

Montgomery County Fire and Rescue Service

Gross Decontamination Options

Decontamination will be a major concern at the scene of an event where people are contaminated by a chemical or biological substance, or radioactive material. The estimated numbers of casualties needing decontamination, type of contaminant (chemical, biological or radiological) and weather conditions, are factors that influence the option(s) selected by first responders. Soap and water solution and plain water are the decontaminants of choice. However, unless soap is immediately available, first responders should use plain water. Time is critical.

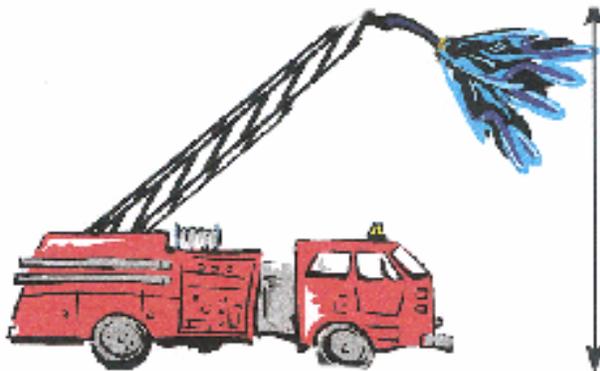
After the first arriving unit officer or command officer determines the need for gross decontamination, he or she should consider the following points when deciding which option(s) to use:

- Circumstances surrounding the contamination
- The number of casualties, ambulatory/non ambulatory and medical triage
- Weather conditions (e.g., hot versus cold temperatures)
- High water flow rate, with low nozzle pressure
- Wetting people with their clothes on or wetting them with their clothes removed down to their underwear
- Water runoff
- Casualty modesty

Handheld Hose Line(s)



After it is determined that decontamination is needed and while a ladder pipe, other master stream device or EDCS is being set up, use one or more pre-connected hose lines (with fog nozzles) to begin wetting down people suspected of being contaminated. Remember to use high volume, low nozzle pressure (gentle application).



Raise the ladder pipe (fog nozzle) about 25 feet above the ground. Use high water volume and low nozzle pressure. To help avoid cold shock, gradually expose contaminated people to the water.

Combination of Ladder Pipe and other Master Stream Devices

Using a combination of a ladder pipe, pumper master stream(s) device and 2-1/2" discharge outlets can form an effective decontamination system. Use high volume, low nozzle pressure (gentle application).

Air Decontamination Using Portable Fans



Positive Pressure Ventilation Fans (PPV) or other suitable portable fans are useful in blowing air across ambulatory casualties who are waiting for water-based decontamination. NOTE: This option does not apply to biological or radiological contamination.

Emergency Decontamination Corridor System (Using Pumpers, Ladders and Salvage Covers)

See separate guidelines for setting up this EDCS. The set up time is about 15 minutes. This system can decontaminate approximately 30 persons per hour.

Emergency Decontamination Corridor System (Using Aerial Ladder or Tower and Salvage Covers)

After raising the ladder out of the bed, moving to the side and extending the ladder horizontally a reasonable distance, use salvage covers to form a single corridor. Use fog nozzle from pumper to provide water.

Decontamination Tents

These tents can be quickly erected. They are equipped with shower nozzles and air and water heaters.

Automatic Fire Sprinkler System (actuation of Sprinkler Head(s))

Actuating one or more sprinkler heads can serve to decontaminate people as they leave a contaminated building or as they enter an uncontaminated building.

Swimming Pool ("Chlorinated Water" Rinse)

This option has potential, but from a safety viewpoint must be closely supervised.

Review and practice these options (where applicable) to gain proficiency in their use. The goal is to minimize the time between identifying the need to decontaminate and the application of water or other suitable decontaminant.