



International

VICTORIA DE ARDUIS

Integrated Preparedness Solutions Experts

"Victory Over Adversity"

Best Practices for Patient Decontamination

6P International has taught many classes on patient decontamination and, both through our own experiences and through the experiences our students have shared, we have developed some best practices that we want to share with our customers. We firmly believe that anytime we teach a class, whether it be Hospital Incident Command, First Receiver/Patient Decontamination or Weapons of Mass Destruction, that the class is only 50% successful if our instructors come away without both imparting knowledge on the students and learning something themselves. We realize that the students in our classes are subject matter experts in their particular fields and there are many cumulative years of experience in each class. With such a wealth of knowledge and experience available, we diligently seek to draw upon that knowledge and experience in such a way as to better serve future students and classes. Each class we learn of examples and real-life scenarios that demonstrate the need for the class, unique "outside the box" methods of attacking difficult problems, simple improvements that vastly improve existing methodologies, or even new & innovative techniques that we may not have heard of yet.

Some Patient Decontamination Best Practices we have developed are listed below:

- 1) When dressing out in Level C chemical protective gear, we recommend triple gloving. Inner glove is Nitrile, second layer is Silver Shield gloves, and third layer is butyl rubber. With some WMD agents, the breakthrough time can be as little as 10 minutes for butyl rubber and the Silver Shield gloves provide a much greater protection factor than just nitrile and butyl rubber.
- 2) Also, when dressing out in Level C chemical protective gear, we recommend triple taping arms and legs. The first layer of tape seals the seam between boot or glove and the suit, then two more layers overlap (1 above and 1 below) the first wrap of tape. Again, it's an added protective factor to ensure the suit is well sealed.
- 3) Before you zip up your suit and put your gloves on, make it easier for yourself when it comes time to doff your suit. Take a piece of tape and affix it firmly to the zipper pull on the suit. It provides a bigger grip for your gloved hands to find more easily when it comes time to doff.
- 4) Don't be afraid to use plenty of chemical protective tape when it comes time to seal your suit. Not only do we recommend triple taping arms and legs, we also recommend sealing the front of the suit, over the zipper. Also remember, you're going to be doing a lot of bending, stretching, and squatting, so tear off about a 2

foot section of tape and reinforce the seam in the crotch of the suit. Better safe than sorry.

- 5) Speaking of chemical protective tape, don't try to save money by buying duct tape and think you can use it for a real event. Duct tape is NOT chemical protective tape and will be breached when you enter the contaminated area. Spend the money to buy chemical protective tape for the real event. Your life is worth it.
- 6) If your agency uses Level C suits with hoods under your PAPR, here's a little trick to help keep the hood from obstructing your vision. Pull the excess material to the back of your head and use a short piece of tape to hold it in place. This should keep the excess out of your eyes.
- 7) If you currently use the bright yellow, disposable butyl rubber booties (aka chicken feet), relegate them to training or simply dispose of them! It has been our experience that they will not hold up once outside on the asphalt or concrete parking lot where you will be conducting mass decontamination. On the flip side, you don't have to invest in heavy-duty, steel-toed hazmat boots like the fire department wears either. The best solution is a "middle of the road" hazmat overboot such as the *North SF Chem Overboot* or something similar.
- 8) When you start training your team, remember you will need to ensure there are *at least* 3 people trained in each position. In **optimum** conditions, you will have someone working in Level C gear for about 20 minutes, one person on standby to replace the one currently working, and one who just came out of Level C and is in Responder rehab for 20 minutes. And, how many of us live in a world where we will be doing this in optimum conditions?
- 9) Don't open/use your FR-57 multi-threat filter cartridges for training purposes. They are sealed in foil to keep them "fresh." Only use those FR-57 multi-threat cartridges if they are out of date and would be disposed of anyway. If you don't have any FR-57 multi-threat cartridges that are out of date, purchase just enough of the HEPA filters to use as training cartridges. Mark them "Training Only" and use them over and over.
- 10) If you bought 3 FR-57 multi-threat cartridges for each PAPR thinking you had enough, think again. Each First Receiver that comes out of the decontamination area will dispose of his/her cartridges when they doff their Level C equipment and the next First Receiver using that PAPR will need a fresh set of cartridges. So for example, if you only rotate 3 people through each position, you will need a minimum of 9 cartridges per PAPR.

If your facility uses a decontamination tent for mass patient decontamination, or are considering purchasing a tent system, there are some very important points to keep in mind.

- 1) Tent systems have many components that must be kept together in order for the system to function. Components such as sump pumps, plumbing fixtures, tarps, berms, flooring, wastewater bladders, backboards, etc all must be kept with the tent itself in order for it to work.
- 2) The tent and all of its components have to be stored somewhere easily accessible to those First Responders who will be using it and setting it up with short notice.
- 3) Tent systems can be rather complicated and if personnel don't train with them on a regular basis, they will not be able to erect the tent and put the system into use in a stressful environment such as a mass casualty incident.
- 4) Training is a Catch-22 situation with a tent system. The more often personnel train with the tent, the better they become at setting it up and putting the system into use. However, when you train with a tent system, you subject it to more wear and tear and there will be no escaping damage to the tent and its components.

A much better solution than a tent system is a mobile decontamination unit (trailer system).

- 1) Mobile decon units have most if not all of their components built in as integral parts.
- 2) For the few components that may not be integral to the trailer, the trailer provides its own storage, eliminating storage needs within the facility.
- 3) Mobile decon units are invariably more simple to set up and operate than tent systems. It can be as simple as parking the trailer, setting the corner jacks, hooking up the water, and beginning decon operations. Most mobile decon units can also be bought with water heaters, generators, and other equipment as well as the basic shower system.

Copyright 2007 - 2009, James Payne. About the author: James Payne is a Charlotte, NC-based Emergency Management and Safety consultant with over fifteen years experience.

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