



## HAZARDOUS MATERIAL INCIDENTS – EMS RESPONSE AND TRANSPORT

**Effective:** January 1, 2020  
**Replaces:** February 12, 2015  
**Review:** January 1, 2023

### I. Purpose

The purpose of this policy is to provide standards for emergency medical responders who respond to hazardous materials (HAZMAT) incidents. All emergency responders must be alert at HAZMAT incidents because emergency responders, patients, and equipment may become contaminated with hazardous materials if proper procedures are not followed. Governmental agencies charged with the response, mitigation, and management of hazardous materials shall follow appropriate internal policies.

### II. Definitions

- A. **Hazardous Materials (HAZMAT) Incident** – The uncontrolled release or threat of release of a hazardous material that may impact life, the environment, or property. [ref: FIRESCOPE]
- B. **Exposure** – Exposure can occur when a person inhales, ingests, injected or comes in contact with a hazardous substances and/or pathogen.
- C. **Contamination** – The presence of extraneous, especially infectious, material that renders a substance or preparation impure or harmful. [ref: USDH&HS CHEMM]
- D. **Decontamination (DECON)** – The physical and/or chemical process of removing or reducing from personnel or equipment, or in some other way preventing the spread of contamination by persons or equipment. [ref: FIRESCOPE]; The removal of dangerous goods from personnel and equipment to prevent potential adverse health effects. [ref: USDOT-ERG]
- E. **Dry Decontamination** – Dry decontamination is a method of decontaminating (or removing contaminants like chemicals, biological particles, or other liquids, gasses, or solids) that requires no water or other liquids.
- F. **Gross Decontamination** – Gross decontamination is a method of decontaminating (or removing contaminants like chemicals, biological particles, or other liquids, gasses, or solids) that requires water or other liquids.

- G. **Wet Decontamination** – Wet decontamination is a method of decontaminating (or removing contaminants like chemicals, biological particles, or other liquids, gasses, or solids) that requires water or other liquids.

## II. General Procedures

- A. Initial Actions – If emergency medical responders arrive on-scene of a HAZMAT incident, implement the following tactical steps:
1. Safety
    - a. Provide a Report on Conditions
    - b. Protect yourself, others, and your unit (withdraw if necessary)
    - c. Utilize cautionary approach: uphill, upwind, and upstream
    - d. Identify if rescue is needed
    - e. Account for all personnel
  2. Isolate the Area and Deny Entry
    - a. Keep everyone at least one hundred (100) feet away for small incidents and at least five hundred (500) feet away for large incidents
    - b. Position vehicle headed away from incident
    - c. Consider possible crime scene
    - d. Notify/Update additional emergency responders by providing a Conditions Actions Needs (CAN) Report
- B. Secondary Actions – If public safety personnel have not arrived on the scene, implement the following tactical steps:
1. Command
    - a. Establish Command
    - b. Establish, identify, and report location of Command Post
    - c. Establish a Safe Refuge Area
    - d. Attempt to separate symptomatic and asymptomatic patients without making contact or entering potential contamination zones.

- e. Direct incoming emergency response vehicles to a staging location in a safe area that is uphill, upwind, and upstream.
- 2. Identify Hazardous Materials
  - a. Ask bystanders questions such as what they saw, smelled, tasted, heard, or felt
  - b. Ask who, what, where, when, and how related to the incident
  - c. Use binoculars to maintain a safe distance (if possible)
  - d. Look for labels, placards, and markings, etc.
  - e. Refer to Department of Transportation (DOT) Guidebook
- C. Supportive Actions:
  - 1. Private EMS providers shall continue to provide support to on-scene public safety organizations. However, only trained public safety HAZMAT or authorized specialized personnel are allowed to enter the “Hot” Zone or “Warm” Zone of a HAZMAT incident.
  - 2. EMS providers shall coordinate with on-scene Hazardous Materials Technical Specialists to provide receiving hospitals with the following information (this information must come from the on-scene public safety authority and approved by the Incident Commander (IC) prior to releasing to the hospital):
    - a. Chemical names
    - b. Decontamination methods used on-scene
    - c. DOT reference number
    - d. Any appropriate treatment information/considerations
  - 3. EMS providers shall notify every hospital that will receive a patient from the HAZMAT incident as soon as possible. The notification should include the information in Section II, C, 2

### **III. Decontamination**

- A. Only trained HAZMAT responders are allowed to properly decontaminate potentially contaminated patients and any emergency responders in the “Warm” Zone.
- B. All potentially contaminated patients must be properly decontaminated by the trained HAZMAT responders before emergency medical responders can administer medical treatment or transport the patients to an emergency medical facility.

- C. Decontamination may include (and may or may not involve ambulance service personnel):
  - 1. Removing clothing and fresh air decontamination (in certain situations oxygen may be administered in the “Warm” Zone during fresh air decontamination).
  - 2. Removing clothing and gross water rinse followed by mild soap and another water rinse.
  - 3. Removing clothing and gross water rinse followed by a mild neutralization solution (e.g., sodium bicarbonate) and another water rinse.
  - 4. Different decontamination procedures for equipment.

#### IV. Patient Handover, Treatment, and Transport

- A. Once patients have been deemed properly decontaminated by the IC (or their designee), the patients will be moved to a safe area within the “Cold” Zone for medical treatment by the emergency medical responders.
- B. The IC, or their designee and the transporting paramedic or EMT must both agree that the patient is properly decontaminated and ready for treatment and transport, before treating the patient or loading the patient inside the ambulance. IC designees may include the HAZMAT Group Supervisor, Safety Officer, or Decontamination Team Leader.
- C. If the IC or their designee and the transporting paramedic or EMT do not agree that the patient is properly decontaminated, both personnel should cooperatively work through the issue. Consider contacting the EMS Field Supervisor or EMS Duty Chief.
- D. Prior to departing the scene, the IC (or their designee), will complete and provide the transporting paramedic or EMT a Policy #610, Schedule A, “Patient Decontamination Survey Sheet for Transport to Hospital” form.
  - 1. The IC (or their designee) will complete and provide a form for each patient being transported.
  - 2. The transporting paramedic or EMT will photograph/digitally capture a copy of the completed Policy #610, Schedule A, “Patient Decontamination Survey Sheet for Transport to Hospital” form and attached the copy to the patient’s electronic patient care record.
  - 3. The original Schedule A will be provided to the receiving hospital.
- E. Consistent with *Santa Clara County Prehospital Care Policy 501: Hospital Radio Reports*, the transporting crew will contact the receiving hospital as soon as possible, before leaving the scene, but before arriving at the hospital, and provide the following information:

1. State "DECON ALERT"
2. Identify that the patient being transported has been decontaminated after being exposed to a contaminant
3. Identify the following:
  - a. Chemical name
  - b. Decontamination methods used on-scene
  - c. DOT reference number (if available)
  - d. Any appropriate treatment information/considerations
  - e. Provide routine patient notification report
  - f. Request that the ED have an appropriate representative meet the ambulance outside the ED door to evaluate the patient before entry.
  - g. Ambulance personnel shall not enter the emergency department with the decontaminated patient until authorized by the appropriate emergency department representative
4. The hospital representative shall meet the ambulance crew outside the hospital emergency department doors and determine whether to:
  - a. Take the patient into the emergency department: or,
  - b. Direct hospital personnel to decontaminate the patient

**V. Accidental Exposure of Emergency Medical Responders**

- A. If medical responders identify that they are contaminated during any transport, they shall immediately stop at the closest safe location, notify County Communications that they are contaminated and request a fire department response. Crew safety and patient care are the highest priorities. Responders presenting with symptoms secondary to exposure to a contaminant should be considered patients.
- B. If medical responders identify that they are contaminated at any incident site, they shall immediately notify the Incident Commander. Responders presenting with symptoms secondary to exposure to a contaminant should be considered patients.
- C. Emergency medical responders who are accidentally contaminated at the HAZMAT incident scene *shall not* board the transport rig until they have been thoroughly decontaminated at the scene. Responders presenting with symptoms secondary to exposure to a contaminant should be considered patients.

- D. Patients and emergency medical responders accidentally contaminated in the transport rigs (e.g., by gastric contents) shall immediately wash with water and contact the IC for advice on further decontamination.