



# Jackson Hole Fire/EMS

## Operations Manual

Approved by:

  
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### DEFINITIONS

**Emergency Decontamination** – The rapid removal of hazardous materials from contaminated persons to minimize exposure and harm, prior to the establishment of a Decontamination line. Generally used for Responders or Civilians in distress due to exposure, equipment failure or medical emergency.

**Mass Decontamination** – The decontamination of multiple exposed persons, generally using hoses and water curtains in a process designed to accept and decontaminate masses of people.

**Technical Decontamination** – Decontamination performed using specialized equipment, solvents and materials, often called a Decontamination Line. Generally used for Responders exiting downrange activity.

### SECTION 1 - PURPOSE

The purpose of the Decontamination Guideline is to assure that any potentially harmful or dangerous residues, on persons, equipment or apparatus, are confined within the Hot Zone. Decontamination is intended to prevent the spread of contaminants beyond the already contaminated area, including the fire station, the hospital, and other environments.

The specific measures required to decontaminate people, equipment, or apparatus will vary with the contaminant, the circumstances and the level of contamination. These factors must be considered on a case-by-case basis, within the guidelines described in this procedure.

### SECTION II – GENERAL PROVISIONS

Command is responsible for assuring that a HazMat Group is established. Decontamination will be in place prior to entry of personnel into the Hot Zone. Decontamination will be led by a Hazardous Materials (HazMat) Technician if possible and will be referred to as the Decon Unit Leader. Firefighters trained to the HazMat Operations level will make up the remainder of the Decontamination resource. All Fire/EMS personnel should be proficient in setting up and staffing a decontamination line. Decontamination must be integrated into the Incident Action Plan of the HazMat incident.

Decontamination requirements must be based upon the specific needs of the situation. The decontamination process must be appropriately designed for the specific materials involved and the degree and type of exposure encountered. The assessment will require research and may involve consultation with toxicology resources. Examples Include:

1. Emergency Response Guide (ERG)
2. WISER
3. CHEMTREC
4. NIOSH Pocket Guide
5. Safety Data Sheets
6. Canutec
7. SERTC

The HazMat Group Supervisor must assume that all personnel and equipment preparing to leave the Hot Zone are contaminated. Three courses of action are available:

1. Confirm not contaminated--using instruments or investigation based on the nature of the situation.
2. Decontaminate (as appropriate to the situation) and release. (Emergency, Mass or Technical)
3. Retain and package items for removal from the site for disposal or decontamination at a different location.

Emergency Decontamination will generally be the first decontamination established for an incident. An Engine with a booster reel and an operator will be considered adequate Emergency Decontamination. The Incident Commander can determine an alternative Emergency Decontamination if there is a positive rescue profile.

If Mass Decontamination is necessary due to the number of contaminated civilians, two engines are optimal but can be performed with an engine or elevated platform. Nozzles should be on a fog pattern. Victims should be directed towards the Decon Area and instructed to remove contaminated clothing (results in approximately 80% removal of contaminants). Victim belongings should be bagged and tagged. Victims will move towards the Cold Zone where they will be given a blanket, gown or paper clothing. Send Victims for medical treatment.

Technical Decontamination will require both Rescue 74 and the Decontamination Trailer.

### **SECTION III – DECON AREA CONSIDERATIONS**

In all cases the primary objective must be to avoid contaminating anyone or anything beyond the Warm Zone. When in doubt about contamination, decontaminate all affected people, equipment, and apparatus. The Decontamination Area should be established within the Warm Zone, adjacent to the Entrance/Exit Corridors. People, equipment, and apparatus shall not be permitted to leave the Hot Zone without approval from the HazMat Group Supervisor.

The Decontamination Area should provide a corridor leading away from the source of contamination toward the Cold Zone, with stations along the way for the deposit of tools, equipment, protective clothing and other items. Monitoring personnel and equipment should be

appropriately placed along the path. A person travelling along the path should experience a decreasing level of contamination along the way. When showers or spray nozzles are used, adequate secondary containment (decon pool and tarps) should be provided to avoid further contamination of the Warm Zone.

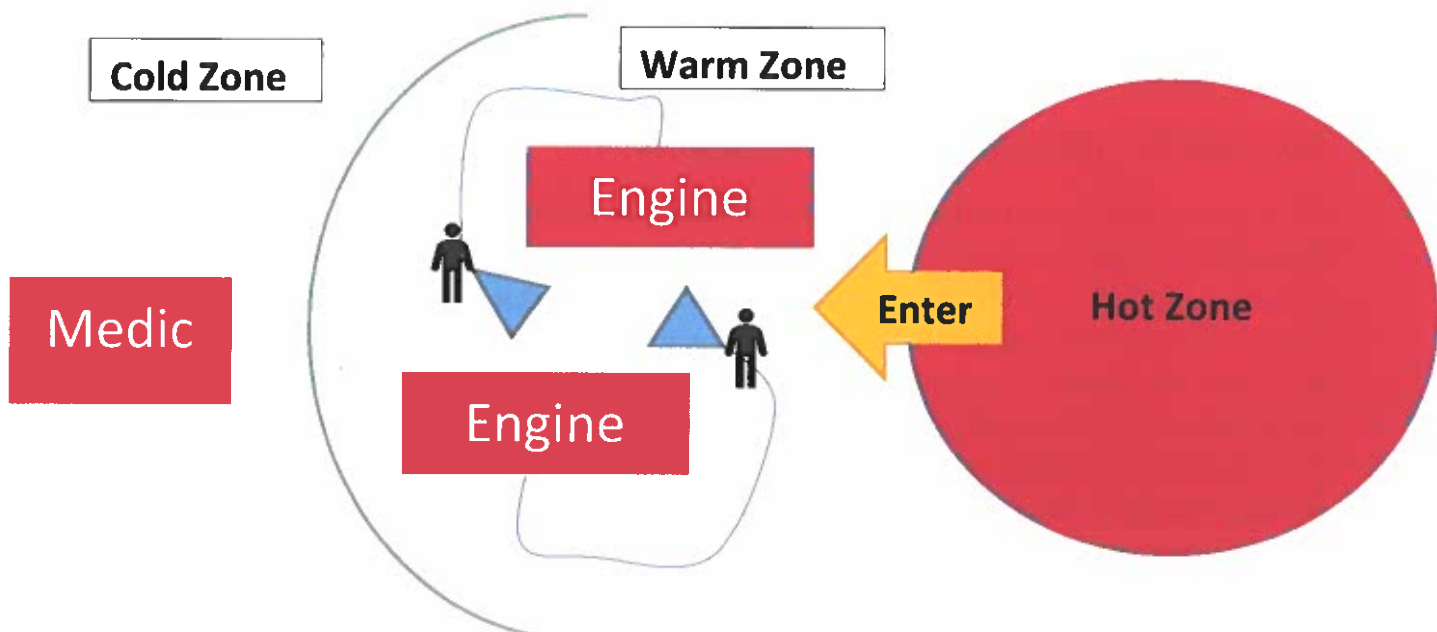
All contaminated items must remain within the Warm Zone until decontaminated or safely packaged for removal. The HazMat Group Supervisor or Safety Officer will be responsible for supervising proper removal of these items. Personnel should be assigned to inspect persons and/or equipment before being released from the Decontamination Area. This inspection may be visual or may involve the use of monitoring instruments, when appropriate. It must be assumed that items or persons are contaminated, unless their non-contamination can be confirmed.

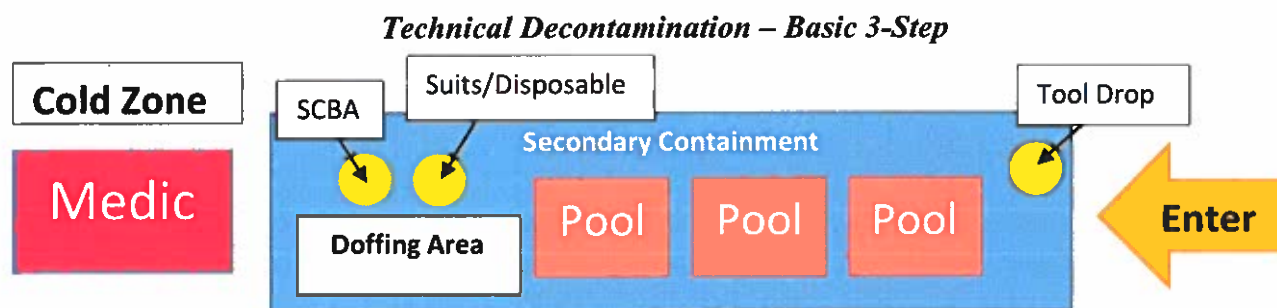
During the decontamination process, all personnel working in the Decontamination Area must be adequately protected from contaminants. The Decontamination Leader will identify and require the appropriate protective equipment. A rule of thumb is one level of protection below the entrants into the Hot Zone. Decontamination Area personnel and their equipment may also require decontamination after use.

Any runoff or residue from decontamination procedures must be contained within the Decontamination Area and retained for proper disposal. Contaminated run-off must not be allowed to spread or escape. Diking may be necessary, and should be directed back to the Hot Zone.

After Decontamination has been demobilized and no longer in use, the area should remain in place for a commercial disposal team to clean up.

### *Mass Decontamination with 2 Engines*





#### SECTION IV – CONTAMINATED PATIENTS

Patients in need of medical treatment should be removed from the source of contamination as quickly as possible, but remain within the Hot Zone perimeter. These patients must not be allowed to contaminate further areas or persons. It may be necessary to bring treatment personnel (with adequate protective clothing) into the Hot Zone to treat these patients, unless they can be rapidly and effectively decontaminated. After decontamination, the patients and medical personnel may leave the Hot Zone.

Patients should be quickly treated for life threatening injuries simultaneous with decontamination efforts. Once treatment is completed and the patient is ready for transport, the patient should be covered and transported. The ambulance should be brought to the Warm Zone perimeter for loading. When feasible, the ambulance should be prepared by draping exposed surfaces with sheets or polyurethane covers. Patients should be wrapped or covered to lessen off-gassing of the products within the ambulance. Rescue and treatment personnel may still have to wear protective garments and S.C.B.A. while en route.

**If it is necessary to transport contaminated patients to medical facilities, the receiving hospital must be notified in advance of the nature of the contamination, to make necessary preparations.** The ambulance used will be considered contaminated and will have to be decontaminated before being used to transport any non-contaminated persons. Helicopters will not be used for transporting any contaminated patients due to off-gassing effects on the pilot and flight crew.

#### SECTION IV – DECONTAMINATED PERSONS

When persons are decontaminated at a Decontamination Area, they may be released to leave the Hazard Zone. This includes Fire Department personnel, other emergency personnel, civilians and patients. The Hazmat Group Supervisor will determine when it is appropriate to release custody of protective clothing, personal effects and equipment after consulting appropriate medical personnel (i.e., health center physician or Poison Control Center physician). The Hazmat Group Supervisor may release individuals who are substantially decontaminated and direct them to medical facilities for further evaluation or decontamination. Individuals may also be directed to shower, change clothes or take other secondary decontamination measures. These personnel should complete an exposure form. The health center's exposure control officer will initiate contact and follow-up measures.