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Built Environment Today

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2020-2021 ASHRAE President

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January 28, 2021

Mr. Phil Rosenfelt
Acting Secretary
U.S. Department of Education
400 Maryland Avenue SW
Washington, DC 20202

Dear Acting Secretary Rosenfelt:

Thank you for the work you are doing to protect students, teachers, and other workers in America's educational facilities during the coronavirus pandemic. As you distribute funding from the recently enacted Consolidated Appropriations Act of 2021, I hope you will also share technical information from ASHRAE that can guide these investments and optimize outcomes.

ASHRAE, the American Society of Heating, Refrigerating and Air-Conditioning Engineers, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. In March 2020, ASHRAE established an Epidemic 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 has been developed for several building types and operational conditions, including for school buildings and facilities. This includes [guidance for school buildings](#) and [guidance on reopening schools and universities](#).

The Consolidated Appropriations Act of 2021, which was signed into law on December 27, 2020 provides an additional \$82 billion for the Education Stabilization Fund to prevent, prepare for, and respond to the coronavirus. Within that allocation, and per Section 313, the Secretary is to allocate 67% of these funds to elementary and secondary schools through State educational agencies. The funds can be used for a variety of purposes including "School facility repairs and improvements to enable operation of schools to reduce risk of virus transmission and exposure to environmental health hazards, and to support student health needs," and for "Inspection, testing, maintenance, repair, replacement, and upgrade projects to improve the indoor air quality in school facilities, including mechanical and non-mechanical heating, ventilation, and air conditioning systems, filtering, purification and other air cleaning, fans, control systems, and window and door repair and replacement."

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To help guide these investments so that they maximize health and educational outcomes, we respectfully request that the Department of Education share with states and local educational agencies ASHRAE's [guidance for school buildings](#) and [guidance on reopening schools and universities](#) that has been developed by ASHRAE's Epidemic Task Force. A summary of this guidance is included as an attachment to this letter.

We look forward to hearing from you and hope to be of service. If you have any questions, or would like to schedule a briefing, please contact me or have your staff contact ASHRAE's government affairs office at GovAffairs@ashrae.org. Thank you for your attention to the health and safety of the public, which can advance educational outcomes.

Sincerely,

Handwritten signature of Charles E. Gullledge III, P.E. in black ink.

Charles E. Gullledge III, P.E., FASHRAE, HBDP, LEED AP
2020-21 ASHRAE President

Enclosure

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.

The information above is provided as a service to the public. While every effort is made to provide accurate and reliable information, this is advisory, and is provided for informational purposes only. They are not intended and should not be relied upon as official statements of ASHRAE.