

COVID-19: Legal and Technical Question and Answer

We recently held a virtual roundtable with industry experts Kris Rzesnoski CR, Ed Cross “The Restoration Lawyer”, Norris Gearhart CR, and Michael Pinto CMP to discuss the workflow challenges restorers may encounter during the COVID-19 pandemic.

We had extraordinary attendance and opened the floor to questions from viewers. We gathered most of those questions and asked our experts for their response.

Below you will find the answers from our experts, related to legal and technical issues that may arise while navigating COVID-19 jobs.



Q. CA Contractor law is \$1000 or 10% prior to start of work. What are Ed's suggestions for collecting funds up front in this situation??

A.  EC: California law prohibits the collection of advances for work not performed on home improvement projects.

However, California contractors may collect one (1) “down payment” on a residential job, not to exceed 10% of the total contract price, or \$1,000, whichever is less. There is no way around that rule, and violating it subjects the contractor’s license to disciplinary action. California imposes no restrictions on deposits or advances for commercial jobs.

California contractors should carefully study the <http://cslb.ca.gov/> for details about what types of work constitute “home improvement,” because the definition is broad.

Q. Does the contract limit the amount of liability to the amount of the contract?

A.  EC: Our contract contains a provision stating that liability is limited to the amount paid for the work, or the actual damages, whichever is less. It also excludes consequential and punitive damages.

COVID-19 Legal Question and Answer

Q. If you engage an industrial hygienist and require insurance proof from them, don't you have to get the same level of detail that virus events are covered?

A.  EC: The insurance of a consultant or hygienist is of no benefit if the nature of the claim is excluded from coverage. Contractors would benefit from obtaining a copy of the hygienist's policy, including endorsements and having it reviewed and interpreted by a competent professional.

Q. One problem I've had with insurance is my CGL/CPL approved COVID-19 cleaning but my workers comp said "we have no idea. Make a claim and we'll decide whether to approve it or not." You guys aren't insurance agents (wish Dybahl was present too lol) but do you have any thoughts on workers comp claims for guys who think they got COVID-19 while on the job?

A.  EC: Workers compensation is generally the "exclusive remedy" for work-related illnesses or injuries. However, there are exceptions that would allow an employee to sue an employer in civil court. One such exception applies where the employer had fraudulently concealed conditions that exacerbate an employee's illness.

While that seems unlikely in the restoration context, we have created a standardized Notice to Employees form that serves as documentation that an employer has disclosed risks of COVID-19 and health issues related to exposure to mold, lead, and asbestos. Employees who sign it commit to follow company protocols for PPE and safety.

COVID-19 Technical Question and Answer

Q. Can we actually do “preventative” cleaning?

A.



KR: That’s a great question. I believe the term preventative can also be interchanged with precautionary cleaning. Businesses are dealing with this situation and want to remain productive, especially in the coming months. They are willing to take precautionary measures that allow them to be seen to care for staff and customers. They want that cleaning done by a trained contractor to ensure that it reduces their risk of a transfer of virus in their workplace.



MP: Although it is not generally considered to be “preventative”, additional cleaning, particularly deep cleaning, is an essential component to breaking the chain of infection. Conducting deep cleaning that focuses on the touch points and management of papers and contents in buildings helps prepare the facility for the step where disinfectants are applied. By simplifying the process the pre-cleaning can be considered a step towards prevention.



NG: All cleaning is preventive whether it be to prevent the build up of biofilms or the degradation of the surface materials or mechanical breakdown. Daily or regular cleaning, particularly high touch surfaces, will prevent the accumulation of biological contaminants. Infections are a result of a susceptible host and sufficient dose. The goal of regular “preventative” cleaning is to prevent a sufficient dose of pathogens from developing.

Q. Are virus fragments biological residue?

A.



MP: Virus fragments are biological residue but they do not contain Adenosine Triphosphate (ATP) so they do not register on an ATP meter.

COVID-19 Technical Question and Answer

Q. Do you need a pesticide license to apply disinfectants?

A.



MP: The use of a pesticide license is regulated by the states, and sometimes localities. As such there is no “one-size-fits-all” answer. While a few states might interpret their regulations to require the application of disinfectants in this situation to be covered by their rules requiring pesticide licenses, this generally is not the case if the contractor is making no claim to disinfection but only contracting to apply an EPA registered disinfectant.



NG: There are only two states to my knowledge that by law require a pesticide applicators license and those are California and New York. To my knowledge enforcement of the law on the application of disinfectants is nil. However, ignorance is not an excuse, so check with the authorities having jurisdiction where you are to ensure you are complying with the law.

Q. Should restorers be using moisture resistant tyvek suits to perform any COVID-19 cleaning or are the standard white tyvek suits acceptable?

A.



MP: The choice of suits is dependent on the work being done. Crew members that are doing standard touch point cleaning can use a variety of protective clothing. Crew members who will be spraying, misting, or fogging disinfectants should utilize suits that offer a liquid barrier.



KR: Lee Senter who is an IICRC Instructor and a health and safety guru had responded in the roundtable chat that restorers should also consider the tyvek suits that are made to fit respirators. He was wondering why almost nobody talks about them.

COVID-19 Technical Question and Answer

Q. How does the panel feel about ATP Testing as a proof of cleaning?

A.



KR: That's a great question. I believe the term preventative can also KR: There are some limitations to ATP testing that the restorer has to be aware of. Depending on your cleaning process and chemical selection you may get a false positive count. However, as a general rule I am in favor of ATP testing as an indicator of a successful cleaning process. I would be careful with the term proof because you have actually not proven the cleanliness of the surface. Your ATP testing indications show that you started with a 1,000 reference count and your cleaning process has reduced that count to 15. That is a substantial reduction in biological load and in turn a good indicator that the cleaning processes were effective.



MP: ATP testing is a good surrogate to help determine the level of cleanliness of touch points prior to the application of disinfectants. As such, the panel participants were generally in favor of this technology; at least until more accurate viral testing is available.



NG: I agree with Kris and Michael. We are seeing a much faster development and deployment of PCR (Polymerase Chain Reaction) as a testing and clearance option. PCR is a technique that allows us to pinpoint specific DNA/RNA markers in a given sample via interpretation of fluorescence. In general terms, this technique allows us to work with very low detection limits (as low as a few hundred viral particles, depending on the specific setup utilized) by making thousands to millions of copies of specific RNA markers within a very short timeframe.

In order to accomplish this, multiple inputs are required.

1. The sample itself, with or without the viral agent that we're looking for
2. A buffer solution, to stabilize the sample in terms of pH and salinity even as other compounds are added to solution
3. DNA primers, compounds designed to attach to either end of a specific segment of DNA, perpetuating the multiplication chain reaction

COVID-19 Technical Question and Answer

A.
cont'd



4. DNA nucleotide bases (adenine, cytosine, guanine, thymine), the raw building blocks of DNA base pairs, which will serve as materials for the potentiation of specific DNA segments we're looking to amplify
5. Taq polymerase enzymes, a biological catalyst allowing for the rapid copying of specific DNA. This enzyme is relatively stable in heat, allowing it to survive the steps to be undertaken

It should be noted that taq polymerase is only functional on DNA. Therefore, when dealing with RNA, such as the genetic material found within a viral nucleus, an initial step - reverse transcription is necessary. This step uses reverse transcriptase, another enzyme catalyst, to make a complementary set of base pairs, which can then be combined with RNA to form a corresponding DNA strand.

Once all these items are in place, the sample goes into a thermocycler, which rapidly heats and cools the sample to three specific temperature ranges.

Stage 1 (Denaturing): Approximately 200 degrees. This heat is enough to break the hydrogen bonds of DNA, separating its double helix for later pairing and amplification.

Stage 2 (Annealing): Approximately 125 degrees. This heat is low enough for primer molecules to attach to either side of the newly split helix. Reverse and forward primers ensure that each side of the DNA helix are captured and copied, essentially allowing for a doubling of selected sequences.

Stage 3 (Extension): Approximately 160 degrees. This temperature is optimal for the taq polymerase enzyme to fashion complimentary single helix structures via the assembly of compatible base pairs. The end result is that the specific RNA material sought after in the initial sample has been doubled. Without specific RNA sequences for the primers utilized (such as with any other dissimilar DNA, like human, plants, other viruses, etc.), the reaction simply isn't enabled or isn't detected via the specific probe utilized.

This cycle is then repeated multiple times, allowing us to transform a few hundred initial RNA particles into potentially millions, which can then be more easily detected by sensor technology.

The end result is specific to what we're looking for (in this case, COVID-19), relatively rapid and definitive.

COVID-19 Technical Question and Answer

Q. If using ATP testing, what testing media should be used?

A.



MP: Each ATP meter has its own swab system. As such, you have to get the swabs specific to that instrument. The swabs that measure general cleanliness, or biological residues, as compared to more specific sub contaminants such as gram-negative bacteria should be used in this case since we are trying to get an overall indication of surface cleanliness.

Q. Can meeting the contact time provide confidence that it worked?

A.



MP: The manufacturers of the various chemicals are the ones who provide the confidence that the disinfectant actually works. The EPA validates that through the registration process.



NG: If the product has been stored, handled and diluted if necessary and surface prep, delivery method is done according to the product registration then you can be confident that the product has produced the claimed efficacy. For the claim to be made on an EPA registered product the product is challenged with either the actual pathogen of an appropriate surrogate in three separate EPA approved Good Lab Practice (GLP) studies with three different lots of solution and delivered full efficacy on every inoculated coupon in each test. Additionally, the pathogens used in these studies are “farmed” and “harvested” to be more robust than those found in the “wild” which further ensures that the product will deliver the advertised efficacy in the field as was demonstrated in the controlled environment of the lab.

COVID-19 Technical Question and Answer

Q. Are poly barriers acceptable in retirement and hospital settings or should hard barriers be required?

A.



MP: This is another question that is going to be answered by local and facility regulations. Many healthcare systems have rules under their infection control risk assessment procedures that require hard barriers for certain types of work. Still, touch point cleaning and application of disinfectants generally do not involve significant disturbance of structural or finish components. As such, temporary poly barriers may be acceptable. This is absolutely a case where communication with the client needs to be detailed and include the infection control officer.



KR: I agree with Michael on this one. Restorers do not necessarily need to “earn their hero card” by making these decisions in the building. Let the infection control officer(ICO) call the shots and you implement the solution. It shows the ICO that you not only recognize the authority they have in the facility, but you’re a contractor who is diligent and understands how to work with them. Be prepared to have the conversation and have a recommended solution ready, because some of the ICOs may come back to you and ask for your opinion if they are undecided.

Q. Due to increased negative pressure in hospital settings should we be additionally monitoring EXCESS negative pressure and possibly cross contamination due to pressure differentials.

A.



NG: This is a complex and complicated question. You are definitely going to want to have the ICO and parties of the buildings engineering team involved in this discussion. The way hospitals and care homes are setup is that they may have negative pressure areas in one area and positive pressure areas in another. You may have surgery rooms that are positively pressured that if you create a negative pressure in that space it will contaminate the environment. Where as down the hallway you might have an area like an elevator shaft that is intentionally placed under negative pressure. Playing with pressures in a care home, hospital or medical facility is something that should not be done lightly and without knowledge of the pressure zones of that building.

COVID-19 Technical Question and Answer

Q. If fogging chemicals are required, is there a risk of having residue build up that could act as a potential bio load in the future?

A.



MP: Certain chemicals do leave a residue which may have to be cleaned after application in order to leave the facility with a clean appearance. The danger of successive layers of residue is not necessarily a bio load since the disinfectants that leave a residue are typically salt compounds but that the residue will make future cleaning of the touch points difficult once they have dried.



NG: In addition to what has already been stated a residue may also cause continued degradation to the surfaces. This could result in a surface that was intended to be non porous to develop significant microscopic pitting making future through cleaning and disinfection more difficult and possibly rendering existing cleaning protocols and validation testing inadequate.



KR: To add to Michaels response, this is a great opportunity to discuss this with the customer prior to beginning work. "We are going to be fogging _____ into the building and it will leave a residue behind. Do you want us to clean that substance up after we are done? Or do you prefer to have your cleaning staff do the work?" It's funny that the longer you are in the industry the more often you find yourself wanting to have these talks early. It allows the customer to determine the spend and helps them clarify your scope of work. You have set the expectations that some clean-up should happen, but now have provided the customer a choice of who is responsible for the work.

COVID-19 Technical Question and Answer

Q. Should restorers be HIPAA trained before going into these areas?

A.



MP: The Health Insurance Portability and Accountability Act has fairly strict guidelines for protecting the privacy of medical records. Anyone who will be handling records generally has to have some minimum level of training, and in some states, self certification by the employer. Generally, if papers are not open on the desk or will not be disturbed in file cabinets the requirements for HIPAA training will not apply. Still, when in doubt, ask the client for specific directions on how to handle those files.

Q. Since there is no surface test for the virus, can we rely on proving contact time was met for disinfectants?

A.



MP: The contractor should take solid steps to document the details of their cleaning and application of disinfectant processes. This includes photo documentation and timing of the various surfaces to ensure they are wet in accordance with the dwell time of the manufacturer's product.



KR: My belief is that you would want to consider adding in the ATP testing pre and post. This is a quantitative number that will help assess your cleaning process. Part of that process is documenting the steps you took to clean the surfaces, what type of cloth did you use, what was your cleaning solution, what disinfectant did you use and what was the temperature of the room at the time of the application as well as the dwell time for the product.



NG: See my response above.

COVID-19 Technical Question and Answer

Q. Should restorers treat all Category 3 events - especially sewage back ups due to the current situation and should sporicidal disinfectants be used as the new standard?

A.



KR: The application of disinfectants does get debated in this industry a fair bit. Let's start with the last part first. The application of disinfectants on Category 2 and 3 losses is part of the standard today. Some restorers argue that if you do a proper cleaning, flush the structural materials and succeed in removing the soils that the application of an antimicrobial is not required. I tend to agree with this in principle, but I would not necessarily write that into my procedures manual and trust we do it right everytime. In order for this to work you must have a testing process to determine "what is clean" and this comes back to the question about ATP testing (I am in favor of this). As a general rule I would say that thorough cleaning is the first step and application of a disinfectant would be a reasonable and prudent finishing step before stating you have returned the structure to a sanitary condition.



NG: I believe that as an industry we treat sewage back up too casually. Unless it is a closed system you have no idea what is up the line and thus what has come into the affected built environment. We know that the sewage could contain C-diff and hepatitis A and the current COVID-19 RNA has been detected in feces at sufficient quantities to cause infection. As an example of what I mean; I have worked in animal research facilities where the animals are being used for studies of numerous diseases, during the cage cleaning the feces and urine is washed directly into the municipal sanitary sewer. The world according to Norris would always use a sporicidal disinfectant on all sewage losses. As an employer, I also required all staff who might respond to a sewage backup to have both their Hepatitis A & B vaccines and Tetanus vaccine.

COVID-19 Technical Question and Answer

Q. Can PPE be relied on to prevent workers from contaminating the site?

A.



KR: The short answer is no. PPE was designed to protect the worker. There are some major advantages of using PPE to reduce the risk of cross contamination, the equipment was not designed for that.

If this is a marketing or sales strategy approach, I would use caution when discussing protecting the work site from your workers. But you could explain how your PPE is preventing the worker from coming into contact with the building surfaces. They have no exposed skin and they are wearing a _____ respirator that will offer a higher protection than a mask. We have done everything to mitigate the risks our workers present to the worksite and we are focused on protecting them while they do the work.

Q. Applying disinfectant must meet contact time to be effective.

A.



MP: Yes, surfaces must be wet with the liquid disinfectant for the minimum dwell time for the contractor to be able to claim that they have applied it properly.

Q. Surrogate Clearance = contact time?

A.



MP: Yes, documenting the process of the disinfectant application is a surrogate method that can be used as compared to post-remediation testing. A stronger documentation package is to confirm 12 times and do some post remediation visual inspection/sampling.

COVID-19 Technical Question and Answer

Q. Should HVAC systems be turned off during disinfectant applications assuming comfort is maintained?

A.  KR: Great question! Often restorers overlook the HVAC system as a means of distributing contaminants and potentially distributing disinfectants or other solutions that were not intended for the HVAC system. It is wise to turn off the system and block the vents if you have the ability to do so.

 MP: Yes! If that is not possible sealing the return air vent at a minimum and adding tackified filter media to the supply vents is a reasonable alternative.

Q. Should HEPA vacs and air scrubbers be used in the COVID-19 process? COVID-19 is .16 microns and HEPA filtration is rated at .3 microns

A.  MP: HEPA filtration captures particles smaller than .3 μ . The filtering efficiency is checked at that level because particles in that size range are the most difficult capture. As such, particles greater than .3 μ and particles smaller than .3 μ actually have a higher capture efficiency than the 99.97% listed on the filter.

Q. So are you saying that you cannot use electrostatic sprayers for applications of disinfectants?

A.  MP: No one on the panel indicated that you couldn't or shouldn't use electrostatic sprayers. There was a comment made that those sprayers are in short supply right now.

 KR: You have to look at your delivery mechanism and make sure that regardless of the system you are using that your disinfectant will work in the method of delivery. It will achieve the contact time you require.

COVID-19 Technical Question and Answer

Q. So many contractors are offering fogging services only, with no washing services. What is the best way to educate customers who are being sold the idea of this service or are seeking this service only?

A.  MP: This whole issue is being addressed in the second edition of the RIA/IICRC documents. The instructions for most EPA registered disinfectants state that they must be applied to a clean surface. It is difficult for contractors to prove that they applied the disinfectant according to the manufacturer's instructions if they don't preclean the surfaces.

 KR: I agree, there are contractors who are taking that approach. However, I know there are other restorers who are placing the responsibility of cleaning on the customers shoulders and they are coming in to perform the second part of the process. At the end of the day there will be a group of customers who want to be seen doing something, and they are not necessarily concerned with the result. This can easily be confused with a customer wanting the result and not understanding the process.

For those customers you will have access to our recorded webinar and you can direct them to the part where this is discussed by the panel. It will provide you a third party validation that what you're saying is correct and will help educate your client/potential client.

Q. What effect does humidity and air flow in the air handling system have on the viability of the virus?

A.  MP: Surprisingly, drier air seems to be more effective as a medium for allowing the coronavirus to spread than warm humid air.

 NG: There is some emerging evidence that while warm moist air density inhibits particulate spread it may allow the virus to remain viable in the environment for a longer period of time.

COVID-19 Technical Question and Answer

Q. We are a condo remodeler and utilize HEPA air scrubbers with negative air and use distancing, gloves, and n95 masks when remodeling. Is there anything we could do additionally to maintain a safe jobsite?

A.  MP: Be extra conscious of maintaining a dust free job site to the extent possible. Viral particles from sneezing and coughing hang in the air a lot longer when there are high dust levels. Many of the research studies showed that the coronavirus has much further transmission distances in cities with high levels of air pollution, especially high levels of small particulate matter (PM 10 and below).

 KR: Great job! I applaud your efforts to protect your staff while trying to maintain service to your customer.

Q. Do you need to shut down the HVAC system when doing a COVID cleaning in a large commercial facility?

A.  MP: Depending on the reason for the cleaning, secondary contact versus unknown infectious cases in the building, you may want to shut down the HVAC system so it can be cleaned along with the area cleaning and application of disinfectants.

 KR: The nice thing with commercial buildings is that you are often presented with various heating zones that allow you to isolate work areas and shut those systems down in specific areas. It is mitigating the risk of working in those spaces and another way of performing the work while reducing the risk of any cross contamination. Definitely document your processes and/or have those discussions with the building owner about what you intend to do and why.

COVID-19 Technical Question and Answer

Q. We have a lab that is stating they will have swab type testing for COVID-19. If we take a random sampling of horizontal surfaces, would that be a good “clearance” type testing to prove we covered the application of disinfectant... or should we not even bother with testing because then we are taking the contract from application to trying to prove we disinfected?

A.  MP: Such testing may become available in the next weeks/months. In that case, having the help of an IPP who understands how to determine representative sampling would be the best approach. Just taking random samples without a real plan is never a good idea, regardless of the results.

Q. What are your thoughts around supplying air scrubbers to hospitals...would we want these machines back at any point?

A.  MP: Depending on local circumstances supplying air scrubbers to supplement negative pressure patient rooms can be a valuable service. If a restoration contractor does not have the confidence that they can clean their own equipment then why would a client want them cleaning their building?

 KR: Regardless if you are charging the client for those pieces of equipment or not I believe there is value in a hospital using them. Sometimes it is just as much about the psychological impact of seeing air scrubbers as it is about the function of them. Allowing air scrubbers to run in hallways, waiting rooms and other parts of the hospital may provide a reduction in particulate, hence reducing the effectiveness of airborne COVID-19. If you have a surplus of equipment and the hospitals can use them/rent them I wouldn't withdraw them from the hospital.

COVID-19 Technical Question and Answer

Q. Are there any pre-activities that the building should engage in prior to our arrival in a known or suspected case? And what should be done with the papers on the desks?

A.



MP: For office buildings the biggest issue is the management of paper products that are on the desk and open cabinets. Pre-work activities building owners take are going to depend on the type of facility. Production facilities may have to take certain shutdown steps and lockout electrical sources so that there are no problems when surfaces are being cleaned or disinfectants are being applied as a spray/fog.



KR: Educating the customer is probably the best thing you can do prior to your arrival. Be very clear and firm in setting expectations with the customer. Discuss your processes and how success is achieved to ensure you are both on the same page. Finally, you might want to narrow down the impacted area or floor that the suspected case was on and see what/if any additional steps they want taken.



NG: If possible, closing off the potentially affected areas for 5-7 days will allow enough time for the virus to degrade naturally to a safe level then do a thorough clean and apply disinfectants for confidence and peace of mind.

Q. Can you clarify what you mean by “Distancing” in a fire loss?

A.



MP: Keep workers that are using smoke sponges or other cleaning techniques at least 6 feet apart.



KR: Technically, your work processes will have to change and may slow down. In the past if you had someone holding the bag and the other technician was loading it, you may be down to a 1 person system. There are many instances where restorers are required to work in close proximity to each other to achieve the actions required on site. Changing your work habits can impact your productivity and you will want to note this especially if you are using unit pricing systems to charge for your work.

COVID-19 Technical Question and Answer

Q. What meter can test the HEPA devices in my shop, or on the job site? Or do you need to use a 3rd party? And finally do we need a label or sticker everytime we test?

A.  NG: In the U.S. make sure the particle meter is calibrated to the NIST standard and that you have a sticker on the particle counter with the date of calibration and calibrating entity. The meter needs to be calibrated annually.



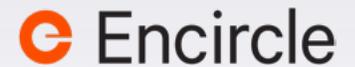
MP: A good quality laser particle counter can be effective to assist with the verification of HEPA filtered equipment.



KR: You will find that you will be able to test your devices at the shop and job site and it is critical to understand they are properly filtering. In some high risk sites you may want to have an independent 3rd party evaluation take place. In some jurisdictions you need to have an independent testing of the equipment. Regardless of the method of testing, I would encourage you to document these reads. You may want them on a sticker on the machine to make it easy to visually inspect it has been done (great for supervisors) but I would also have them in your job records and make sure you know the following:

- Who tested the equipment?
- Date/time/location
- What was the reading?
- Were any adjustments made to improve the reading?

COVID-19 Technical Question and Answer



NOTE: If you have more questions or need additional clarification you can contact any of the panelists.

The Experts



Ed Cross & Associates

Ed Cross, Esq "The Restoration Lawyer"
www.therestorationlawyer.com
edcross@edcross.com
760-773-4002
For your legal and contract needs.



Wonder Makers Environmental

Michael Pinto, CSP, CMP
www.wondermakers.com
1-888-382-4154
For your Infection Control, training, consulting and testing needs.



Gearhart & Associates

Norris Gearhart, CR
www.gearhartassoc.com
info@gearhartassoc.com
240-344-7017
For your Infection Control, training, consulting and business management needs.



Encircle

Kris Rzesnoski, CR
www.getencircle.com
marketing@getencircle.com
1-888-937-1077
To build your software processes and procedures to drive business efficiency.

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