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Interim Guidelines for Personal Protection Equipment and Decontamination for Public Safety First Responder Personnel (Including Police, Sheriff, Fire and Emergency Medical Service) to use in Responding to Chemical Terrorist Situations

The site of any potential chemical terrorism scenario will have three safety zones. All three zones are within an isolation zone that excludes public access. **Personnel trained at first responder awareness/operations level should isolate/deny entry to contaminated zones and call for HazMat response.**

Hot Zone	The exclusion zone with actual or potential contamination and the highest potential for exposure to chemical agents. Only rescue personnel outfitted in proper personnel protective equipment are allowed inside the hot zone.
Warm Zone	A limited access area where decontamination activities take place. The warm zone is the area uphill and upwind of the hot zone.
Cold Zone	The safe area that is free from contamination and may be used as a support zone for planning and resource staging. Full medical care can be administered in this area.

PERSONAL PROTECTIVE EQUIPMENT: At a suspected chemical terrorism site, personal protective equipment (PPE) for First Responder personnel in these zones should be as follows:

Zone Type	Personnel	PPE
Hot	Chemical Specialist Hazard Technician Responders Patient Rescuers	All personnel: Level A · Respirator: SCBA · Suite: Vapor barrier HazMat suit with all cuffs and closures taped · Gloves: Butyl outer, SilverShield inner glove · Boots: Chemical resistant
Warm	Decontamination Personnel	All personnel: Level B · Respirator : SCBA · Suit: liquid barrier/splash resistant with all cuffs and closures taped · Gloves: Butyl outer gloves, SilverShield inner glove · Boots: Chemical resistant boots
Cold	Command Post Team Leader Site Safety Officer Decontamination Officer Emergency Medical Personnel Field Medical Team Patient Transporters	Most Personnel: Level D – No PPE required Patient Care Personnel: Level C Patient off gassing from exhalation and body secretions, or handling patients not fully decontaminated may require respiratory protection. · Eye/hand protection · Respirators: Air purifying respirator ^{1,2} with appropriate cartridge. · Splash resistant clothing

¹Powered Air Purifying Respirator designed for First Responders at chemical spills or terrorist attacks, including (but not limited to): 3M GVP-4M with GVP-443 cartridge, MSA Optimair 6A with GMC-H cartridge, Survivair 540084 with 158300 cartridge.

²There is no National Institute of Occupational Safety and Health (NIOSH) respirator approval schedule for chemical warfare agents. The selected respirator/cartridge combination should be designed for First Responders against threats resulting from chemical spills or terrorist attacks. Masks designed for these purposes include (but may not be limited to):

- 3M Full Facepiece FR=M40 with FR-C2A1 or FR-64 cartridges or canisters,
- New Pac Safety AB Facemask CB40 with ITL/C2A1/FR canisters,
- Tradeways LTD. M40A1 or M42A2 Protective Mask with C2A1 filter canister,
- Draeger Safety, Inc. Karetta M Mask (#R51372)with NBC Escape Canister (#6736543)

DECONTAMINATION: EMERGENCY PERSONNEL AND PATIENTS

Skin: Immediate copious water flush followed by soap and water wash. Do not use hypochlorite on skin.

Eyes: Immediate copious flush with normal saline, water or eye solutions.

Wound: Immediate copious flush with surgical irrigation solution, normal saline or water flush.

Clothing: If clothing exposed to liquid, remove all clothing, discard as contaminated waste; if clothing exposed to vapor, remove outer clothing, discard as contaminated waste.

DECONTAMINATION: EQUIPMENT AND CHEMICAL RESISTANT CLOTHING/BOOTS/GLOVES:

Use 5% hypochlorite bleach (undiluted) followed by soap and water for military grade chemicals. Hypochlorite rapidly breaks down nerve agents; other chemicals will break down more slowly. Do not use hypochlorite for ammonia or for an unidentified contaminate – use water.

DISPOSAL: Place contaminated disposable PPE and other small items not able to be decontaminated on site in a container (e.g., drum or pail) with a plastic liner. Both the container and the liner should be able to be sealed. Label the container with the words "Contaminated PPE". Include the identity of other contaminated materials, the name of the contaminate if known, the date, the location where the PPE waste was generated, and a contact name and phone number when labeling the container. Contact the Oregon Department of Environmental Quality Emergency Response Program duty officer through the Oregon Emergency Response System at 1-800-452-0311 for management and disposal instructions.

RESOURCES:

Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report, Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response, <http://www.bt.cdc.gov/documents/btstratplan.pdf> , April 2000

Minnesota Department of Public Safety, Emergency Response Commission. Scene Safety, http://www.erc.state.mn.us/hazmat_info/scene_safety.html

National Institute for Occupational Safety and Health (NIOSH), Emergency Response Resources, <http://www.cdc.gov/niosh/emres01.html>

United States Army Medical Research Institute of Chemical Defense (USAMRICD), Field Management of Chemical Casualties Handbook, Second Edition, http://ccc.apgea.army.mil/reference_materials/handbooks/fmcc/ncohandbook2000.htm , July 2000

United States Army Medical Research Institute of Chemical Defense (USAMRICD), Medical Management of Chemical Casualties Handbook, http://ccc.apgea.army.mil/reference_materials/handbooks/RedHandbook/001TitlePage.htm , August 1999

United States Army Soldier and Biological Chemical Command (SBCCOM), Chemical Weapons Improved Response Program, Guidelines for Responding to a Chemical Weapons Incident, http://www2.sbccom.army.mil/hld/downloads/cwirp/cwirp_guidelines_responding_cw_incident.pdf, November 2000.

United States Army Soldier and Biological Chemical Command (SBCCOM), Chemical Weapons Improved Response Program, Guidelines for Use of Personal Protective Equipment by Law Enforcement Personnel During a Terrorist Chemical Agency Incident, http://www2.sbccom.army.mil/hld/downloads/cwirp/ppe_law_enforcement_ca_incident.pdf, June 2001

United States Department of Health and Human Services, Metropolitan Medical Response System Field Operations Guide, http://ndms.dhhs.gov/CT_Program/Response_Planning/response_planning.html, November 1998

United States Environmental Protection Agency, Superfund Emergency Response Program, Personal Protective Equipment, <http://www.epa.gov/superfund/programs/er/hazsubs/equip.htm>

United States Environmental Protection Agency, Superfund Emergency Response Program, Safety Zones, <http://www.epa.gov/superfund/programs/er/hazsubs/safety.htm>