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Lone Star COVID 19 Precautions

We have all had our lives and businesses disrupted due to COVID 19 no doubt. I am certainly no expert here and this article is not to be construed as professional advice, but to share what I have done as a business owner trying my best to look out for my people above and beyond the normal precautions to make our office environment safer. In my opinion, having people work from home or in remote offices is extremely hard for a company to maintain communication and culture; but moreover, this remote environment virtually removes the serendipitous events of working together. Some of the best ideas or plans are hatched from incidental unplanned conversations from my experience.

Lone Star has a detailed COVID policy including keeping guests masked and limited to meeting areas that have direct outside ventilation as to have no chance to contaminate the larger office, COVID visitor forms must filled out before being allowed to campus, as well as the usual mask requirements, good hygiene practices, hand sanitizer, social distancing etc.. This article is written to perhaps present some additional ideas that could be used in your office or home you might not have tried.

Ozone

Ozone is a very effective killer of viruses. In addition to the strong oxidizing power of ozone, properties of ozone also help it to be an ideal aerial disinfectant. In contrast to UV radiation and HEPA filter, ozone is a gas that could penetrate to every corners of the room, thus it could disinfect the entire room effectively. Ozone is one of the most powerful disinfectants. It is 50 times more effective at disinfection compared to the most popular disinfectant – chlorine, and the effects of its action are visible 3,000 times faster. The main advantage from the utilization of ozone to disinfection is the fact that ozone is generated on-site and only when needed.

Ozone (so-called trioxygen) is a blue gas, with a density greater than air, making it an ideal disinfectant for both air and water. It kills single and multicellular organisms with low cell specialization, i.e. bacteria, viruses (including COVID-19) or fungi. Until today it has not been scientifically confirmed that any micro-organisms are said to have become immune to the disinfectant effect of ozone.



Lone Star purchased and installed several industrial sized ozone generators that have timers. They run for one hour from 1am to 2am every night. In addition to destroying viruses, bacteria, mold it leaves a very pleasant fresh scent the employees have commented to this fact. Ozone dissipates in less than one hour so it will be safe for people to enter in a short time. Exposure to Ozone is not good for people, plants or any organic matter so yeah, no plants can be in the office and there was one cactus casualty reported from its use here, so be careful!

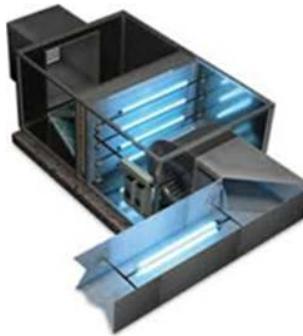


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UVC

This is a type of ultraviolet light distinctly different than UV, UVA or UVB type. UVC radiation is a known disinfectant for air, water, and nonporous surfaces. UVC radiation has effectively been used for decades to reduce the spread of bacteria, such as tuberculosis. For this reason, UVC lamps are often called "germicidal" lamps.

UVC radiation has been shown to destroy the outer protein coating of the SARS-Coronavirus (COVID-19). The destruction ultimately leads to inactivation of the virus efficiently and safely inactivates airborne human coronaviruses. UVC radiation can only inactivate a virus if the virus is directly exposed to the radiation (line of site). UVC radiation is commonly used inside air ducts to disinfect the air. This is the safest way to employ UVC radiation because direct UVC exposure to human skin or eyes may cause injuries, and installation of UVC within an air duct is less likely to cause exposure to skin and eyes. There have been reports of skin and eye burns resulting from improper installation of UVC lamps in rooms that humans can occupy.



Lone Star installed UVC light at the air filter intakes in the HVAC system as well as directly on the condenser coils itself. In addition, we put a UVC lamps on every working area and kitchen area to directly affect commonly touched surfaces such as keyboards, mouse etc. We have these lights configured on a common remote timer and they run for approximately 1 hour after the last person leaves for the night.

Foot Doors

To avoid hand to hand contamination we made all doors available to function using your foot to open or close vs using your hand. We blocked the door latch and where appropriate put automatic returns to close the doors that should always remain closed.





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Sneeze Guards

Besides the urge to sneeze every time I walk past them...(humor), these type dividers have been put in all meeting areas or used to separate areas that we could not move people away from. We have noticed the need to talk a bit louder than normal to counter the sound refracting off the plexiglass but beyond that have adjusted to having them as part of our daily life.

HEPA Air Filters

HEPA (high efficiency particulate air) filters claim to filter particles down to 0.3 microns (0.3 micrometers, or 300 nanometers). Most viruses vary in diameter from a mere 20 nanometers (that's 0.02 microns, or 0.00002mm) up to 400nm (0.4 microns); some are bigger still. A typical coronavirus is about 100 nanometers, or 0.1 microns, in diameter. That puts the coronavirus, and most other viruses, well below the particle size that a HEPA filter can claim to trap. HEPA filters only help to remove particulates from the air that could contain COVID-19 but even the best air purifiers only trap a small percentage of germs.

Since it was an easy low cost upgrade, we also added these to all ventilation systems on the property even if it was mildly effective.

Anyway, I hope this article helps others in their quest to provide a safer work environment or home environment. Besides its effects it gives people piece of mind that we are trying our best to provide a safe environment for them to work. I just thought I would share. Any suggestions you might have drop me an email!

Regards,

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References: www.fda.gov, www.nationalacademies.org, www.choice.com

