Purpose

The purpose of the Decontamination Procedure 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.

Procedure

The specific measures required to decontaminate personnel, 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.

Command is responsible for assuring that a Decontamination Sector is implemented at incidents which involve a potential contamination problem. This sector should be assigned to personnel from the Hazardous Materials Team. Decontamination must be integrated into the management plan of the hazardous materials incident.
The Decontamination Sector Officer is responsible for determining the most appropriate decontamination procedures and managing the decontamination process. This should be done in conjunction with advice from the Poison Control Center.

The initial assessment of 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.

The Decontamination Sector Officer 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 by using instruments or investigation based on the nature of the situation.
2. Decontaminate (as appropriate to the situation) and release.
3. Retain and package items for removal from the site for disposal or decontamination at a different location.

In all cases, the primary objective must be to avoid contaminating anyone or anything beyond the Hot Zone. When in doubt about contamination, decontaminate all affected personnel, equipment, and apparatus.

The Decontamination Area should be established within the Hot Zone perimeter adjacent to the Entrance/Exit (Lobby Control). Personnel, equipment and apparatus shall not be permitted to leave the Hot Zone without approval from the Decontamination Sector Officer.

The Decontamination Area should provide a corridor leading away from the source of contamination toward the Exit, 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 space must be provided to avoid contamination of other areas or persons.
All contaminated items must remain within the perimeter of the Hazard Zone until decontaminated or safely packaged for removal. The Hazard Sector Officer or Decontamination Sector 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.

**Decontamination Area Precautions**

During the decontamination process, all personnel working in the Decontamination Area must be adequately protected from contaminants. The Decontamination Sector Officer will identify and require the appropriate protective equipment. These individuals and their equipment may also require decontamination after use.

Any run-off or residue from decontamination procedures must be contained within the Hot Zone 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.

**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 deal with these patients unless they can be rapidly and effectively decontaminated. After decontamination, the patients and treatment personnel may leave the Hot Zone.
Transportation

Transporting of Level I patients should not be delayed for complete decontamination. Patients should be quickly treated for life threatening injuries simultaneously with decontamination efforts. Once treatment is completed and the patient is ready for transport, the patient should be covered and transported. The rescue should be brought to the Warm Zone perimeter for loading. When feasible, the rescue 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 rescue. Rescue and treatment personnel may still have to wear protective garments and S.C.B.A. while enroute.

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, in order to make necessary preparations. The rescue used will be considered contaminated and must 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.

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 Decontamination Sector Officer 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 Decontamination Sector Officer 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.

Protective Equipment and Personal Effects

When feasible, protective clothing and personal effects should be decontaminated and released from the Hot Zone with the individual. If the Decontamination Sector Officer determines this is not feasible, these items will be impounded in the Decontamination Area. Personal effects will be carefully guarded by Decontamination Sector personnel until a determination can be made regarding their final disposition.
Tools and Equipment

The Decontamination Sector Officer will determine when tools, equipment and apparatus may be released from the Hot Zone. No item shall be removed without approval. The Decontamination Sector Officer may impound equipment for later evaluation and have it packaged for storage or transportation. This impoundment will be accomplished following the consultation of medical and technical assistance.