

SOUTH PORTLAND FIRE DEPARTMENT

STANDARD OPERATING GUIDELINES

SOG #:	6.647	Effective Date:	5/20/2012
Title:	Radiological Decontamination of Injured	# of pages:	5
Category:	Hazardous Materials Response	Classification:	Red

1. **PURPOSE:** This Standard Operating Guideline (SOG) defines and describes the procedures to decontaminate injured **civilians and/or responders** in the event of a radiological event.

2. **PROCEDURES:** Special decontamination procedures and considerations should be provided in case of a medical emergency. Decontamination procedures shall not be implemented if they may aggravate or cause more serious health effects. However, prompt life-saving first aid and conference with the Medical Officer will determine the appropriate decontamination procedures in these special cases.
 - Individuals with minor injuries should be decontaminated, except for the wound(s), before removal to a medical facility (as practical).
 - Medical attention for more serious injuries will have priority over personnel decontamination.
 - In cases of serious injury, hotline personnel should inform the medical facility of the radiological condition of the patient before their removal from the accident site.
 - Hotline personnel shall take steps to limit or prevent the spread of contamination during transfer of the victim as well as at the medical facility. This is often accomplished either by removing contaminated clothing or covering contamination with a clean sheet or blanket. However, preventive measures should be commensurate with the severity of the injury.
 - Health and safety personnel from the hotline may accompany the contaminated victim in the ambulance to an appropriate hospital.

STATION ONE (Triage Area)

Time Limit: 60-90 seconds

Personnel: 2-3

Don a minimum of 3 pairs of gloves – CHANGE AFTER ANY CONTACT WITH VICTIM

1. Check background radiation level in both CPM and REM
2. START medical triage
3. Perform rapid survey for presence of radioactive contamination (more than 2 times background)
4. Survey any open wounds first!
5. Cover open wounds with loose dressing
6. Take nasal swabs; collect left and right individually and place in separate sample bags
7. Sample bag ID should contain: victims name, date, time, and description of sample
8. Use non-alcohol wet wipes to clean face, placing one wipe in marked sample bag
9. If needed, irrigate both eyes by tilting head to left or right and irrigate from tear ducts out
10. Place protective face mask with eye shield; form to victims nose and under chin
11. If victims hands survey clean than cover with gloves or plastic wrap to keep clean
12. If victim vomits, collect first vomit material in emesis bag with victims name, date, time
13. Place all sample bags in collection box to transport to health physics lab
14. Transfer patient to next stage

CHANGE GLOVES-CHANGE AFTER ANY CONTACT WITH VICTIM

15. Ready for next victim

STATION TWO (Cutting Area)

Time Limit: 2-4 Minutes

Personnel: 4

1. Victim transport from *Triage Area* on long board to *Cutting Area* and transferred to clean covered backboard
2. Backboard prepped with three disposable sheets/drapes
3. Apply semi-wet disposable towels over patients outer clothes
4. Cut clothing from the neck (center left and center right) down to feet
5. Cut clothing on each arm from the shoulder down to hands
6. When cutting be careful not to cross-touch outside to inside clothes
7. Beginning at neck fold/rolling clothing inside-out contaminated clothing down to feet
8. When folding/rolling clothing be careful not to cross-touch outside to inside
9. Remove contaminated *first* sheet so victim is on clean sheet
10. Dispose of all contaminated clothes and materials in covered trash can
11. Victim should be on fresh, clean backboard with two remaining clean sheets
12. Station Two personnel transfer victim hand-over-hand to Station Three personnel
13. Ready for next victim

CHANGE GLOVES-CHANGE AFTER ANY CONTACT WITH VICTIM

STATION THREE (First Warm Station)

Time Limit: 5-6 Minutes

Personnel: 4

1. Station Three personnel receive victim hand-over-hand from Station Two personnel
2. Remove any temporary bandage from open wounds; survey and collect sample
3. Irrigate 1 ½ minutes and dry all wounds; than 10 seconds to take a survey
4. Map and document survey findings on personnel survey form
5. Dress wounds with secured bandages then cover and seal dressed wounds with plastic cover
6. Survey the rest of victim for presence of hot spots; document findings
7. Using 2 X 2 take a swipe to determine if contamination is fixed or loose, document findings
8. For loose contamination areas, wash with soapy solution (2 minutes), dry and re-survey
9. For fixed contamination areas, cover with dressing
10. Contaminated hair must be cut, not shaved, or washed twice for 2 minutes then dried and surveyed
11. If hot spots with loose contamination become less than 2 times background – finish decon, cover all hot spots with dressing, remove victim from decon line
12. Remove contaminated second sheet so victim is on clean sheet
13. Station Three personnel transfer victim hand-over-hand to Station Four personnel
14. Ready for next victim

CHANGE GLOVES-CHANGE AFTER ANY CONTACT WITH VICTIM

STATION FOUR (Second Warm Station)

Time Limit: 3-4 Minutes

Personnel: 4

1. Station Four personnel receive victim hand-over-hand from Station Three personnel
2. Loose contamination areas: wash with soapy solution, dry and re-survey
3. Using 2 X 2, test contaminated areas to determine if contamination us fixed or loose
4. Final survey on remaining loose contaminated spots than document
5. Cover and seal loose contaminated areas
6. Remove sealed plastic protective covering from dressed open wounds
7. Remove contaminated third sheet
8. Change mask
9. Delayed victims moved to EMT station (Cold Zone) and/or casualty collection areas by medics
10. Ready for next victim

CHANGE GLOVES-CHANGE AFTER ANY CONTACT WITH VICTIM

Using the Survey Meter:

Use one of the Ludlum 3 meters with the pancake probe covered by a plastic baggie to frisk victims that were in the hot zone

Contamination is defined as 2 times background readings and/or 300 CPM.

To frisk a person, start at one location (e.g. the top of the person's head), and move slowly around the outline of the person. Hold the probe, which should be covered in a baggie or other plastic wrap device, about 1-2 inches away from the person, and move the probe about an inch a second over the person's body.

A SPFD Personnel Contamination Survey Form (RAD) will need to be filled out on all victims that are sent through decon.

NOTE: the patient assessment part of a SMART Triage tag can be used to identify each person, and instead of using the body outlines on the TAG to indicate locations of injury, use the outlines to indicate radiation readings.

If contamination is found on the person's skin, then wash with soap and water, in the decon tent, or other location. **DO NOT SCRUB THE PERSON WITH BRUSHES**, as this may abrade the skin, allowing external contamination to become internal contamination.

Keep washing the person, and follow each washing with another head to toe frisking. If the person is less than 2 times background readings and/or below 300 CPM, he/she is considered clean and can be released. For persons who have readings that stay above thresholds, even after repeated washings, request guidance from the State Radiation Control Program team.

Return the probe to its holder on the meter when finished. Do not set the probe down on the ground. The probe should be placed in the holder with the sensitive side of the probe facing to the side or facing up so that the next person to use the meter can monitor his/her hands before handling the probe.

The most common mistakes made during personnel contamination surveying are:

- Holding the probe too far away from the surface (should be about ½ inch or less)
- Moving the probe too fast (should be about one probe-diameter per second or one to two inches per second)

3. REFERENCES:

- None

By Order Of:

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Kevin W. Guimond
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