



Commercial Facilities Best Practices

Best Practices for Cleaning and Disinfection for COVID-19

Cleaning vs Disinfecting

- The CDC has provided documentation on cleaning and disinfection of surfaces that may contain COVID-19 and many other viruses that lead to a respiratory illness. The CDC defines the following:
 - **Cleaning** refers to the removal of germs, dirt, and impurities from surfaces. Cleaning does not kill germs, but by removing them, it lowers their numbers and the risk of spreading infection.
 - **Disinfecting** refers to using chemicals to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs, but by killing germs on a surface after cleaning, it can further lower the risk of spreading infection.

How it Spreads

- **Person-to-person spread is the primary mode of transmission**
 - Between people in close contact with one another (about six feet)
 - Through respiratory droplets when an infected person coughs or sneezes
- **Contact with infected surfaces or objects**
 - It may be possible to get COVID-19 by touching surfaces or objects that the virus is on and then touching your mouth, nose, or eyes
- The CDC has provided documentation on cleaning and disinfection of surfaces that may contain COVID-19 and many other viruses that lead to a respiratory illness.

CDC Guidance on Reopening



REOPENING AMERICA

GUIDANCE FOR **CLEANING & DISINFECTING** PUBLIC SPACES, WORKPLACES, BUSINESSES, SCHOOLS, AND HOMES

1 DEVELOP YOUR PLAN

DETERMINE WHAT NEEDS TO BE CLEANED. Areas unoccupied for 7 or more days need only routine cleaning. Maintain existing cleaning practices for outdoor areas.

DETERMINE HOW AREAS WILL BE DISINFECTED. Consider the type of surface and how often the surface is touched. Prioritize disinfecting frequently touched surfaces.

CONSIDER THE RESOURCES AND EQUIPMENT NEEDED. Keep in mind the availability of cleaning products and personal protective equipment (PPE) appropriate for cleaners and disinfectants.

Follow guidance from state, tribal, local, and territorial authorities.

2 IMPLEMENT

CLEAN VISIBLY DIRTY SURFACES WITH SOAP AND WATER prior to disinfection.

USE THE APPROPRIATE CLEANING OR DISINFECTANT PRODUCT. Use an EPA-approved disinfectant against COVID-19, and read the label to make sure it meets your needs.

ALWAYS FOLLOW THE DIRECTIONS ON THE LABEL. The label will include safety information and application instructions. Keep disinfectants out of the reach of children.

3 MAINTAIN AND REVISE

CONTINUE ROUTINE CLEANING AND DISINFECTION. Continue or revise your plan based upon appropriate disinfectant and PPE availability. Dirty surfaces should be cleaned with soap and water prior to disinfection. Routinely disinfect frequently touched surfaces at least daily.

MAINTAIN SAFE PRACTICES such as frequent handwashing, using cloth face coverings, and staying home if you are sick.

CONTINUE PRACTICES THAT REDUCE THE POTENTIAL FOR EXPOSURE. Maintain social distancing, staying six feet away from others. Reduce sharing of common spaces and frequently touched objects.

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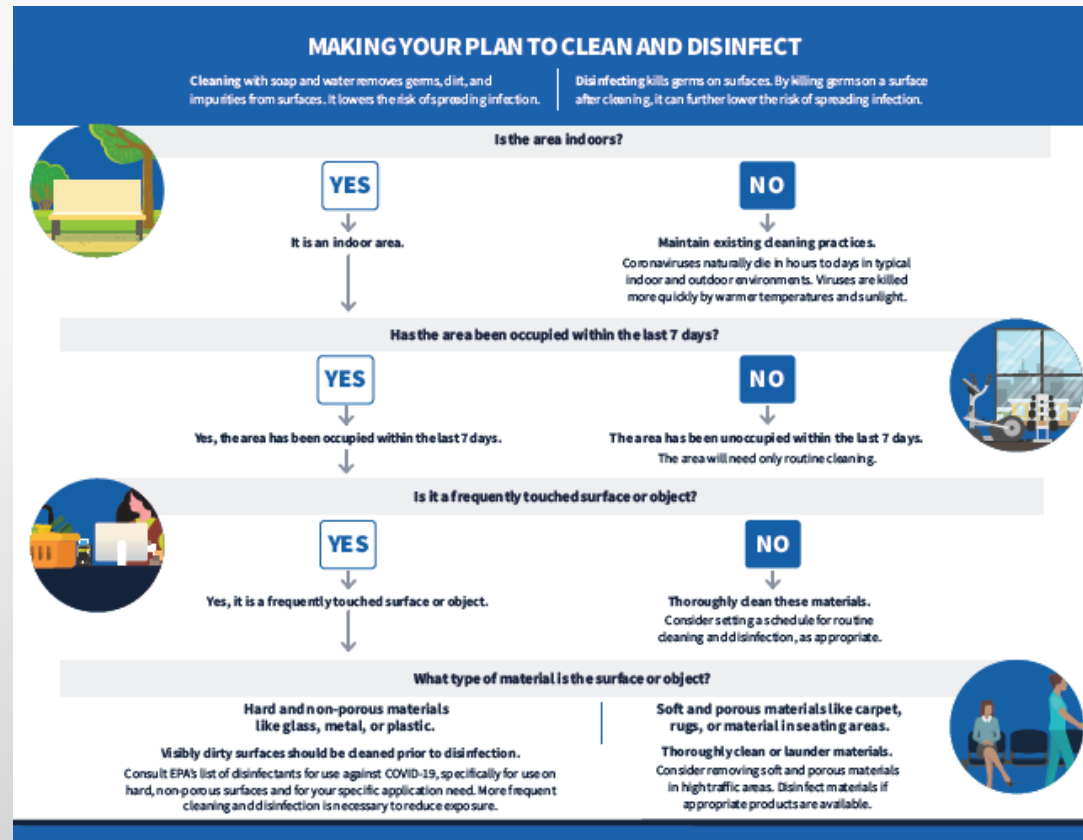
For more information, please visit **CORONAVIRUS.GOV**

- Follow the CDC Guidance on Reopening
 - https://www.cdc.gov/coronavirus/2019-ncov/community/pdf/ReOpening_America_Cleaning_Disinfection_Decision_Tool.pdf
- Follow CDC Guidance for management of contacts of persons With COVID 19
 - <https://www.cdc.gov/coronavirus/2019-ncov/php/public-health-recommendations.html>
- Guidance on the Essential Critical Infrastructure workforce
 - <https://www.cisa.gov/publication/guidance-essential-critical-infrastructure-workforce>
- Interim U.S. Guidance for Risk Assessment and Public Health Management of Healthcare Personnel
 - <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html>

This document contains **BEST PRACTICES** that can be used to comply with Governor Jim Justice's guidance outlined in the West Virginia Strong – The Comeback plan.

Please visit www.governor.wv.gov/The-Comeback.aspx or www.coronavirus.wv.gov for more information.

Making Your Plan



1. Follow CDC Guidance for Cleaning and Disinfection for Community Facilities

- <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html>

2. Follow the CDC Resources for Businesses and Employers

- <https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/businesses-employers.html>

3. Follow the CDC Guidance on Preparing the Workplace for COVID-19

- <https://www.osha.gov/Publications/OSHA3990.pdf>

4. Follow OSHA Guidelines for Hazard Communications

- <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>

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General Cleaning / Disinfecting Guidance

- PPE
 - Staff should evaluate and provide their workers with PPE needed to keep them safe while performing their jobs.
- The types of PPE required during a COVID-19 outbreak will be based on the risk of being infected with SARS-CoV-2 while working and job tasks that may lead to exposure
- Wear PPE for cleaning and disinfection
 - Staff should check the OSHA and CDC websites regularly for updates about recommended PPE.

Refer to - Guidance on Preparing Workplaces for COVID-19, OSHA 3990-03 2020 -<https://www.osha.gov/Publications/OSHA3990.pdf>

General Cleaning / Disinfecting Guidance

- Minimum PPE is disposable gloves and mask - All types of PPE must be:
 - Selected based upon the hazard to the worker.
 - Properly fitted and periodically refitted, as applicable (e.g., respirators).
 - Consistently and properly worn when required.
 - Regularly inspected, maintained, and replaced, as necessary.
 - Properly removed, cleaned, and stored or disposed of, as applicable, to avoid contamination of self, others, or the environment.
- Gloves should be discarded after each cleaning/disinfection session

Refer to - Guidance on Preparing Workplaces for COVID-19, OSHA 3990-03 2020 -<https://www.osha.gov/Publications/OSHA3990.pdf>

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General Cleaning Guidance

- How to clean:
 - If surfaces are dirty, they should be cleaned using a detergent or soap and water
 - Sensitive items such electronics and microphones can be wiped with isopropyl alcohol wipes to avoid harming the item.
- Don't mix incompatible cleaning materials.
- See additional information on cleaning products in Attachment:
 - Do not mix bleach and ammonia
 - Do not mix bleach and acids
 - Do not use two drain cleaners together, or one right after the other

Documentation

- Set up disinfection check sheets and use them for each Gathering with who performed the activity.
- Short video documentation of each Gathering activity in case challenged.

General Disinfecting Guidance

- The following consideration should be taken:
 - Educating staff and occupants about the importance of control measures, i.e. removal of barriers, Covers, disinfectants being used in the area.
 - Preparing of the site, follow all OSHA, AIA, CDC, ASHRE guidance for building barriers
 - Notifying and issuing advisories for staff, patients, and visitors, follow all OSHA, NIOSH, EPA, AIA, CDC, ASHRE guidance
 - Moving staff and relocating patients/occupants as needed, follow all OSHA, AIA, CDC, ASHRE guidance
 - Issuing precautions for staff and occupants of the building/area during disinfection, follow all OSHA, AIA, CDC, ASHRE guidance
 - Monitoring for adherence to control measures during disinfection, follow all OSHA, AIA, CDC, ASHRE guidance
 - Monitoring HVAC performance
 - Clean-up, area cleaning to remove excess disinfectant and removal of debris upon completion
 - Ensuring the integrity of any drinking water system i.e. sinks / fountains after disinfection, have been cleaned of residue and is safe for use

Employee Personal Hygiene - General

- Obtain temperature for staff, contractors, and all other people (i.e. people seeking employment, salesman, deliveryman, postman, repairman) before entry to the building. Anybody with a temperature above 100F is denied access and needs to see a physician. See attached form for Staff and others.
- Staff report to their supervisor, see a doctor and stay away from fellow colleagues if they are not well.
- Staff, Contractors and others always wear a mask or facial covering except at breaks.
- Ensure there are hand sanitizing stations present at entry and throughout the building.
- Ensure everybody entering has disinfected their hands or gloves.
- Practice good personal hygiene (e.g. wash hands with soap and water before and after meals, after clean-up is carried out, after handling refuse or other dirty items and after visiting the toilet).

Employee Personal Hygiene – General (cont.)

- Use gloves when carrying out cleaning work and when handling waste.
- Disinfect hands between each prisoner contact.
- People should refrain from touching their exposed body parts such as face and arms with soiled hands / gloves.
- Discourage sharing of computers, tablets, desks, chairs, phones, pens, and pads and other work tools and equipment.
- New Employees must be tested for Covid-19.

Pre-Opening to Public

- Has your H&V system been turned off during the period that you have been closed – If no continue to Cleaning. If Yes you will need to evaluate whether you need to have the system cleaned due to potential Legionnaires Disease Concern.
- Clean your facility using your normal cleaning methods.
- Social distance chairs.
- Disinfect all public surface areas, including floors and bathrooms, with a disinfectant solution – see attached listing.

Patrons Entering Facilities

- Obtain temperature of patron as they enter facility. Anybody with a temperature above 100F is denied access.
- Have patrons disinfect hands (gloved or ungloved) prior to entry.
- Patrons should wear a facial covering or mask.

Frequent Facility Disinfecting

- Clean with normal agents if required.
- Disinfect frequently touched areas such as handrails, elevator buttons, doorknobs, letter box, notice boards, digital displays, touch screen panels, shopping carts and baskets per each use, food conveyor belts, tables and chairs in the common areas with disinfectant at least once per shift or more frequently as needed.
- Other commonly used items / surfaces must be evaluated for each business for disinfection.

Facility Cleaning Operations

- Assign a team of workers to carry out cleaning and disinfecting.
- Wear PPE for cleaning and disinfection. Minimum PPE is disposable gloves.
- Gloves should be discarded after each cleaning/disinfection session.
- If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.

Facility Cleaning Operations (cont.)

- Disinfect floors daily by mopping or vacuuming.
- The personnel doing the disinfecting should soak cleaning cloths in disinfectant and laundry the cloth after daily use or use disposable wipes.
- Development of a cleaning/disinfection check sheet should be done.
- Notifying and issuing advisories for staff, customers, and visitors, must follow all OSHA, NIOSH, EPA, AIA, CDC, ASHRE guidance

Facility Cleaning Operations (cont.)

- Use disinfectant in all mopping operations in addition to normal agents. Mop floors daily. Do not mix incompatible cleaning materials. See additional information on cleaning products.
 - Do not mix bleach and ammonia.
 - Do not mix bleach and acids.
 - Do not use two drain cleaners together, or one right after the other.
- Use vacuums with HEPA filters. Vacuum daily.
- Ensure trash cans are always covered and cleared daily. Tie refuse contained in plastic bags properly before disposal at the trash dumpster.
- Clean up any refuse spillage immediately.
- Wash and disinfect all indoor trash receptacle and trash receptacle chambers regularly.
- Clean and disinfect all cleaning equipment immediately after use such as buckets and mops.

Parking Lots

- Determine who is responsible for parking / sidewalk cleaning, disinfecting, and frequency of cleaning.

Facility Mass Disinfection

- Disinfection of the building (floors, walls, frequently touched items) must be done before the daily building opening.
- This can be done a variety of ways
 - Use of room UVC disinfection systems Wavelength must be 260-285
 - Oxone disinfection systems
 - Electrostatic sprayers using hydrogen peroxide
 - Hydrogen peroxide vapor disinfection systems
 - Paint sprayer disinfection system

Restroom Facilities

- Disinfect frequently touched areas such as water taps, door/towel/toilet handles, seats and cover flaps, wash basins, doorknobs, buttons, and switches with every 8 hours. This includes Public and Staff facilities.
- Provide adequate supply of toilet paper, paper towels or hand dryers and liquid soap.
- Provide hand disinfection.

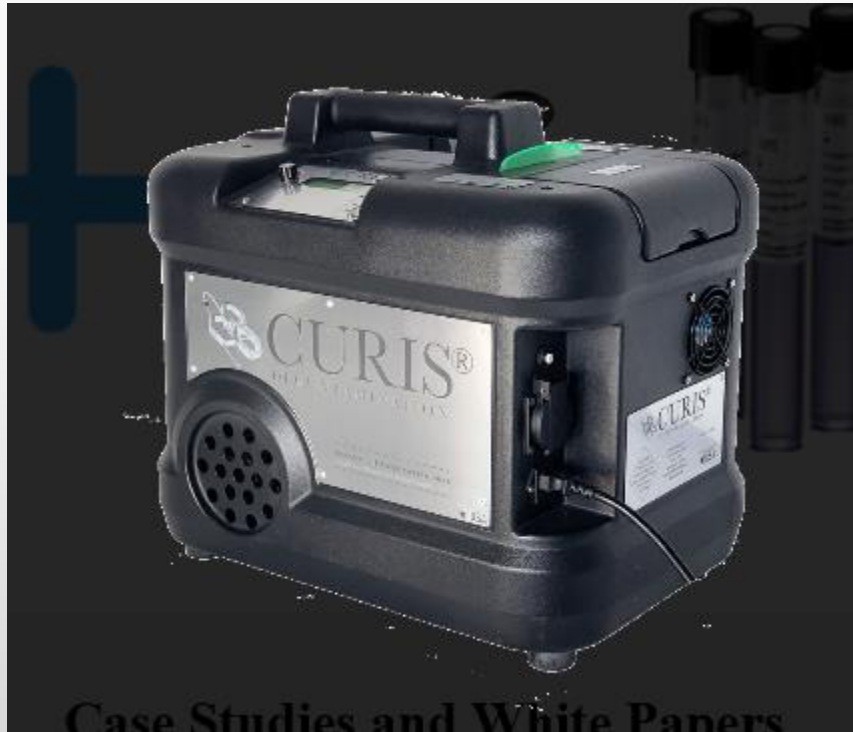
Food Hygiene – Employee Lunchroom

- Cover food properly to prevent contamination.
- Do not keep personal belongings in food preparation areas. A separate locker area should be provided for storage of staff's personal belongings.
- Do not use cracked or chipped crockery as germs can harbor in cracks.
- Use separate chopping boards, knives, and other instruments for raw and cooked foods to prevent cross contamination.
- Use clean disposable gloves when handling food.
- Store raw food or cooked/ready-to-eat food separately.

Attachments

Methods for Disinfection:

Fogging - should only be used when the area can be isolated from other areas and occupants.



- Pros:

- Allows the fog/mist to achieve maximum efficacy by maintaining an optimal filled space creating a consistent dwell-time
- Ability to treat large areas without PPE
- No worry about proper application of disinfectants

- Cons:

- Facility requirement to follow all OSHA, NIOSH, EPA, AIA, CDC, ASHRE guidance
- Movement of equipment/staff/occupants from area
 - Area must be sealed
 - Monitoring
 - Air sampling

Fogging

- Fogging requires the development of a checklist due to:
 - Covering of Life Safety Sensors - All smoke detectors regardless of type must be covered, after disinfection the covers must be removed
- Covering of other sensors/cameras/antennas used to monitor the area / patent – all motion sensors, cameras, etc. must be covered and disinfected by hand if they will be damaged by the fogging process
- Sealing of the room/hallway/common area/changing room/etc. – the area to be fogged must be sealed to prevent any leakage into other areas
 - Central HVAC systems that are zone controlled will need the zone being fogged switched off and to ensure there is no leakage into other areas sealing of vents may be required Follow guidance, Guidelines for Environmental Infection Control in Health-Care Facilities (2003), 3. Heating, Ventilation, and Air Conditioning Systems in Health-Care Facilities
 - <https://www.cdc.gov/infectioncontrol/guidelines/environmental/background/air.html#c4a>

Electrostatic Sprayer/Compressed Air Sprayer / Bottle Sprayer

Electrostatic



Air Sprayer



Bottle Sprayer



Methods for Disinfection:

Spraying



Pros and Cons

- Pros:
 - Can use inexpensive equipment like garden sprayers and paint sprayers
 - Ability to treat large areas with minimal PPE
 - Electrostatic sprayer is best of the spraying technologies
- Cons:
 - Electrostatic sprayers are expensive and in short supply
 - May require use of PPE in enclosed areas for some spray materials
 - May require movement of equipment / staff / occupants from area

Sprayers

- When using the handheld or man pack sprayer always follow the manufacturers guidelines and keep the unit level.
- Best Practice - use a solution that does NOT contain a surfactant (soap).
 - See list of disinfectants in attachment
- Doing so will eliminate the need to clean the surfactant residue from the floor.

Approved Disinfectant List

- Any commercial product with EPA Registration on the Label that says disinfectant.
- Hydrogen peroxide 1%
 - Dilute household (3%) peroxide 1-part peroxide to 3-parts water
 - Dilute Pool Peroxide (27%) 1/3 cup per gallon of water
 - Food grade peroxide (30%) ¼ cup per gallon of water
- Bleach
 - household bleach solutions (5%) 5 tablespoons household bleach per gallon of water
- Hypochlorous acid (DiChlor) solution
 - We have found, that in practice, this does not leave a slippery surface when allowed to dry.
 - Both the Artemis Chem Decon and GenEon hypochlorous solutions are appropriate for carpeted areas.
- CDC Listing
 - <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/disinfection-methods/chemical.html>
- EPA Listing
 - <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

Approved Disinfectant List

- **Using Other Products**

- If you can't find a product on this list to use against SARS-CoV-2, look at a different product's label to confirm it has an EPA registration number and that human coronavirus is listed as a target pathogen.

- **Follow the Label**

- When using an EPA-registered disinfectant, **follow the label directions** for safe, effective use.
- Make sure to follow the contact time, which is the amount of time the surface should be visibly wet, listed in the table below.

Cleaning Product Incompatibilities

- **What is chlorine bleach?**
 - Sodium hypochlorite is the active ingredient in chlorine bleach. It is found in household bleach and many other disinfectants. Sodium hypochlorite reacts with ammonia, drain cleaners, and other acids. Many household products state that they contain bleach on the label. Pool chemicals frequently containing calcium hypochlorite or sodium hypochlorite, should not be mixed with household cleaners, and used carefully.
- **Where are ammonia and acids found in the home?**
 - Ammonia:
 - In addition to ammonia purchased as a cleaning product, ammonia may be found in the following:
 - Some glass and window cleaners
 - Urine
 - Some interior and exterior paints
 - Acids:
 - Products containing acids include:
 - Vinegar
 - Some glass and window cleaners
 - Some automatic dishwasher detergents and rinses
 - Some toilet bowl cleaners
 - Some drain cleaners
 - Some lime, calcium, and rust removal products
 - Certain types of brick and concrete cleaners

Employees and Non-Patrons Check In Form

Print Your Name:		Personal Phone# (cell or home phone number)	
Employer/ Affiliation:		If visitor, supplier, or subcontractor, who is your Host?	
Temperature Check		Today's Date	
Question Number	Questions	Response NO	Response YES
1	Have you been in close contact with, or cared for, anyone who has been diagnosed with COVID-19 within the last 14 days?		
2	Have you traveled in any areas with high Covid-19 concentrations / hot spots within the last 14 days?		
3	Have you been in close contact with anyone who has traveled in any areas with high Covid-19 concentrations / hot spots within the last 14 days?		
4	Have you had a sudden change in your breathing pattern such as shortness of breath?		
5	Have you had a sudden change in your cough status?		
6	Have you had a sudden loss of taste?		