



Interim Guidance: Operating a Cleaner Air Site During the COVID-19 Pandemic

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The following guidance was developed by the San Francisco Department of Public Health for use by local facilities and will be posted at <https://www.sfgdcp.org/covid19> under “Cleaner Air Sites and COVID-19”. This interim guidance may change as knowledge, community transmission, and availability of PPE and testing change.

AUDIENCE: Organizations and locations operating as **Cleaner Air Sites** during an **unhealthy air quality event** like in the case of wildfires. These sites include Community Based Organizations (CBOs), Faith Based Organizations (FBOs), and public buildings.

The CDC states, “the use of cleaner air shelters and cleaner air spaces can result in congregating of groups of people, including older adults and those with heart or lung conditions. Congregation of people in cleaner air shelters and cleaner air spaces can potentially provide a route for the transmission of SARS CoV-2, the virus that causes COVID-19, among individuals using the facilities, staff, and volunteers.”

BACKGROUND: Poor air quality from wildfire smoke is a public health safety concern. The Covid-19 pandemic presents additional complications when operating a Cleaner Air Site. The purpose of this document is to provide guidance to organizations/building sites who would like to provide respite from smoke or other unhealthy air quality events as Cleaner Air Sites. It is organized first by providing guidance on how to set up a Cleaner Air Site to mitigate the spread of Covid-19, followed by ventilation guidance for unhealthy air quality events, and ends with a list of resources.

Prepare

Assess and modify the location to create a safer space

- [According to the CDC](#), at a minimum, cleaner air shelters and cleaner air spaces (public spaces where people can seek relief from wildfire smoke), should have central air conditioning with filtration that is medium or high efficiency.
- Adjustments to your Heating, Ventilation and Air Conditioning (HVAC) systems must comply with all applicable building codes.

Cleaning and Disinfection: Review [SFDPH guidelines on cleaning and disinfectant safety](#) and [Personal Protection Equipment \(PPE\)](#).

- Disinfect surfaces touched by guests frequently. If guests are designated a specific table or chair, disinfect those surfaces between guests. [Follow instructions on disinfectants](#).
- Disinfect high touch surfaces (e.g. door handles, counter tops and faucets) frequently.

Capacity and Layout: Follow all of the [Best Practices in the Social Distancing and Health Protocol](#). To ensure adequate social distancing, FEMA recommends measuring the space and determine the capacity based on one occupant per 100-150 square feet, including staff. This formula is to help Cleaner Air Sites approximate



capacity limits and may be adjusted as multiple people from the same household enter and cluster together. You may need to change the physical layout of the space to help social distancing for visitors and personnel. Modifications include:

- Creating separate entrances and exits;
- Marking spaces with tape or other decals to indicate six-foot distances;
- [Posting signs](#) throughout reminding staff and visitors of hand washing and the proper way to wear a face covering;
- If there is a line to get into the cleaner air site, make sure that parties maintain at least six feet apart from each other and from customers who may be waiting in line for other businesses nearby. People must be able to freely move on the sidewalk; address traffic, bike lane or mobility safety issues specific to your location.

Supplies:

- Hand sanitizer should be available at all entrances and exits.
- Have extra face coverings available for visitors in need of a mask.
- Keep your hydration station stocked with cool water. Assign one staff person to hand out water, ice, or coldpacks. If possible, provide these items to visitors during the check in process.

For Personnel:

- Personnel must wear a face covering at all times.
- Employees should wash their hands frequently or use hand sanitizer if soap and water are not available.
- Keep track of who worked each shift in order to facilitate contact tracing in case anyone develops COVID-19.

Managing Visitors:

Before allowing visitors to enter the cleaner air site:

- Screen visitors with the following questions:
 1. Within the last 10 days have you been diagnosed with COVID-19 or had a test confirming you have the virus?
 2. Do you live in the same household with, or have you had close contact with someone who in the past 14 days has been in isolation for COVID-19 or had a test confirming they have the virus?
 3. Have you had any one or more of these symptoms today or within the past 24 hours, which is new or not explained by another reason?
 - Fever, Chills, or Repeated Shaking/Shivering
 - Cough
 - Sore Throat
 - Shortness of Breath, Difficulty Breathing
 - Feeling Unusually Weak or Fatigued
 - Loss of Taste or Smell
 - Muscle pain
 - Headache
 - Runny or congested nose
 - Diarrhea

If visitors answer YES to any of these questions, exclude them from the cleaner air site. You may give them the following handout for instructions on what to do if they answered YES to any of



these questions: sfcdcp.org/screening-handout

- Request visitors to voluntarily provide contact information in case someone in the cleaner air site later develops COVID-19 and there is a need to contact them to assess their risk.
- Visitors should wash their hands with soap and water for 20 seconds (and use a paper towel to turn off the faucet and open doors) or use hand sanitizer upon entry.

Assign individuals or parties to a designated chair/table, if using:

- Visitors may move about as long as they remain six feet apart from people not in their household.
- Disinfect chair/table between visitors

Establish rules and ensure visitors follow them:

- Visitors must wear a face covering over their mouth and nose at all times, except when eating or drink
 - Encourage children under 10 to wear a face covering but do not exclude the group if the child does not comply
 - Children under 2 should NOT wear a face covering due to choking concerns
- Do not allow shouting or singing because these activities can increase the spread of the COVID-19 virus
- Food, drinks, and items are not to be shared with anyone not in the same household.

Ventilation Guidance

- Cleaner Air Sites in buildings without mechanical ventilation systems (HVAC) are not recommended for Cleaner Air Sites.
- Where air quality and filtration can be improved by increasing the level of filter in the HVAC system or by using portable air filtration systems, cleaner air sites should strive to do so.
- Where possible, set building HVAC systems to minimize but not eliminate fresh air intake.
- Sites will need to decrease occupancy to allow for proper social distancing to minimize the risk of COVID transmission.

The following bullet points summarize guidance for using air filtration systems to mitigate bad air quality. These guidelines should not replace the specific expertise provided by building safety engineers.

HVAC Systems: HVAC system filters typically have a Minimum Efficiency Reporting Value, or “MERV rating.” which ranges from MERV1 to MERV 16. The higher the MERV rating, the more and smaller particles are captured as the air passes through the filter.

SFDPH discourages locating Cleaner Air Sites in buildings that don't have functioning mechanical ventilation (HVAC) systems.

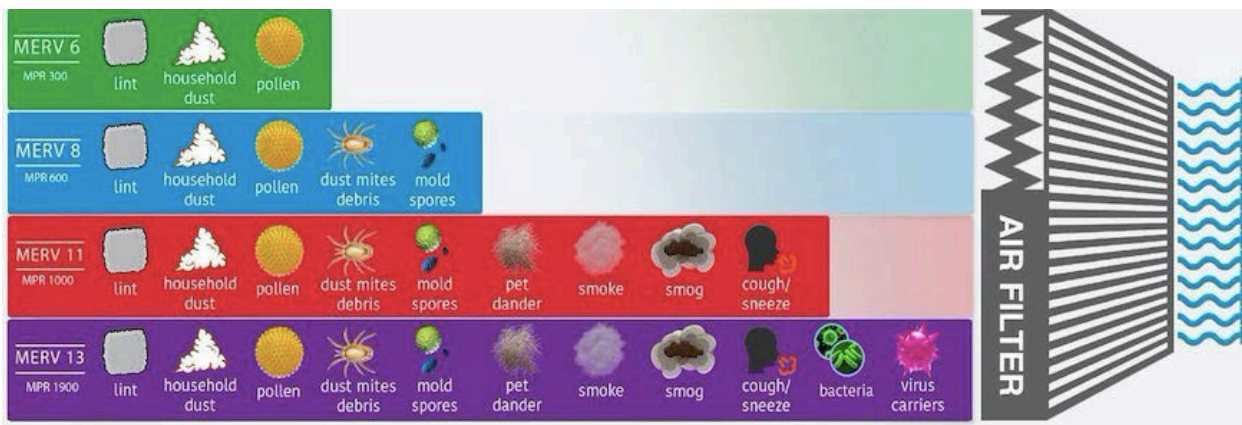
16. filter

- Although the CDC and other trusted sources commonly recommend MERV 13 filters for wildfire smoke, this is not a simple retrofit. Sites should endeavor to install the highest MERV-rated filter possible; although they may not effectively out the smallest and most dangerous smoke particles, they may provide an aesthetic improvement that can be beneficial.
- Regardless of filter ratings, HVAC systems need to have their filters properly fitted and sealed to prevent leakage around filter media. Duct joints and other points in the HVAC system need to be



properly sealed to prevent infiltration of smoke.

- In many HVAC systems, the amount of fresh air (and smoke) being brought into the building can temporarily be altered by adjusting the fresh air intake dampers during wildfire smoke event.
 - Adjustments must be made in consultation with a building engineer or HVAC technician to ensure there are is an adequate amount of fresh air entering the building for the occupancy.
 - Altering the fresh air intake settings can also alter the building’s air pressure balance. Buildings commonly prevent infiltration of outside air by maintaining a slight positive pressure. Improper alterations can draw in outside air through unfiltered openings.
 - Since lower MERV rated filters do not filter out viruses such as SARS-CoV-2, reducing the fresh air intake may undermine any COVID-19 risk mitigation benefits being achieved through the ventilation system operation.



- HVAC systems are commonly designed to “throttle back” when there are lower occupancy levels such as during nights and weekends. During wildfire smoke events systems can be reset to operate continuously to maximize particle removal. This will increase operating costs and potentially shorten the life of HVAC system components and filters.
- [According to the CDC](#), at a minimum, cleaner air shelters and cleaner air spaces (public spaces where people can seek relief from wildfire smoke), should have central air conditioning with filtration that is medium or high efficiency.

Portable Air Cleaners (PACs): Indoor contaminants can be further reduced by using portable, stand-alone air cleaners.

- To be effective, PACs need to be matched to the size of the indoor space. Depending on the level of filtration and amount of air filtered through portable air filters, sites may need to decrease occupancy or increase spacing to minimize the risk of COVID transmission as fresh air is decreased.
- [The Association of Home Appliance Manufacturers \(AHAM\)](#) maintains a certification program for air cleaners. The AHAM seal on the PAC’s box lists Clean Air Delivery Rate (CADR) numbers for tobacco smoke, pollen, and dust.
 - Higher CADR numbers indicate the PAC is capable of filtering greater volumes of air in the same unit of time.
 - For wildfire smoke, units with a tobacco smoke CADR at least 2/3 of the room’s area are a good choice.



Resources

- San Francisco Department of Public Health (SFDPH)
 - <https://www.sfcidcp.org/covid19>
- Air Quality + COVID-19
 - <https://www.sf72.org/hazard/air-quality-covid-19>
- Centers for Disease Control and Prevention (CDC)
 - Public Health Strategies to Reduce Exposure to Wildfire Smoke during the COVID-19 Pandemic
https://www.cdc.gov/disasters/covid-19/reduce_exposure_to_wildfire_smoke_covid-19.html
 - Wildfire smoke and Covid-19 FAQ
<https://www.cdc.gov/coronavirus/2019-ncov/php/smoke-faq.html>
 - Covid -19 considerations for cleaner Air Shelters/Spaces
<https://www.cdc.gov/coronavirus/2019-ncov/php/cleaner-air-shelters.html>
- Wildfire Smoke: A guide for public health officials
 - <https://www3.epa.gov/airnow/wildfire-smoke/wildfire-smoke-guide-revised-2019.pdf>
- Guidance for Building Operations During the COVID-19 Pandemic
 - https://www.ashrae.org/file%20library/technical%20resources/ashrae%20journal/2020journaldocuments/72-74_ieq_schoen.pdf
- For more information on air cleaners, see the California Air Resources Board webpage
 - <https://ww2.arb.ca.gov/our-work/programs/air-cleaners-ozone-products/air-cleaner-information-consumers>