

Campbell County Fire Department Standard Operating Procedure		
Operations	Hazardous Materials Decontamination	<i>404.80</i>

I. PURPOSE:

To provide safe and effective decontamination of fire service personnel and other persons who have been exposed to and contaminated by a hazardous material.

II. SCOPE:

This procedure applies to all Campbell County Fire Department (CCFD) personnel.

III. PROCEDURE:

The need for decontamination of fire service personnel and other persons can vary considerably, during or after a hazardous materials incident. For example, walking through a contaminated area may require only simple controlled undressing and bagging of contaminated clothing for later cleaning or disposal. In some cases, severe contamination of protective clothing and equipment may occur. When this is the case, a controlled undressing and shower facility will have to be set up.

1. When serious contamination of personnel and equipment does occur, a **PERSONNEL DECONTAMINATION AREA** will have to be established. This area will be designated as the **DECON SECTOR** for communication purposes. This will provide for a controlled undressing and washing system designed to avoid the transfer of chemical contamination from contaminated to non-contaminated areas and from contaminated to non-contaminated equipment and facilities.
 - 1.1. Decontamination procedures and materials will be based on the hazardous materials involved in the incident. In many cases, an adequate decontamination agent is plain water.
 - 1.2. Decontaminated runoff from rinsing is usually not a problem, since contaminants become well diluted by the rinse water. However, if the Hazardous Materials Team Leader feels that it may present a problem, steps should be taken to impound the runoff.
 - 1.3. In some special or severe cases, personnel may have to be decontaminated at the scene, before any examination, treatment or secondary decontamination can be accomplished.
 - 1.4. Full decontamination of reusable clothing and equipment must be carried out in the decontamination area.
 - 1.5. If equipment and clothing will require a second decontamination cleaning, it should be sealed in plastic bags and isolated until such time as it is fully decontaminated or disposed of.

Initial Approval: July 2008 Revision Date:	Page 1 of 3	Don Huber, Fire Chief ORIGINAL SIGNED
---	-------------	--

Campbell County Fire Department Standard Operating Procedure

Operations

Hazardous Materials
Decontamination

404.80

- 1.6. Waste decontamination water solution should be treated as hazardous waste and held in a container until it can be properly disposed of or neutralized. In many cases, simple dilution of wash water is all that will be required.
- 1.7. A decon line is to be established with a minimum of four (4) persons, one of which will be a Hazardous Materials Tech.

2. Decontamination Steps

Generally, the process involves three stages; Gross, Secondary, and Definitive Decontamination.

2.1. Gross Decon

- 2.1.1. Evacuate the patient(s) from the high-risk area.
- 2.1.2. Remove the patient's clothing.
- 2.1.3. Perform a one-minute quick head-to-toe rinse with water.

2.2. Secondary Decon

- 2.2.1. Perform a quick full-body rinse with water.
- 2.2.2. Wash rapidly with cleaning solution from head to toe.
- 2.2.3. Rinse with water from head to toe.

2.3. Definitive Decon

- 2.3.1. Perform thorough head-to-toe wash until "clean".
- 2.3.2. Rinse with water thoroughly.
- 2.3.3. Towel off and put on clean clothes.

3. Contamination and Decontamination Zones

3.1. The first step is to establish a "Contamination Zone" and a "Safe Zone". The "Contamination Zone" will include a hot area, based on the type and amount of material involved, size of the spill or release, wind and terrain, in which a minimum number of personnel should enter.

3.2. These boundaries should be marked with barricade tape.

3.3. The Hazardous Materials Team Leader will determine the boundary of the known or suspected contamination area. **NOTE:** The first company on the scene should isolate the incident until the boundaries of the contaminated area can be established.

4. Contamination Reduction Area

4.1. Minimum of four (4) personnel will be designated to set-up and operate the Decontamination Station, with at least one of these being a Hazardous Material

Initial Approval: July 2008
Revision Date:

Page 2 of 3

Don Huber, Fire Chief
ORIGINAL SIGNED

Campbell County Fire Department Standard Operating Procedure		
Operations	Hazardous Materials Decontamination	<i>404.80</i>

Tech.

- 4.2. Operation of the Decontamination Station will be under the direct supervision of the Decon Officer, which will be the company officer on the unit assigned to set up and operate the station. Additional assistance will be provided as required.
- 4.3. The services of an engine company may be required to supply water for the various decontamination stations.
- 4.4. Determine how extensive decontamination procedures will have to be:
 - 4.4.1. How many decontamination stations will be required.
 - 4.4.2. How many people will be needed to operate the Decon stations?
- 4.5. Locate the best area in which to set up the Decon stations. Place equipment and prepare any needed decontaminates. Consider:
 - 4.5.1. Wind direction - locate upwind from incident site.
 - 4.5.2. Slope of ground - locate uphill as a general rule.
 - 4.5.3. Accessibility for vehicles entering and leaving the area.
 - 4.5.4. Available water supply for decontamination use.
 - 4.5.5. Power supply if operations will be at night.
- 4.6. Keep records of personnel decontaminated and personnel carrying out the decontamination procedures. This is essential for safety and health records and operational debriefing.
5. Levels of Protection Required against Contamination
 - 5.1. Level "A": Will require the use of the chemical encapsulating suits for protection. When this is the case, extensive decontamination may be necessary, and plans should be made accordingly. An EMS Unit should be on the scene. Vital signs and weight of those personnel using the suits is to be recorded prior to the donning suits.
 - 5.2. Level "B": Will require the use of an SCBA. Decontamination may be required when the B level suits are used. Vital signs and weight of personnel using the suits should be recorded before any operations are started.
 - 5.3. Level "C": Requires the use of regular turnout clothing with SCBA and usually will require only limited decontamination procedure

Initial Approval: July 2008 Revision Date:	Page 3 of 3	Don Huber, Fire Chief ORIGINAL SIGNED
---	-------------	--