

GUIDANCE FOR THE RE-OPENING OF SCHOOLS

ASHRAE is a global professional society of over 55,000 members committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields. ASHRAE has established a Task Force to help deploy technical resources to address the challenges of the COVID-19 pandemic and possible future epidemics as it relates to the effects of heating, ventilation, and air-conditioning systems on disease transmission. Guidance and building readiness information for different operational conditions has been developed for several building types, including commercial; residential; schools and universities; and healthcare facilities.

Protecting the health, safety and welfare of the world's students, faculty, and administrators from the spread of SARS-Cov-2 (the virus that causes the COVID-19 disease) is essential to protecting the entire population. ASHRAE's [guidance for schools](#) provides practical information and checklists to help minimize the chance of spreading SARS-CoV-2. A summary of key general recommendations related to HVAC and water supply systems appears below. Many different HVAC system types are used in educational facilities, so adaptation of these guidelines to specific cases is necessary. *Please consult the full guidance for important details and consider reaching out to qualified design professionals for detailed analysis as needed.*

- **Inspection and Maintenance:** Consider assessing the condition of systems and making necessary repairs. All building owners and service professionals should follow ASHRAE Standard 180-2018 "Standard Practice for the Inspection and Maintenance of Commercial HVAC Systems."
- **Ventilation:** A good supply of outside air, in accordance with ASHRAE Standard 62.1-2019, to dilute indoor contaminants is a first line of defense against aerosol transmission of SARS-CoV-2. Pre- and post-occupancy purge cycles are recommended to flush the building with clean air.
- **Filtration:** Use of at least MERV-13 rated filters is recommended if it does not adversely impact system operation. If MERV-13 filters cannot be used, including when there is no mechanical ventilation of a space, portable HEPA air cleaners in occupied spaces may be considered.
- **Air Cleaning:** Air cleaners such as germicidal ultraviolet air disinfection devices may also be considered to supplement ventilation and filtration. Technologies and specific equipment should be evaluated to ensure they will effectively clean space air without generating additional contaminants or negatively impacting space air distribution.
- **Energy Use Considerations:** In selecting mitigation strategies, consideration should be given to energy use as there may be multiple ways to achieve performance goals that have greatly different energy use impact. Control changes and use of energy recovery to limit or offset the effect of changes in outdoor air ventilation rate and filter efficiency may reduce or offset energy and operating cost penalties.
- **Water System Precautions:** Buildings that have been unoccupied could have stagnant water, and water systems should be flushed to remove potential contaminants. Utilizing ASHRAE Standard 188 and Guideline 12 can help minimize the risk of water-borne pathogens such as legionella.

HVAC&R systems play an important role in minimizing the spread of harmful pathogens, and ASHRAE is ready to provide technical resources and answer questions.

The most up-to-date information for schools and universities can be found [here](#).

The most up to date information for Building Readiness for re-opening can be found [here](#).

For further assistance, please contact GovAffairs@ashrae.org.

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