VENTILATION AND COVID-19

June 23, 2020

EHS and Facilities Operations are monitoring guidance from the State, CDC, and other public health and HVAC standard setting organizations with regard to COVID-19 mitigation strategies in relation to HVAC systems. Currently, the view is that HVAC systems in most non-medical buildings play only a small role in infectious disease transmission, including COVID-19. However, they provide the greater benefit of supplying filtered air to allow dilution and lower potential airborne concentration in a space. The current guidance from the State on reopening offices, is to “increase ventilation rates and increase the percentage of outdoor air that circulates into the system where possible.” Therefore, the current focus is on leveraging dilution ventilation to help mitigate virus transmission, which Facilities is actively doing.

As for the frequency of filter changes, filters become more efficient with time, so Facilities’ staff are maintaining the normal filter change frequencies. A new filter provides little to no advantage with respect to minimizing COVID-19 transmission over a filter that is currently in use.

For areas with window air conditioners and unit ventilators, the State's recommendation is to maximize fresh air intake into the system. Have blowers set on low and pointed away from occupants, if possible. This not because of air transmission through HVAC systems or air conditioners, but because blowing air toward a person can carry virus from person-to-person. The same goes for use of fans. Window fans should only be used when exhausting out of the space. Free-standing fans or window fans blowing into the space can “push” air from one person to another and should not be used.

Requests have been made for purchases of stand-alone air filtering units. While they may provide some small benefit, ultimately they do little to prevent person-to-person transmission. They cannot be used to allow increased occupancy in a space, eliminate physical distancing, or to allow foregoing use of face masks. As there is no requirement for these units, they will not be centrally funded by the University. If your department chooses to purchase stand-alone units, make sure that the units only utilize HEPA filters. There are several varieties on the market that also utilize ionizers to “clean” the air, especially of odors and smoke. Units with ionizers actually produce ozone, a harmful respiratory irritant that can also worsen chronic respiratory diseases.
Ultimately, the standard practices of physical distancing, reducing occupancy, use of face masks, monitoring symptoms, not reporting to work/class when sick, disinfecting surfaces, and hand washing provide the greatest benefit to the health and welfare of University faculty, staff, and students.

RESOURCES

- State of Connecticut Sector Rules and Certification for Reopen
- CDC General Business FAQs for COVID-19
- CDC Interim Guidance for Businesses and Employers
- Guidance for Building Operations during the COVID-19 Pandemic