



Salem/Cumberland County Health Department

Radiological Response

Casualty Management After Detonation of a Nuclear Weapon In a Urban Area

Casualty Management After Detonation of a Nuclear Weapon in a Urban Area

This document contains recommended immediate actions for police officers, firefighters, and EMTs who may be faced with the detonation of a nuclear weapon in a populated area.

The Situation

The devastation is similar to that experienced at the World Trade Center, except that the dust is radioactive. There are thousands of people are dead and injured as well as contaminated. In addition, there are thousands of people in a large area with serious radiation exposures but no obvious physical injury or visible contamination.

How to Protect Yourself

- ❑ **Stay away from ground zero.**

Entering the surrounding area only to save lives. The radiation levels will be very high.



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- ❑ **Ensure your own physical safety.**

Look for fires, exposed high voltage wires, sharp or falling objects, tripping hazards, or hazardous chemicals. Be alert for changing conditions.

- ❑ **Wear a mask.**

This will reduce the dose from inhalation of radioactive dust. Ideally the mask should be a full-face mask with a HEPA filter, but even breathing through a wet handkerchief or cloth will help. There will be little danger from radioactive gases, so a self-contained breathing mask, while effective, is not necessary.

- ❑ **Remove clothes once you leave the area.**

Bag the clothing for later disposal. If you fail to remove your clothing you will continue to receive radiation and expose others because dust collects on your clothes.

Wear loose fitting clothes covering as much of your body as possible. Any removable garment that will prevent the dust from coming in to direct contact with your skin will be good.

- ❑ **Protect open wounds or abrasions from radioactive contamination.**



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- ❑ **Rinse your entire body off.**

If running water or showers area available, rinse your entire body with lukewarm water. Even a fire hose may remove most contamination not already removed with the outer clothing.

- ❑ **Wash vehicles before permitting them to leave the scene, except for emergency vehicles performing life-saving functions.**

- ❑ **Do not eat, drink, or smoke while exposed to potentially radioactive dust or smoke.**

Drinking water may be necessary for people working in high temperatures with bulky protective clothing. If absolutely necessary to drink water, drink from a canteen or other closed container.

- ❑ **Beware of heat stress.**

- If radiation monitoring instruments are available, wrap them in plastic bag to prevent their contamination. Use them to map the areas leading up to the highest dose rates. Enter the high dose rate areas only when necessary to save a life, make these entries as short as possible, and rotate the personnel who make these entries.



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- Wash thoroughly with lukewarm water as soon as possible after leaving the area, even if you decontaminated before leaving the scene.

Protecting the Injured and Exposed

- ✓ Physical injuries are more serious than radioactive contamination. Deal with life-threatening conventional injuries first. When the patients are stable, then deal with radioactive contamination. Patients who were treated and are now stable should be evacuated from radiation areas.
- ✓ Tell nearby hospitals to expect the arrival of radioactively contaminated and injured people.
- ✓ Victims will have radioactive dust on their clothing. If many people are covered with dust, it will not be feasible to conduct a careful survey of each person. Assume all the dust is radioactive. Set up a facility where each person can remove their outer clothing, wash as thoroughly as possible, and wrap in blankets. This facility should be upwind and far enough from ground zero to prevent radiation levels from interfering with monitoring of patients.



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- ✓ Record keeping is as important for the long-term health of the victims as it is for the emergency responders.
- ✓ Many people without apparent injuries will leave the scene. Make public service announcements on radio, and television advising these people to bag their clothes, place the clothes outdoors, and wash thoroughly. People experiencing nausea, vomiting, reddening of the skin or unexplained lesions should be advised to report to a hospital immediately and request a checkup for Acute Radiation Syndrome (ARS).

For More Help

In the event of a radiation emergency, you should notify your state Radiation Control Program Director. Telephone numbers for each state may be found at

<http://www.crcpd.org/Map/map.asp>

For Questions Regarding Radiological Information

Contact:

Gilbert Carino

Cumberland County OEM

Phone #: (856) 455-8770