

Reducing risk of exposure to viruses, bacteria or other contaminants

Kevin Gern, Director of Safety

This document is to serve as guidance in response to questions about risk reduction for exposure to COVID-19. Understandably, this process is not 100% protection as that can only be achieved by 100% avoidance of the virus. In our daily lives and businesses, it would be very difficult to avoid contact with others or with items that others have touched potentially leaving traces of the virus behind ready to be picked up by the next person that comes in contact with it.

This discussion came up as members of ARA were questioning how they should reduce risk or exposure to themselves and their employees when customers return rented equipment or call for tents to be removed from sites. For the explanation of how we can reduce risk in layers, let's use the example of a tent that has been rented to a medical testing facility that is doing drive through COVID-19 testing.

In this example we will say that a customer has called a tent off rent and is ready for you to go remove the tent from the site. The first question to address is:

Has the renter removed all of their items from the tent and the surrounding area allowing you to only have to handle the tent itself?

I would make it clear to the customer that you will require this to be done before your crews can be sent out. This will reduce the risk of your employees having to handle more potentially infected items than they need to.

We also know that the virus can only survive on certain surfaces for a period of time before they are no longer viable. Information has been released that shows the virus is viable in aerosols for 3 or 4 hours, on cardboard for 24 hours and on plastic or stainless-steel surfaces for 2 or 3 days. (Additional testing is still being done.) Knowing that time can allow the virus to die, gives us an additional step to reduce risk of exposure. You may need to discuss with the customer or make agreements as to how these additional days of cool off time can be resolved.

When you arrive to the site to clean and then remove the tent, make sure to wear proper PPE.

Remember we are reducing risk so any barriers we can put between us and the virus will help to keep you from getting contaminated. Gloves, disposable coveralls, boot covers, N95 rated facemask and safety glasses or splash shield to protect your eyes are great items to have available.



With proper PPE you can then clean the tent using manufacture approved disinfectants or cleaning chemicals.

COVID-19 and TENTS

Chuck Shipp

Shipp Chemical Co Inc

Let us start here with the fact that detergents breakdown proteins. The Covid-19 virus has a protein shell that protects it. Any approved tent cleaner is going to be on the alkaline side of the pH scale will breakdown the that shell coating and it will spill out the mycroplasma. It will be dead and gone. Soap and water on your hands is much better eliminator of the virus on your hands than the gel sanitizers. Soap acts as a medium that clings to the detergent and washes down the drain. If a hand soap is strong enough, it may even breakdown the shell and kill it as well. So simply put, your normal tent cleaner will do the job.

The catch is handling the tent to get it to that point. As I talked with Fred at Fred's Tents, he decided to clean them on the spot before take down. Maybe long handle brushes and hoses to rinse. Be sure to apply the cleaner to the dry fabric first. **DO NOT PRE-WET WITH WATER.** The virus will cling to the detergent or be broken down. Pre-wetting with water protects the surface from the detergent.

Here is another counter-intuitive tip. Apply from the bottom of the side walls or the bottom of the tent top spraying up to the top peak of the tent. If you start spraying from the top with the cleaner, which most people do, it will leave clean streaks. The dilution should be stronger than normal. Up to 1 part cleaner to 15 parts water is a good starting point. That equates to 8 ounces per gallon of water. After the on site cleaning your crew will be safe to handle the top as normal. Even then, when the tent is brought back, a more thorough cleaning should be done.

Some people cannot grasp this concept on detergents and may still demand a disinfectant. That is problematic because there is huge shortage and back log of demand. The product we sell for inflatables is a very high grade hospital disinfectant with a Coronavirus rating. However, we do not know how quickly it kills Covid-19 because it has not been tested. As I stated on an article on FB under Shipp Chemical Co., Inc., a good safe dwell time is at least two minutes. That means it stays wet for two minutes. So if any tent rental ops can find at their local janitorial supply store a quaternary disinfectant that is a very confident kill and it does not harm the vinyl. If that cannot be found we drop back and punt with bleach and just know it will rob the plasticizers and make the tent less flexible. Desperate times call for desperate measures. The dwell/wet time probably should be at least 10 minutes although we have not seen anything from the EPA on that yet. The dilution is 3 ounces to a gallon of water.

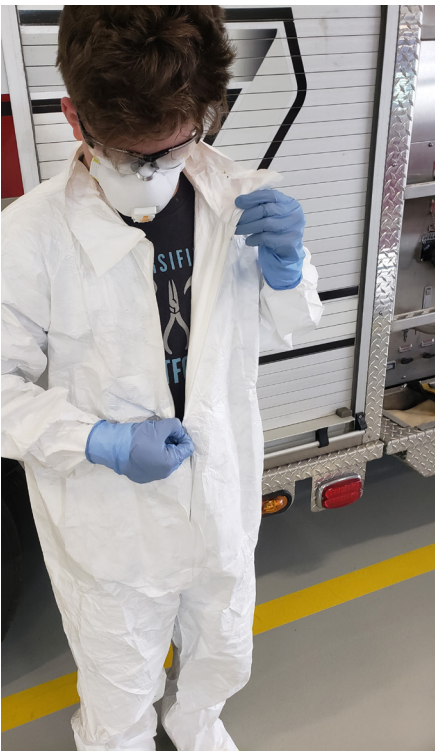
Tents setup at medical sites should be treated as contaminated! Cleaning on site, if possible, from a distance is the best way to protect your tent crew.

...Continued from **Reducing risk of exposure to viruses, bacteria or other contaminants**

The next step after decontaminating the tent or tent removal is sometimes the most overlooked and that is proper removal of your contaminated PPE. The next few photos will help to demonstrate the proper removal so that you reduce your risk of exposure.

Remember that you must treat the outer part of your coveralls and all of your articles of PPE as “Dirty”. We will start with the removal of the disposable coveralls. This can be unzipped and then you can use your gloves to touch only the outside of the suit pulling it away and down off of your shoulders. (keep this in mind when you are sizing your disposable coveralls so that you don’t buy a set that fit too tight and make this process difficult)

NOTE: we keep our facemask and our glasses on during this process.



As you pull your arm out of the coveralls you will be pulling the sleeves inside out with this same motion. This will allow the outer “dirty” side to now be on the inside and reduce your risk. This same concept is used throughout the removal process. As you peel the coveralls down off of your body continue to only touch the outer part with your dirty gloves.

As you pull your legs through the coveralls you will be pulling these inside out as well to put the “dirty side on the inside.

With your gloves still on you can remove your boot covers and place them onto the pile of contaminated PPE.

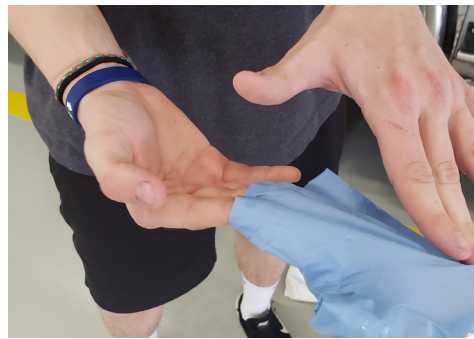
Now we can remove our gloves. This is done by pinching the outer part of one of your gloves at the wrist.

Then pull the glove off of that hand and in the process you are turning it inside out and helping to keep the dirty part on the inside.

Place this glove into the palm of your gloved hand and ball it up.



Now you can place 1 or 2 fingers inside the wrist of this gloved hand to peel this glove down and over the other glove as well as pulling it inside out. You will now have both gloves inside out and one packaged inside of the other reducing risk of exposure.



You can now remove your facemask by pulling on the elastic bands and avoid touching the soft filter portion that you breath through. Make sure to immediately wash with soap and water for at least 20 seconds and rinse thoroughly. If soap and water are not available, you should use healthy amount of hand sanitizer made from a minimum of 60% alcohol.

All contaminated PPE should be bagged and properly disposed of. It may be good practice to have a second set of hands to help you with the PPE removal and bagging process. Just remember that this person should at a minimum have an N95 facemask, safety glasses and gloves on as they bag the contaminated PPE. They should also go through the washing process to ensure the kill or remove any potential virus that they may have come in contact with.

