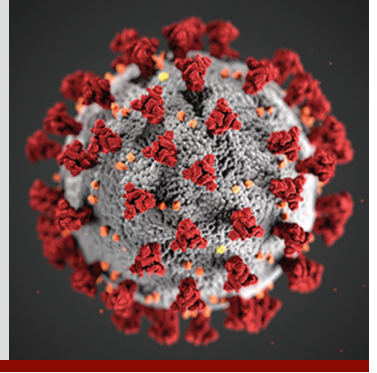


COVID-19 Prevention: Improving Ventilation in Temporary Worker Housing



Attention: Temporary Farm Worker Housing Operators and Owners

Ventilation and Other COVID-19 Prevention Measures

Ventilation improvements, including those required by WAC 296-307-161, can help prevent the spread of the COVID-19 virus in temporary worker housing by reducing the amount of potentially infectious particles in the air.

In addition to ventilation improvements, continue required use of appropriate masks including face coverings with at least two layers of tightly woven fabric for low-risk circumstances and install physical barriers where feasible. Also ensure social distancing, reduced occupancy, frequent hand washing, and appropriate cleaning and disinfection practices are in place.

Basic Ventilation Improvements

Windows and Doors: Windows are required to be open during occupancy in housing without mechanical ventilation systems — except when outdoor air is potentially hazardous due to dust storms, wildfire smoke, or pesticide drift.

Portable Fans: Use fans to increase the effectiveness of open windows, when possible; securely position window inserts to draw indoor air to the outdoors and/or set up free-standing fans to blow stale air out of a room through an open window.

- Any time you use fans, avoid generating strong room air currents and blowing air directly onto occupants; when possible, aim fans to blow above head level. Cover power cords when necessary to prevent a tripping hazard.

Wall-mounted Exhaust Fans: When feasible, upgrade exhaust (suction) fans installed in restroom walls or ceilings, over cooking areas, and other locations to exceed the minimum code requirements for airflow.

- Exhaust fans mounted too close to a window or door will suck air away from those openings instead of drawing stale air from the occupied space; if this is the case, reinstall them further away from openings, when feasible.
- Make sure occupants know they must keep bathroom exhaust fans on at the maximum setting during occupancy.

Ceiling Fans: Avoid generating strong air currents in a room; reverse the flow direction of ceiling fans to draw air upward, or turn the fan off.

Portable HEPA Air Cleaners: When properly selected and maintained, air cleaners work well to provide air circulation and filtration in smaller rooms and areas that do not have mechanical ventilation; they are also helpful during times when outdoor fresh air is limited.

- Look for air cleaners with a Clean Air Delivery Rate (CADR) high enough to provide enough filtered air flow recommended for the room size.



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- Position air cleaners so they don't blow air directly towards occupants. Select models that blow air straight up or diagonally above head level.
- Keep replacement filters accessible and follow the replacement procedures and instructions per the manufacturer's instructions.
- Do not attempt to clean or disinfect filters since this will degrade their usefulness and possibly create harmful emissions.
- Move air cleaners rated for a larger room into a smaller room where occupants sleep and lower the fan speed to reduce noise.
- Don't use ozone generators, electrostatic precipitators and ionizers, or negative ion air purifiers because they can produce harmful by-products.
- Change out filters as specified by the manufacturer. Clogged filters are bad for system motors and effectiveness.
- When replacing the filter:
 - Check the filter housing to ensure a snug, even fit without forcing.
 - Use an N95 or equivalent mask and eye protection and wash hands and face after handling used filters.

Improvements for Housing with an Existing HVAC System

If housing has a HVAC (Heating, Ventilating, Air-Conditioning) system:

- Work with a knowledgeable person (e.g., an HVAC specialist or building engineer) to determine how to best meet the requirements to increase filtration and the amount of fresh outdoor air coming into the system through outside louvers or dampers.
- Instruct occupants on how to turn on the system and the requirement to keep it running during occupancy.
- Upgrade to the highest level of filtration possible. A MERV 13 filtration rating is the minimum unless the system won't sustain it. If uncertain, contact an HVAC specialist to determine the highest MERV rating the system can support.
- Adjust or relocate ceiling diffusers so they don't blow air directly down onto occupants while sleeping, cooking, or sitting.
- Supplement systems with a portable HEPA air cleaner, especially when it's not feasible to upgrade the HVAC system's filtration.
- Ensure an ample supply of replacement filters that are the correct model, size, and rating for the system.
- Follow requirements to keep a maintenance log; record the filter model chosen and its MERV rating, inspect and note the condition of the filter, and document the outside fresh air settings.

Housing with Mini-Split (ductless) or Air Conditioner Units

Many units aren't capable of reducing the amount of potentially infectious particles in the air because they:

- Only recirculate and recondition (cool or heat) indoor air; they do not bring fresh air in or move stale air out of rooms. Housing with these units will still need to rely on open windows to bring in fresh outdoor air.
- Have mesh filters that, while reusable and cleanable, are not rated to remove tiny particles from the air. Check with the manufacturer to see whether compatible filters rated as MERV 13, or better are available; if they are available, you can use them to improve the indoor air quality — similar to using a portable air cleaner.

Should these units blow air towards occupants make adjustments or relocate them to channel air away from occupants or towards the ceiling.

Consultation Services

Owners and operators of Temporary Farm Worker Housing and all Washington businesses can gain additional advice and assistance from the DOSH Consultation Program (www.Lni.wa.gov/DOSHConsultation). It is free and confidential.

Additional Information

In Room Air Cleaner Guidance for Reducing COVID-19 (ASHRAE)
www.ashrae.org/file%20library/technical%20resources/covid-19/in-room-air-cleaner-guidance-for-reducing-covid-19-in-air-in-your-space-or-room.pdf

Frequently asked questions about residences (ASHRAE)
www.ashrae.org/file%20library/technical%20resources/covid-19/residences-faq.pdf

Frequently asked questions about filtration and disinfection (ASHRAE)
www.ashrae.org/file%20library/technical%20resources/covid-19/filtration-and-disinfection-faq.pdf

Rule: Additional requirements to protect occupants in temporary worker housing from 2019 novel coronavirus (COVID-19) exposure (WAC 296-307-16102)
www.Lni.wa.gov/rulemaking-activity/AO21-01/2101CR103EAdoption.pdf

Requirements for COVID-19 Safety in Temporary Worker Housing for Agriculture poster (English/Español) (PNASH)
<https://deohs.washington.edu/pnash/sites/deohs.washington.edu.pnash/files/2020-09/TemporaryWorkerHousing-9.2020.pdf>

COVID-19 Guidance on Ventilation in the Workplace (F414-173-000)
www.Lni.wa.gov/go/F414-173-000

To learn more about how to avoid use of portable or in-duct air cleaners designed to generate ozone, visit Air Cleaner Information for Consumers at ww2.arb.ca.gov/our-work/programs/air-cleaners-ozone-products/air-cleaner-information-consumers

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