

AREA 3 REGIONAL WEAPONS OF MASS DESTRUCTION AND  
HAZARDOUS MATERIALS RESPONSE TEAM, INCORPORATED  
TEAM NAME: TASK FORCE 3

STANDARD OPERATING GUIDELINES

TASK FORCE 3-SOG-R11

HAZMAT INCIDENT DECONTAMINATION

PURPOSE

To establish procedures to be used for DECONTAMINATION at the scene of a HAZMAT incident.

DIRECTION AND CONTROL

Authority

These guidelines have been developed and approved by the Board of Directors. The Administrator/Treasurer shall review these procedures as needed, but not less than annually, and submit any changes to the Board of Directors for approval.

Responsibility

The Administrator/Treasurer, Membership Committee, and Training Officer of TASK FORCE 3 are responsible for implementation of these procedures.

Maintenance

These procedures shall be effective upon approval of the Board of Directors and shall remain in effect until revised or rescinded.

CONCEPT OF OPERATIONS

It is the responsibility of the Team Leader and/or Safety Officer to assure that the proper level of chemical protective clothing is worn by all persons in the mitigation of the incident including decontamination procedures.

If established, the DECON Officer will supervise the decontamination unit.

A personnel decontamination area must be set up and fully functional **before any entry is made into the Hot Zone**. The minimal DECON set-up will consist of a gross wash station and at least one assisted wash station and one assisted rinse station, together with appropriate "undressing" and "air change" stations. Depending upon the particular product involved, the decontamination set up may need to be expanded to include additional wash and rinse stations. All wash and rinse stations will use appropriate catch basins, to contain run-off for later analysis and proper disposal. Suitable containers for containment of outer PPE and inner clothing, gloves, SCBA, etc., must also be provided.

DECON operations for TASK FORCE 3 personnel will, at all times, be supervised by an appropriately trained A3/RWMD/HMRT member, even when the DECON operations are being handled by other trained emergency responders in support of the TASK FORCE 3.

Depending upon need, an appropriate Medical Decontamination station, separate from but adjacent to the TASK FORCE 3 DECON area, may be required for

decontamination of victims prior to emergency medical treatment and transport. In such event, TASK FORCE 3 personnel will be required to assist in the set-up and supervision of the operation.

A decontamination plan will be developed as part of the Site Safety Plan and set up before any personnel or equipment may enter areas where the potential for exposure to hazardous substances exists. The initial plan is based on a worst-case situation and assumes no information is available about the incident.

The decontamination plan should:

- Determine the number and layout of decontamination stations.
- Determine the decontamination equipment needed.
- Determine appropriate decontamination method.
- Establish procedures to prevent contamination of clean areas.
- Establish methods and procedures to minimize worker contact with contaminants during removal of personal protective clothing and equipment (PPE).
- Establish methods for disposing of clothing and equipment that are not completely decontaminated.

When the situation is known and the specific conditions have been evaluated, the initial decontamination plan can be modified, eliminating unnecessary stations or otherwise adapting it to actual site conditions. The plan should be revised whenever the types of personal protective clothing or equipment changes, the site conditions change, or the site hazards are reassessed based on new information.

## SITE SELECTION

Decontamination procedures should be conducted, if possible, in a process unit not connected to, or threatened by the emergency. Selection of the decon site should be based on the chemical involved, wind direction, travel distance, and other factors as they relate to the specific of each incident. SCBA cylinder pressures or the ability to change cylinders or make air line connections must also be considered.

The area in which the decontamination procedure shall take place will be referred to as the contamination reduction corridor (CRC) or Warm Zone. This is an area that is used as the egress point from which all personnel and equipment moving from the hot zone into the warm zone shall pass and be decontaminated.

## DECONTAMINATION PLAN

The original decontamination plan must be adapted to specific conditions found at incidents. These conditions may require more or less personnel decontamination than planned, depending on a number of factors. The Team Leader, or DECON Officer if established, will determine the level of decontamination needed based upon the following:

- Type of Contaminant - The extent of personnel contamination depends on the effects the contaminants have on the body. Contaminants do not exhibit the same degree of toxicity (or other hazards). Whenever it is known or suspected that personnel can become contaminated with highly toxic or skin-destructive substances, a full decontamination should be followed. If less hazardous materials are involved, the procedure can be

downgraded.

- Amount of Contamination - The amount of contamination on protective clothing (and other objects or equipment) is usually determined visually. If, on visual examination, it appears grossly contaminated, a thorough decontamination is generally required. Gross material remaining on the protective clothing for any extended period of time may degrade or permeate it. This likelihood increases with higher air concentrations and greater amounts of liquid contamination. Gross contamination also increases the probability of personnel contact. Swipe tests may help determine the type and quantity of surface contaminants.
- Level of Protection - The Level of Protection and specific pieces of clothing worn determine on a preliminary basis the layout of the decontamination line. Each Level of Protection incorporates different problems in decontamination and doffing of the equipment.
- Work Function - The work each person does determines the potential for contact with hazardous materials. In turn, this dictates the layout of the decontamination line. Personnel in the Exclusion Zone (Hot Zone) with the potential for direct contact with the hazardous material will require more thorough decontamination.
- Location of Contamination - Contamination on the upper areas of protective clothing poses a greater risk to the worker because volatile compounds may generate a hazardous breathing concentration both for the worker and for the decontamination personnel. There is also an increased probability of contact with skin when doffing the upper part of clothing.
  - Reason for Leaving a Zone - The reason for leaving the Exclusion Zone also determines the need and extent of decontamination. A worker leaving the Exclusion Zone to pick up or drop off tools or instruments and immediately returning may not require decontamination. A worker leaving to get a new air cylinder or to change a respirator or canister, however, will require some degree of decontamination. Individuals departing the CRC for a break, lunch, or at the end of day, must be thoroughly decontaminated.

Once decontamination procedures have been established, all personnel requiring decontamination must be given precise instructions (and practice, if necessary). Compliance must be frequently checked. The time it takes for decontamination must be ascertained. Personnel wearing SCBA's must leave their work area with sufficient air to walk to CRC and go through decontamination.

## DECONTAMINATION OF EQUIPMENT

EPA accepted procedures on decontamination of equipment to include sampling devices, tools, respirators, and heavy equipment will be followed.

## MEDICAL EVALUATION

Once decontaminated, personnel should go to the EMS Sector for treatment and

evaluation. The EMT's or other trained medical personnel must have been alerted to the hazmat's hazards, and be familiar with treating chemical injuries.

The vital signs should be taken for each person leaving DECON and compared to any baseline data. Any open wounds or breaks in the skin must be reported to medical control immediately, and cleaned at the scene unless advised otherwise. All exposed personnel should be monitored and recorded throughout the incident for later evaluation.

## EMERGENCY DECONTAMINATION

In an emergency, the primary concern is to prevent the loss of life or severe injury to personnel. Emergency Decontamination should be implemented even for those with severe or life threatening injuries. If immediate medical action is needed, this should be limited to establishment of a patent airway until adequate emergency decon is completed. If decontamination can be performed without interfering with essential life-saving techniques or first aid, or if the person is contaminated with an extremely toxic or corrosive material that could cause severe injury or loss of life, decontamination must be performed immediately.

Physical injuries can range from a sprained ankle to a compound fracture, from a minor cut to massive bleeding. Depending on the seriousness of the injury, treatment may be given at the site by trained response personnel. For more serious injuries, additional assistance may be required at the site or the victim may have to be treated at a medical facility.

Life-saving care may be instituted immediately inside of the Contamination Reduction Zone during decontamination. The outside garments should be removed. Respirators and backpack assemblies must always be removed. Fully encapsulating suits or chemical-resistant clothing must be removed.

If an emergency due to a heat-related illness develops, protective clothing should be removed from the victim as soon as possible to reduce the heat stress. Heat stroke requires prompt treatment to prevent irreversible damage or death. Less serious forms of heat stress, untreated, can lead to a heat stroke.

## DISPOSAL OF CONTAMINATED EQUIPMENT

All materials and equipment used for decontamination must be disposed of properly. Clothing, tools, buckets, brushes, and all other equipment that is contaminated must be secured in drums or other containers and labeled. Clothing not completely decontaminated on-site should be secured in plastic bags or drums for removal from the site.

Contaminated wash and rinse solutions should be contained by using step-in-containers. The spent solution will be transferred to drums or containers, which are labeled, for removal.

It is the policy of A3/RWMD/HMRT, Inc. that once properly secured; the clean-up crew leaves materials on site for removal and disposition. **TASK FORCE 3 will not remove any contaminated equipment or materials from the scene.** Clean up is the obligation of the responsible party and will usually be performed by the responsible party or through a contract with a clean-up contractor. The Team Leader will advise the responsible party of these procedures prior to any

work being conducted.

APPROVAL

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President, A3/RWMD/HMRT, Inc.

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Date

Adopted 12/2009