

**Tempe Fire Department Policies and Procedures**  
**Radiological Decontamination**  
**208.01D**  
**Rev 5-29-09**

**RADIOLOGICAL DECONTAMINATION**

Personnel may be contaminated with radiation emitting alpha or beta material at any radiological incident. In order to prevent any health risk to personnel and to control the spread of the contamination, the following steps should be taken:

- A. All personnel (fire and civilian) that were inside the Hot Zone must not be released from the zone until they have been surveyed with radiation detection instruments and decontaminated if necessary.
- B. Contaminated personnel leaving the Hot Zone must pass through the Decontamination Area. (See Figure 1.)
- C. All personnel reporting to the Decontamination Area will remain fully dressed in protective gear and SCBA (facepiece in place and gloves on).
- D. No smoking, drinking, or food consumption will be permitted until all exposed personnel are determined to be decontaminated.
- E. All contaminated clothing and equipment must be removed and held in the Decontamination Sector.

Plastic bags or plastic trash containers must be utilized to contain contaminated clothing and equipment. (City plastic trash containers are excellent for this purpose and may be confiscated from any nearby residential area or obtained through the City Sanitation Department.) All trash containers should be lined with plastic bags.

**REMOVAL OF CONTAMINATED EQUIPMENT AND CLOTHING**

All radioactively contaminated equipment and clothing must be placed in plastic containers at one of three collection points (see Figure 1). Removal of contaminated equipment/clothing will proceed as follows:

- A. At the first survey point, all personnel will be checked with monitoring instruments. If not contaminated, personnel may leave the Hot Zone via Lobby Control.
- B. Contaminated personnel will place coat, boots, and bunker pants in the first container, continuing to maintain SCBA facepiece in place. All items must be gently handled to avoid spreading dust (radioactive particles) and using gloves at all times. Actions should avoid contaminating inner clothing, skin, and particularly hands.
- C. Helmets, hoods, SCBA and gloves will be placed in the second container. Helmet and hood shall be removed forward, over the face piece, before removing the facepiece. Gloves shall be removed and placed in container last.
- D. After the second container, personnel will again be checked and, if free of contamination, may be released from the Hot Zone. If still contaminated, personnel must proceed to the third container.
- E. At the third collection point, all outer clothing will be removed and personnel will be checked again with monitoring instruments. If still contaminated personnel must shower at the site, using a portable shower and soap. Showering must pay particular attention to body areas which may collect contaminants. Avoid runoff into eyes or ears.

F. All exposures shall be recorded in employees' exposure records.

Following showers, personnel will again be surveyed for contamination, before being issued clean clothing.

NOTE: Shower runoff water must be impounded and collected.

All personnel released from the Hot Zone shall be directed to shower with soap and shampoo and put on clean clothes as soon as possible after the incident.

All firefighting equipment and vehicles will remain "on scene" until they are determined to be free from contamination or have been cleaned by a decontamination team.

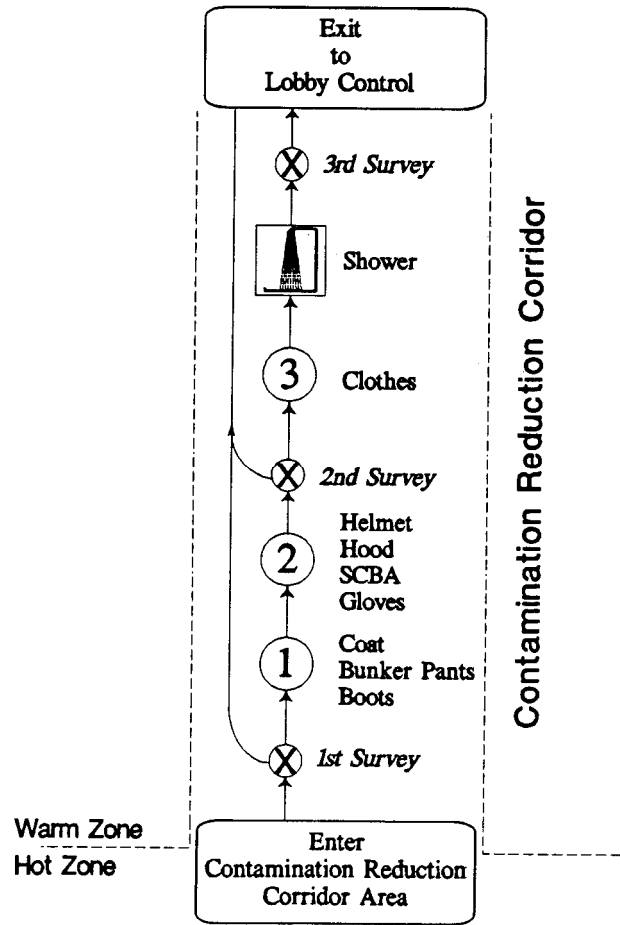


Figure 1