Ohio | Department of Health

Mike DeWine, Governor
Jon Husted, Lt.Governor

Lance D. Himes, Interim Director

Recommendations for Improving Building Ventilation Systems to Reduce Risk of Airborne COVID-19 Transmission

Dear Building Owners and Managers,

Since COVID-19 may be spread via droplets in the air by people with no symptoms, the Centers for Disease Control and Prevention (CDC) offers recommendations for improving building ventilation systems to help reduce the risk of airborne transmission of this disease. We are sharing CDC's recommendations with you for your consideration.

CDC's recommendations include:

- Ensure HVAC systems operate properly and provide acceptable indoor air quality for the current occupancy level for each space.
- Consider using natural ventilation (i.e., opening windows if possible and safe to do so) to increase outdoor air dilution of indoor air when environmental conditions and building requirements allow.
- Increase total air flow supply to occupied spaces if possible.
- Increase the percentage of outdoor air ventilation to potentially as high as 100% to reduce or eliminate air recirculation, with verification of HVAC system capability to ensure proper temperature and humidity control and with consideration of outdoor/indoor air quality. With a lower occupancy level in the building, this increases the effective dilution ventilation per person.
- Disable demand-controlled ventilation (DCV).
- Improve central air filtration to the MERV-13 or the highest compatible with the filter rack, and seal edges of the filter to limit bypass. Check filters to ensure they are within service life and appropriately installed.
- Evaluate and possibly modify HVAC air flow within the building to generate clean-to-less-clean air movement.
- Keep systems running longer hours, 24/7 if possible, to enhance air exchanges in the building space.
- Ensure exhaust fans in restroom facilities are functional and operating at full capacity when the building is occupied.
- Consider the use of portable high-efficiency particulate air (HEPA) fan/filtration systems to help enhance air cleaning.

These recommendations are based on CDC guidance at https://www.cdc.gov/coronavirus/2019-ncov/community/office-buildings.html and the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) recommendations for building filtration and disinfection at https://www.ashrae.org/technical-resources/filtration-disinfection#mechanical. Technical guidance to address HVAC air flow filtration and disinfection can also be found on the ASHRAE website.

If you have any questions, please contact the Ohio Department of Health, Bureau of Environmental Health & Radiation Protection, at (614) 466-1390 or BEH@odh.ohio.gov.

Sincerely,

Lance D. Himes, JD
Interim Director
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