properly, you risk spreading contamination to your skin or undergarments.

g. **Step 7. Secure hood.** Performing this step restores MOPP protection.

(1) Procedures. Decontaminate your rubber gloves with an M258A1 skin decon kit. Once gloves are decontaminated, unroll your buddy's hood and attach the straps and tighten the neck cord. Buddy checks all zips and ties on the hood and overgarment to ensure they are closed.

(2) Risks. If you do not do this step, you risk transferring contamination to the inside of the hood.

h. Reverse roles. Repeat steps 2 through 7. This time have your buddy help you through the steps.

i. **Step 8. Secure gear.** Performing this step prepares the Marine to return to battle.

(1) Procedures. Secure individual gear. Put it back on and move to the assembly area. Use the buddy system to check fit of all secured gear.

- (2) Risks. None

8. **Personnel Decontamination Station (PDS)**

a. Set-up considerations. In an emergency, it may be necessary to establish a personnel decontamination station, when a bath unit or a mobile decontaminating unit is not available. The facility will need to provide fresh clothing, equipment, and water. An uncontaminated area near a source of water (such as a stream, well or water storage facility) is selected, if possible. If the area is contaminated, it is decontaminated by turning or removing a top layer of soil, by adding a clean layer of soil or sand, or by using available decontaminating agents. If possible, the area selected should have overhead cover to give protection against chemical attacks.

b. Procedures. The following is a brief discussion of the steps which are performed at each station of a PDS.

(1) **Station 1: Individual gear decon**. Performing this step removes as much contamination as possible from the individual equipment (782 gear, mask carrier, helmet, and weapon).

(2) **Station 2: Overboot and hood decon**. Performing this step neutralizes gross contamination on overboots and lower trouser legs. It removes gross contamination from hood and mask.

(3) **Station 3: Overgarment removal**. Performing this step removes contaminated overgarments before agent penetrates overgarment material and touches undergarment and skin.

(4) **Station 4: Overboots and gloves removal**. Performing this step removes contaminated overboots and gloves to limit the spread of contamination.

(5) **Station 5: Monitor**. This step identifies contamination on personnel, provides spot decon capability, and provides medical aid as required.

(6) **Station 6: Mask removal**. This step removes the mask without contaminating the Marine. The mask is taken to a mask decon point; limiting agent transfer at the site.

(7) **Station 7: Mask decon point**. This step removes as much contamination from the mask as possible.

(8) **Station 8: Reissue point**. This step re-equips Marines so that they have a complete, uncontaminated MOPP suit.

9. **Individual MOPP Gear Exchange (Emergency Method)**. It may become necessary for an individual Marine to exchange MOPP gear when no one can assist. This may be the case if a Marine's buddy is wounded or unable to assist. This method is only used in extreme emergencies since there is a high risk of transferring contamination from the overgarment to the skin or to the undergarments.

a. **Step 1. Decontaminate gear**. Performing this step removes contamination from individual gear; i.e., weapons, helmet, load-bearing equipment, etc.

(1) Procedures

(a) Chemical/biological. Use field expedient absorbent such as sand, dirt, or rage to remove the gross liquid contamination. Use your M258A1 decon kit to decon your individual gear thereafter.

(b) Radiological. Brush or wipe radiological contamination from your gear. Wash with soap and water if available and let dry on an uncontaminated surface. Use the M258A1 decon kit if soap and water is not available.

(2) Risks. Same as for hasty MOPP gear exchange.

b. **Step 2. Prepare for decon**. Performing this step makes it easier to allow a Marine to remove their overgarment trousers and boots. It also allows the hood to be rolled easier.

(1) Procedures

(a) Unfasten shoulder straps on the hood and pull them over the shoulder and reattach them to the velcro in front of the hood. Unfasten the trouser legs of the overgarment. Roll a cuff in the overgarment leg not to extend past the top of the overboot. Unfasten the overboots.

c. **Step 3. Decon hood**. Performing this step removes gross contamination from the mask and hood.

(1) Procedures

(a) Chemical/biological. Use the M258A1 decon kit to decon the hood and exposed parts of the mask. Start with the eye len outserts and then wipe from top to bottom. When finished decontaminating the mask, decon your gloves so you can roll up the hood. Roll the hood by grasping the straps and lift the hood until most of the back of your head is exposed. Tuck the hood in starting at the chin and working around until the hood stays secure up off the shoulders.

(b) Radiological. Wipe the mask and hood with a sponge dipped in hot, soapy water. Rinse with sponge dipped in clean water. Dry with paper towels or rags. use M258A1 skin decon kit ONLY if no water is available. If water supply is limited, Marines may use some of their drinking water (from a canteen) with a wet sponge or cloth.

d. **Step 4. Remove overgarment/overshoes.** Performing this step limits the spread of agents and helps prevent agents from penetrating through to skin or undergarments.

(1) Procedures (chemical/biological). Unfasten the overgarment trousers. Untie the drawcord at the bottom of the jacket. Unfasten the velcro at the wrist and then refasten. Unfasten the velcro closures over the zippered front of the jacket and unzip the jacket. Grasp the front of the jacket and pull the jacket back until it is off the shoulders. Put your arms behind your back and work your arms out of the sleeves. Be careful not to let the outside of the jacket touch your body. When the jacket is off, lay it on the ground with the black side up. Carefully unfasten and unzip the trousers. Do not loosen the waist tabs. Break the seals on the overshoes by alternately stepping on the heels and pulling up the foot. Grasp the trousers and push them down to the knees. Walk out of the trousers/GVOs taking care not to step on the contaminated side of the overgarment. If wearing overboots, remove trousers first, then step out of overboots onto the black side of jacket. Step onto the jacket wearing the mask, undergarments and gloves.

(2) Risks. If you do not do this step, the agent will penetrate your overgarment. The more agent on the overgarment, the quicker it will penetrate. If you do not do this step properly, you risk spreading the agent onto your undergarments or skin, causing casualties.

e. **Step 5. Remove gloves.** Performing this step removes contaminated gloves and limits the spread of contamination.

(1) Procedures. Before removing your gloves, decontaminate your gloves and around the edge of the package (new gloves, overgarments, and overboots) with the M258A1. Once you have opened the new packages, remove your old gloves. Hold the finger tips of the glove and partially slide the hand out. When fingers of both hands are free hold arms away from body and let the gloves drop off.

(2) Risks. If this step is not done, it is quite probably the agent will be transferred to clean overgarments (step 6). It is probably that the agent will get on your skin because gloves tear, rip, puncture, and wear out.

f. **Step 6. Put on overgarment.** Performing this step restores MOPP protection.

(1) Procedures. Carefully reach into the package and remove the overgarment. Then begin redressing procedures. Put on trousers and jacket. Fasten the overgarment, but leave trouser legs open (until you put on new overboots).

(2) Risks. If you do not do this step properly, you risk contaminating your new overgarments or your skin.

g. **Step 7. Put on overboots and gloves.** Performing this step restores MOPP protection.

(1) Procedures. Carefully reach into the package and remove the overboots one at a time. Put them on. Remove your gloves from their package without touching the outside. Put them on and fasten your trouser legs.

(2) Risks. If you do not do this step, your risk becoming a casualty by touching contamination remaining on unit equipment. If you do not do this step properly, your risk spreading contamination to your skin or undergarments.

h. **Step 8. Secure hood.** Performing this step restores MOPP protection.

(1) Procedures. Decontaminate your rubber gloves with an M258A1 skin decon kit. Unroll your hood, attach the straps, and tighten neck cord. Check all zippers and ties on the hood and overgarment to ensure they are closed.

(2) Risks. If you do not do this step, you risk transferring contamination to the inside of the hood.

i. **Step 9. Secure gear.** Performing this step prepares the Marine to return to battle.



