1. PURPOSE: The purpose of technical decontamination is to remove product/contaminates from personnel, apparatus and equipment. Specific measures may vary slightly with the WMD agent, level of contamination and circumstances of contamination. The Decontamination Officer, through Command, is responsible for determining the most appropriate decontamination procedures and managing the decontamination process.

2. PROCEDURES: The technical decon line is for responders and will be set up at all hazmat scenes whenever responders are conducting an entry. Normally civilians will not use the technical decon line, due to lack of privacy, but it may be used to decon 5-6 or less civilians (particularly when there is not enough manpower to operate 2 decon lines)

TECHNICAL DECON LINE PROCESS/STRUCTURE (PERSONNEL)

NOTE: Optimally, the Technical Decontamination Setup will be operated by six-eight technicians.

Station #1 - Personal Belongings & Tool Drop /Victim Accountability

Personnel Requirements: 1 station attendant
Equipment requirements: one large container, plastic bags, triage tags and markers, a container with soapy water, clipboard and pen, and 2 traffic cones labeled “hot zone”

Attendant #1 will have personnel tag and deposit all critical personal belongings (wallets, keys, identifications, money, purses etc.) into the large container. Attendant #1 will transfer the critical personal belongings into plastic bags and test for contamination with the appropriate sampling device based on the identified threat. If contents are contaminated, the attendant will decontaminate with soapy water and then re-monitor. Once the personal belongings are free of contamination, they will be moved to the exit point of the decontamination line for re-issue to the owners. For biological substances, toxicology personnel will provide guidance for re-issue. For victim accountability, attendant #1 will record names as individuals enter the technical decontamination procedure. A START triage tag will be used for each individual.
**Station #2 – Kill/Rinse (Figure 1)**

*Personnel Requirements:* 2 station attendant

*Equipment requirements:* 4 folding chairs, 4–6 orange buckets filled with bleach/water solution, 2 white buckets filled with clean water, 2 black grids, 4 black mixing pools, 2 with bleach/water solution and 2 with clean water, 2 pump sprayers, 2 small pools, and numerous brushes

Attendant #2 & 3 will guide personnel to the grids; they will step into the first container and dip their hands in the orange buckets (Kill). They will then step into the next container and dip their hands into the white bucket (Rinse). They will then step into one of the small pools where the attendants will use the spray pumps to spray bleach/water solution onto suits paying particular attention to knees and folds (underarms, crotch, behind knees). Attendants will then use brushes to scrub contaminate off personnel.
Station #3 – Rinse (Figure 2)

Personnel Requirements: 2 station attendants

Equipment requirements: 2 Orange buckets with bleach/water solution, brushes, 2 pump sprayers, 2 walkers, 1 large pool, 2 garden hose reels with showers nozzles, backboard roller system w/ backboard, 2 traffic cones labeled “liquid line”

Attendant #4 & 5 will guide personnel into rinse area where they will be rinsed head to toe. Any obvious contaminate still left will be sprayed with bleach solution and scrubbed with brushes until clean. A final rinse will occur before personnel leave this station. In case of a downed responder the back board roller is available and all decon activities would occur in this station.
Station # 4 – Monitoring (Figure 3)
Personnel Requirements: 2 station attendants
Equipment Requirements: 4 gas meter w/PID, M8 chemical detection paper; ChemRAE, Ludlum, M256 kits, Drager Kit, 6 folding chairs, 2 orange buckets filled with bleach/water solution, 2 white buckets filled with clean water, 4 black mixing pools, 2 with bleach/water solution and 2 with clean water, 4 grids, 1 overpack drum, 1 large container, 1 folding table, 2 traffic cones labeled “vapor line” and 2 traffic cones labeled warm zone.

Attendant #6 & #7 will assist personnel into this station, here they will kill and rinse their feet and hands as they did in station # 2. Personnel will then step to the second set of grids where the attendants will monitor with the appropriate detection device for the identified contaminant. If any contamination is detected, the person will move back to Station 3 to be rewashed and then be retested. Once victims are tested and determined to be free of contamination, they will be sent forward to the next set of grids where they will remove their protective clothing. They are not to remove their air supply (unless it was on the outside of the suit) or medical gloves until outside the warm zone. Suits will be placed in overpack drum and gloves in container. Personnel will then exit the warm zone and remove air supply and gloves. They will then sit and await medical evaluation form the EMS Branch/Group.
OPTIONAL STATIONS

In the case of a civilian the following two stations will be set up on one side of the technical decon line.

Station # 3A - Shower
Personnel Requirements: 1 station attendant
Equipment requirements: 1 shower system, soapy water, sponge.

Attendant will have personnel remove all their clothing and deposit it into the lined container. Once the container is full, the bags will be sealed. These bags will be stored in the personal belongings check/decontamination area until all victims are processed.

Attendant will have personnel enter the shower and ensure they wash all parts of their body paying particular attention to their hair and body folds. Attendant will have victims wash off any suspected contamination with soapy water and sponge, then re-rinse. Attendants will monitor with the appropriate detection device for the identified contaminant. If any contamination is detected, the person will continue to wash with soapy water and sponge the re-rinse. Once victims are tested and determined to be free of contamination, they will be sent forward to Station 4A.

Station # 4A - Mentoring Clothing issue/Redress
Personnel Requirements: 1 station attendant
Equipment requirements: Appropriate number of hospital scrubs for all personnel processing through decontamination

Attendant will issue the appropriate sized hospital scrubs to each person and have them redress.

Release:
The Decontamination Officer will release individuals who have been processed through the decontamination corridor to the EMS Branch staff for further evaluation. This includes all emergency response personnel, civilians and patients. The Decontamination Officer will determine when it is appropriate to release custody of clothing, personal effects and equipment after consulting the Treatment Officer.
TECHNICAL DECON LINE PROCESS/STRUCTURE (EQUIPMENT)

NOTE: Optimally, the Technical Decontamination Setup will be operated by 5 technicians

Station #1 - Initial Wash
Personnel Requirements: 1 station attendant
Equipment requirements: Appropriate booster lines and nozzles

Station attendant will spray the vehicle and/or equipment for two to three minutes with water. Hot water, if available, is more effective at removing residual contaminants. Although undersurfaces are difficult to reach, they must be sprayed.

Station #2 - Decon Solution Application
Personnel Requirements: 1 Station attendants
Equipment Requirements: Spray devices, 5% Chlorine bleach solution, brushes

Station attendant will apply the decon solution to all areas of the equipment suspected of being contaminated. Make special effort to apply decon solution to undercarriage of vehicles driven in or through a contaminated area, particularly apparatus used in emergency gross decontamination.

Station #3 - Wait (Solution Contact Time)
Personnel Requirements: 1 Station Attendant
Equipment Requirements: Spray devices, 5% Chlorine bleach solution, brushes

Station attendant will allow the solution to stay on the vehicles/equipment for a minimum of fifteen minutes. Throughout the wait time, the attendant will observe the equipment and re-spray areas that dry from sunlight, heat or evaporation.

Station #4 - Rinse
Personnel Requirements: 1 Station attendants
Equipment Requirements: Appropriate booster lines and nozzles

Station attendant will spray vehicles and/or equipment for two to three minutes, paying particular attention to undersurfaces.

Station #5 - Equipment Monitoring
Personnel Requirements: 1 station attendants
Equipment Requirements: 4 gas meter w/PID, M8 chemical detection paper; ChemRAE, Ludlum, M256 kits, Drager Kit

Station attendant will use the appropriate detection device to monitor for complete removal/neutralization of the identified contaminant. If Federal Agencies on the scene provide additional certification of decontamination, their process/requirements will be accommodated.
3. REFERENCES:
   - Phoenix Fire Department SOG: M.P. 207.01B 07/03-N

By Order Of:

Kevin W. Guimond

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Fire Chief